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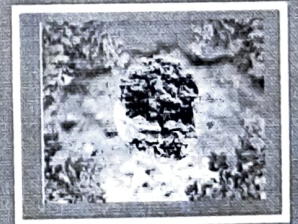
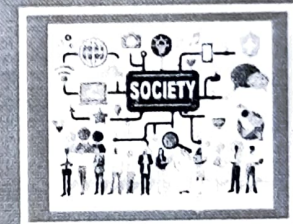
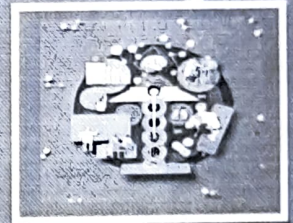
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Address
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Thodga Road, Ahmadpur, Dist- Latur 413515 (MS)



M. S. Prasad
S.A. Ravavikar

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On

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Effectiveness of a Gratitude Intervention in Increasing Gratitude

Shraddha A. Ravavikar¹ Dr. Mrunal A. Bhardwaj²

¹Asst. Professor, M. V. P.'s ASC College, Ozar (Mig)

²Professor and Head, Department of Psychology, Graduate and Post Graduate Centre
L. V. H. College, Nashik

Abstract

The main objective of this empirical research is to test the effectiveness of gratitude increasing intervention on college students. The field experiment carried on one hundred junior and senior college students (fifty percent females) showed that the intervention was efficacious in improving the level of gratitude of the subjects.

Key words: Gratitude, gratitude increasing intervention

Effectiveness of a Gratitude Intervention in Increasing Gratitude

Introduction

"Gratitude is a vaccine, an antitoxin, and an antiseptic." John Henry Jowett, the great British preacher has described the unquestionable value of gratitude in this famous quote. In most of the religions all over the world like Hindu, Buddhist, Muslim, Christian, and Jewish traditions, it is considered as an esteemed human tendency (Emmons et al., 2003). Psychologists also consider gratitude as one of the important virtues and strengths of human being. The positive psychology movement has brought in light many of the human virtues and gratitude is one of them. Eminent positive psychologists Peterson and Seligman have included gratitude in their VIA Classification of Strengths (Peterson & Seligman, 2004) which serves as the antithesis of DSM.

The term originated from the Latin impression of *gratia*, involves the feelings of grace, appreciation and graciousness (Emmons et al., 2003). The definition of gratitude is an emotional state that requires person to acknowledge that he has received some positive outcome from an external source (Emmons and McCullough, 2003). The focus of gratitude is directed toward another person (Emmons and Mishra, 2011). The person may feel grateful for other human beings as well as non-human things. It also involves appreciating the benefits received from others and a feeling of reciprocation for the giver or extend the feeling to others (Froh et al., 2010).

The strong correlations between gratitude and healthy psychological and social functioning (McCullough et al., 2002) makes it even more desirable virtue. As compared to lesser grateful individual, individuals with high gratitude describe themselves as optimistic, vital, higher on life satisfaction and less depressed and not jealous of others. Such people are more helpful, sympathetic, are forgiving in nature. Gratefulness leads to the enhancement in feelings connectedness and of perceived social support (Wood et al., 2008). While describing the blessings of gratitude, Roberts R. C. (2004), states that it eliminates the painful emotions of resentment, regret and envy and protects happiness. Like other positive emotions gratitude also broaden and builds (Fredrickson, B. L. 2004). Armenta et al., (2016) came up with the idea that expressing gratitude leads to the efforts for self-improvement via augmentations in connectedness, elevation, humility and indebtedness. The supportive evidences offered by the researchers make the idea very convincing.

Rationale of the Study

The rationale behind the present experiment is the malleability of gratitude to the interventions. Considering the psychological and social benefits of gratitude, positive psychologists tried to cultivate gratitude through positive activity interventions. And thankfully previous research has proved that gratitude is malleable to such interventions. Three types of gratitude interventions are used to bring more gratitude in subjects i.e., listing events of gratitude, expressing gratitude in behaviour and thirdly contemplating on gratitude (Rash et al., 2011). Also, there are many psychological benefits of cultivating gratitude. Emmons & McCullough (2003) have found that people keeping gratitude journals were more superior in amount of exercise they are doing, in the level of optimism about the upcoming week and feelings about their lives as compared to the people who kept the journal of stressful life events or neutral events. The subjects maintaining gratitude journal also reported being more enthusiastic, alert and determined. Gratefulness reflection also enhances positive affect (Watkins et al., 2003). In an intervention of eight weeks, Toepfer & Walker (2009) found that subjects from experimental group who wrote three gratitude letters per week showed increase in their level of happiness as well as gratitude.

In view of the robust background of the previous research, the investigators of the present study designed an intervention to increase gratitude and tested its effectiveness. While designing the intervention, the three types of gratitude increasing activities are incorporated together to make the intervention more effective. Also, it brings newness and freshness in the activities which is an important component of successful intervention.

Objective

The present research aims to study the effectiveness of a gratitude intervention in increasing gratitude

Hypothesis

A level of gratitude will be greater in students from Experimental group following the Gratitude Intervention than students from Control group

Methodology

Method

After selecting the total 100 students for this field experiment, they were assessed for their initial level of Gratitude (pre-test). After twenty-one days of intervention, again the level of Gratitude was measured at post-test.

Research Design

This field experimental study followed a classical 'Pretest- Posttest Control Group Design'. The design necessitates random assignment of subjects into two groups i.e., Experimental Group and Control Group.

Sampling

A convenient sample of one hundred undergraduate and post-graduate college students (females = fifty percent) of the ages of eighteen to twenty-five (Mean = 21.35, SD = 1.49) of M. V. P.'s Arts, Science and Commerce College, Ozar Mig and L. V. H. College, Nashik, Maharashtra were selected as subjects.

Tools

Gratitude Questionnaire-6 (McCullough et al., 2002)

The self-report battery using seven-point Likert scale is used to collect responses of the subjects. It is developed by McCullough et al. (2002). Inter-Item Consistency-Cronbach's alpha estimates for the six-item totals have ranged from .76 to .84 (McCullough, Emmons, & Tsang, 2002; McCullough, Tsang, & Emmons, 2002). Concurrent validity with self-report measure is $r = 0.65$ and peers' ratings is $r = 0.33$

Analysis and Data Analysis

Analysis of Variance is done to know whether experimental group has benefitted from the gratitude intervention and differ from control group in terms of level of gratitude. The calculated value of ' F_x ' of 1.42 ($df = 2, 98$) for GQ-6 is found insignificant at both the 0.01 (critical value = 3.95) and 0.05 (critical value = 6.92) levels. It elucidates that the control group and experimental group did not differ at pre-test. Though, the calculated value of ' F_y ' of 5.45 ($df = 2, 98$) is found significant at 0.05 level but not at the 0.01 level. The scores clarify that the groups were significantly different in Gratitude after the intervention. In short, the control and treatment group were not different in their level of Gratitude in the beginning of experiment though they were significantly different at the time of post-test.

Test	F ratio	F(df= 2, 98)
GQ-6	$F_x(\text{pre-test})$	1.42
	$F_y(\text{post-test})$	5.45*

*Significance at 0.05 level; GQ-6: Gratitude Questionnaire-6

The ' t ' test is done to analyse further the difference between two groups considering the significance of F_y values. As predicted, we found a statistically significant difference between the means of pre-test ($M = 27.7$, $SD = 8.32$) and post-tests ($M = 30.67$, $SD = 6.59$) of experimental group. The value of ' t ' (1.94) exceeds the critical value of 1.66 at 5% level. But no statistically significant difference was found between the means of pre-test ($M = 28.5$, $SD = 4.07$) and post-test ($M = 28.5$,

SD=4.07) of control group as the value of 't' does not exceed the critical value of 1.66 at 0.05 level. Hence, the hypothesis can be accepted at the 0.05 level of significance.

Conclusion

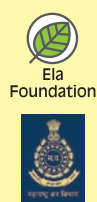
The present study attempted to evaluate the efficacy of a gratitude intervention in increasing level of gratitude. The statistical analysis showed that a level of gratitude is greater in students from Experimental group following the Gratitude Intervention than students from Control group. So, it can be ascertained that the intervention is effective in augmenting gratitude. The newness and variety in the activities and incorporating three types of gratitude increasing activities might have contributed in accomplishing higher levels of gratitude in experimental group.

Recommendations

The effectiveness of this intervention can be tested on the subjects of different age groups. The gender differences in gratitude can be explored in further research. An accompanying research that explores the gender differences in benefits of such interventions can also be conducted.

References

1. Armenta, C. N., Fritz, M. M., & Lyubomirsky, S. (2017). Functions of positive emotions: Gratitude as a motivator of self-improvement and positive change. *Emotion Review*, 9(3), 183-190.
2. Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377-389.
3. Emmons, R. A., & Mishra, A. (2011). Why gratitude enhances well-being: What we know, what we need to know. *Designing positive psychology: Taking stock and moving forward*, 248-262.
4. Fredrickson, B. L. (2004). Gratitude, like other positive emotions, broadens and builds. *The psychology of gratitude*, 145, 166.
5. Froh, J. J., Bono, G., & Emmons, R. (2010). Being grateful is beyond good manners: Gratitude and motivation to contribute to society among early adolescents. *Motivation and Emotion*, 34(2), 144-157.
6. Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. A. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies*, 12(2), 289-302.
7. Rash, J. A., Matsuba, M. K., & Prkachin, K. M. (2011). Gratitude and well-being: Who benefits the most from a gratitude intervention?. *Applied Psychology: Health and Well-Being*, 3(3), 350-369.
8. Roberts, R. C. (2004). The blessings of gratitude: A conceptual analysis. *The psychology of gratitude*, 58-78.
9. Toepfer, S. M., & Walker, K. (2009). Letters of Gratitude: Improving Well-Being through Expressive Writing. *Journal of Writing Research*, 1(3).
10. Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality: an international journal*, 31(5), 431-451.
11. Wood, A. M., Maltby, J., Gillett, R., Linley, P. A., & Joseph, S. (2008). The role of gratitude in the development of social support, stress, and depression: Two longitudinal studies. *Journal of Research in personality*, 42(4), 854-871.



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Species composition, diversity and distribution along an elevational gradient in Oak-dominated forests of Pir Panjal range in Jammu and Kashmir

Mohd Junaid Jazib

[Department of Environmental Sciences, Govt PG College Rajouri, Jammu and Kashmir (India).

Email: junaidjazib@gmail.com]

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Abstract

The study was conducted in Oak-dominated temperate forests of Rajouri district of Jammu and Kashmir (India) to assess the impact of altitude on species composition and diversity. A total of 32 woody species were encountered in the study area lying between 1200m and 2500m elevation. Three species of Oak viz. *Quercus leuchotrichophora*, *Q. floribunda* and *Q. semecarpifolia* were found to be dominant or co-dominant in the area. *Q. leuchotrichophora* shared the maximum acreage at all elevations. Its associate species, however, remained changing across the elevational gradient. Results revealed that the phytosociological characteristics of the studied forests vary remarkably in response to changes in altitude. Stem density decreased while total basal area was found to increase with altitude. No of species was maximum at lowest altitude and steeply decreased with rise in altitude. Diversity indices (Margelef Index, Menhinik Index, Shanon Wiener Index, etc.) showed evident decline in their values with altitude. However, an unexpected dip due to anthropogenic pressure at middle elevation range was also observed. These forests demand urgent attention for their conservation and management.

Keywords: Ecosystem, forest, elevation, biodiversity, community composition, environmental factors.

Introduction

Forest ecosystems are believed to be the great storehouses of biodiversity (Thomson et al., 2011). They are evolved and influenced by a multitude of environmental factors. Vegetation in a forest ecosystem is a function of time (Kharakwal, et al., 2005), but its ecological attributes (like community structure, floral

composition, diversity, etc.) are mainly determined by its geographic location, climatic regime, soil conditions and other environmental factors. Vegetation complex, even within a particular region, does not remain uniform in time and space. It fluctuates in a cyclic way with changing seasons and in a succession over the years (Heady, 1958). Flora of a place responds to and gets shaped by the changes in factors like altitude, climate, soil conditions and natural and anthropogenic disturbances. Variation in community characteristics across environmental gradients is a major topic of ecological investigations and has been often described with reference to climate, biotic interaction, habitat heterogeneity and history (Givnish, 1999; Willig et al., 2003; Currie and Francis, 2004; Qian and Ricklefs, 2004; Bohra et al., 2010; Amissah, et al., 2014; Khaine, et al., 2017)). Elevation is recognized as a fundamental factor that influences forest community structure, species composition, diversity, density, regeneration and other ecological attributes of vegetation (Sharma et al., 2009, 2010; Gairola et al., 2011; Kessler 2001; Schmidt et al., 2006; Zhang et al., 2006). It is one of the most important governing factors responsible for regional differences in species composition particularly in the Himalayan region (Sharma et al. 2016). Altitude in itself represents a complex combination of many related factors like topography, water availability, soil characteristics, climate, etc. (Ramsay and Oxley, 1997) which greatly affect floral composition of an area (Holland and Steyn, 1975). As geographic and climatic conditions change abruptly along an altitudinal gradient (Kharkwal, 2005), they affect the presence, density, dominance and distribution of plant species.

Effects of altitude on vegetation have been analyzed by various workers in different parts of the world (Whittaker, 1972; Pavon et al., 2000; Mota, et al., 2017; Acharya et al., 201; Ahmed, 2006) and particularly in the western Himalayas (Saxena et al., 1985; Adhikari et al., 1995; Kharkwal et al., 2005; Singh et al., 2009). A great majority of them has confirmed the decline of biodiversity with increasing elevation. Several studies, however, reported peak values of species richness at middle altitudes (Rahbek, 1997; Grytnes and Vetaas, 2002; Kharkwal et al., 2005) yet some other studies have shown a linear relationship between species richness and altitude (Givnish, 1999) and have given other explanations for the same. Changes in forest composition along elevational transects in the western

Himalayan region are, thus, evident, but they require proper and detailed measurement (Chitale et al., 2014; Sharma et al., 2014) especially in areas which are ecologically least investigated. Although a good amount of such information is available for rest of the Himalayan region, very few studies were conducted on elevational gradation of vegetation in Jammu and Kashmir. Vegetation composition with reference to altitude has been evaluated by several workers in parts of Jammu province (Raina and Sharma, 2012; Sharma and Raina, 2013), Pak administered parts of J&K (Shaheen et al., 2012) and Kashmir valley forests (Rather, 2014). But No such study has been carried out in the Pir Panjal Himalayan range (Rajouri and Poonch districts of Jammu and Kashmir) which forms a distinct region and is even taxonomically underexplored despite its rich flora (Dar et al., 2014). Present investigation was carried out in temperate broadleaved Oak dominated forests of Rajouri (southern slope of Pir Panjal mountain range) to assess the effects of altitude on stand structure, species composition, diversity, dispersion pattern and other ecological attributes of vegetation. Pure or mixed stands of Oak (*Quercus* sp) form the principal floral group on the southern slopes of the range between 1200m and 3500m elevation. The area is dominated at various altitudinal ranges (1300-3500m) by one or the other species of Oak particularly *Quercus leucotrichophora* which is, ecologically as well as socio-economically, a highly valued plant of the region. These forests are also the main representatives of the temperate broadleaved Himalayan forests in Jammu and Kashmir. The approach adopted in this investigation is direct gradient analysis in which aspects of community composition, structure, diversity and dynamics are simply analysed with reference to the changes in evident ecological factors. The present work would be helpful and fundamental in generating baseline data and developing sound conservation and management strategies for the region. It may also help in understanding and predicting the biological impacts of the climate change.

Materials and methodology

Study area

Pir Panjal Mountains, extending in a northwest to southeast direction across Jammu and Kashmir in India, form the largest range in the western Himalayas and support wide range of vegetation including grasslands,

scrubs and luxurious coniferous and broadleaved forests. The present study was carried out in Oak-dominated broadleaved mixed forests of Rajouri Forest Division (district Rajouri) of Jammu and Kashmir (India). The division, forming a part of southern slope of the Pir Panjal Himalayan range, lies between 74° 11' 03.03"E and 74° 40' 21.95"E longitude and 33° 08' 47.77"N and 33° 35' 05.16"N latitude with its altitude ranging from 1000-6000 m above sea level. Topography of the region is mountainous and varies from gentle slopes to very steep ridges. It is characterized by the presence of rich coniferous and broadleaved forests between 1000m to 3500m elevational range. Fourteen percent (13.96%) of total forest cover in the region (Rajouri Forest Division) comprises of broadleaved forests in which Oak is, by and large, the principal species (Anand, 2014). Major slope of the catchment area is towards south and southwest and is drained by river Ans and other tributaries of the Chenab. Climate is generally mild in lower parts and harsher and cold with heavy snowfall in upper hillocks. Average annual rainfall is 1150 mm which is mainly received through southwest monsoon during July-September. Division is, administratively, divided into three forest ranges viz. Kalakote, Kandi and Rajouri. Kandi forest range, for it sufficiently representing the entire division in terms of topography, soil, climate and vegetation type, is selected for the present work (Figure 1).

Sampling and data collection

After preliminary surveying in the area, three forest sites across a wide altitudinal range (from 1200m to 2500m) were selected for sampling. Sites were named as per their local names (Table 1). Data collection was carried out during 2017-18 using stratified random sampling technique. Twenty quadrates (each measuring 10×10m for trees and 5×5m for shrubs) were laid at each site for collection and subsequent analysis of phytosociological information. Plants with GBH (girth at breast height) >20 cm were considered as trees. Simple measuring tape was used to determine girth of trees. Physiographic features (like elevation, aspect and slope steepness) were recorded using Garmin Etrex 10 GPS device.

Data analysis

Density, frequency and abundance were calculated using standard methods. Basal area was estimated

using formula:

Basal area

Where, cbh=circumference at breast height

Basal areas calculated for species were multiplied with densities of the respective species to obtain total basal area ($\text{m}^2 \text{ha}^{-1}$). Calculation of Importance Value Index (IVI) for trees and Provenance index (PI) in case of shrub species was done as below:

IVI=Relative Density+ Relative Frequency + Relative Dominance (for tree species)

PI= Relative density + Relative frequency (for shrubs)

Distribution pattern of all the tree species was determined by abundance/frequency (A/F) ratio (also known as Whitford Index) and was categorized as regular (if $A/F < 0.025$), random (if A/F between 0.025 – 0.05) or contagious (if $A/F > 0.05$). Number of species present in a forest was taken as Species Richness (SR). Margalef index (MI) and Menhinik index (MeI) of richness were calculated as $MI = S-1/\log N$ and $MeI = S/\sqrt{N}$ where S=number of species and N= total number of individuals. Shannon–Wiener diversity index (H') and Simpson's diversity index were calculated using the formulae:

$$\text{Shannon–Wiener diversity index } (H') = -\sum_{i=1}^s p_i \ln p_i$$

$$\text{Simpson index of diversity } (SI) = 1 - \left(\sum_{i=1}^s (p_i)^2 \right)$$

where, p_i is the proportion of i^{th} species and S is the number of individuals of all the species. Simpson index of diversity was expressed as $1-C_d$ to avoid confusion.

Peilou's index of evenness (e) was calculated as $e = H'/\log N$, where H' is Shannon Wiener index and N is total number of species present.

Results

Composition: A total of 32 species of trees (20) and shrubs (12) belonging to 30 genera were recorded from the entire study area. Three species of Oak viz. *Quercus leucotriphora*, *Q. floribunda* and *Q. semecarpifolia* showed their dominance and/or co-dominance all across the study area. 14 species of trees were found growing at site I, 6 at site II and 7 at site III. 8, 6 and 4 species of shrubs were found at sites I, II, III respectively. Total density (individuals/ha) of trees was observed to be 975 at site I, 840 at site II and 770 at site III. Density of shrubs was found 380, 270 and 225 at sites I, II and

III respectively. Total basal area (m²/ha) of trees was calculated to be 68.84, 133.04, 100.33 and 72.66 at sites I, II, III and IV respectively. Whitford Index (Abundance/Frequency ratio) ranged between 0.01 to 0.20 for trees and 0.03 to 0.69 for shrubs (Table 2, Table 3 and Table 4).

At the lowest altitude i.e. 1200-1600m (Table 2), *Quercus leucotrichophora* (IVI=148.410) was followed in terms of highest density, frequency and IVI values by *Quercus floribunda* (IVI=16.470), *Pyrus pasia* (16.470), *Rhododendron* (IVI=16.369), *Punica granatum* (IVI=15.146), *Ficus palmate* (IVI=13.103), *Pinus roxburghi* (IVI=11.941), *Zanthoxylum armatum* (IVI=9.004), *Celtis australis* (IVI=10.772), etc. Among shrubs, *Berberis lyceum* (PV=45.744), *Indigofera heterantha* (PV=34.308), *Rubus ellipticus* (PV=31.839), *Sarcococca saligna* (PV=26.901) were the prominent species.

Mid elevation i.e. 1600-2000m (Table 3) showed *Quercus floribunda* becoming more prominent with IVI=39.216 followed by *Aesculus indica* (IVI=22.882) and *Rhododendron arboreum* (IVI=35.423). *Berberis lyceum* (PV=52.020), *Viburnum grandifolium* (PV=34.848), *Elaeagnus umbellate* (PV=32.492) and *Rosa maschuta* (PV=28.114) were prominent in the shrub layer.

At higher elevation i.e. 200-2500m (Table 4), *Quercus floribunda* (54.399) became even more ubiquitous. *Quercus semecarpifolia* (IVI=11.924) started appearing at this altitudinal range. *Boxus wallichiana* (IVI=31.210) was another important endemic species of this range. Other associate tree species of this altitude included *Pyrus pasia* (19.345), *Aesculus indica* (11.996) and *Lyonia ovalifolia* (8.259). *Viburnum grandiflora* (PV=69.048), *Skimmia laureola* (PV=52.540) and *Berberis aristata* (PV=48.571) were present among shrubs.

Highest density (975) of tree species was observed at lowest altitude (1200-1600m) and it decreased with increase in altitude (lowest recorded equal to 770 individuals/ha). Similar trend existed for shrub layer with maximum 380 at lowest elevation and minimum 225 at highest elevation. Total basal area of trees, however, was found to be lowest (68.84m²/ha) at lower elevational range and highest (133.04m²/ha) at the mid altitude.

Species Diversity

Species richness and diversity indices varied across the stands studied, but not much significantly between middle and higher altitudes (Table 5). Shannon-Wiener

Index was highest (1.99 for trees) at lower elevation and almost similar at middle (0.93) and higher altitudes (0.96). However, it gradually decreased (1.93, 1.84 and 1.34) for shrub layer moving from lower to higher elevation. Simpson's diversity index was minimum (0.70 for trees and 0.73 for shrubs) at 1200-1600 altitudinal range. Margelef index values ranged from 0.74 to 1.88 for trees and 0.73 to 1.17 for shrubs whereas Menhenick index was found between 0.20 to 0.44 for trees and 0.33 to 0.41 for shrubs, with their maximum values for trees and shrubs at lowest altitude. These values showed a decreasing trend from lower to higher altitudes. Peilou's evenness index (J') was calculated to be highest (1.20) at the middle altitude (0.49 to 0.75 for trees and 0.92 to 1.92 for shrubs).

Highest number of species (SR) for trees (14) and shrubs (08) was found at 1200-1600m elevation. However there was no significant difference in this respect between middle and higher altitudes.

Discussion

Altitude is an important environmental gradient that offers significant variations in vegetation characteristics due to its direct impact on microclimate (Adhikari, 2015), especially in mountain regions for greater and abrupt environmental changes across a relatively small geographic range (Zhang et al., 2006). Studies conducted in various parts of the Himalayas have indicated remarkable differences in species composition, distribution pattern and diversity attributable to altitudinal impact (Adhikari et al, 2015; Sharma et al., 2009, 2010; Gairola et al., 2011; Kharkwal, 2005; Acharya et al, 201; Ahmed, 2006; Kharkwal et al., 2005; Singh et al, 2009). Present study was an attempt to assess the effect of altitude on Oak and its associate species along an elevational gradient in forests of Pir Panjal belt which is ecologically still underexplored. It has revealed that three species of Oak viz. *Quercus leucotrichophora*, *Q. floribunda* and *Quercus semecarpifolia* grow abundantly between 1300m and 2500m. *Quercus leucotrichophora* exhibiting highest frequency (100%), density (420 to 495 individuals/ha), basal cover (55.61 m²/ha to 87.49 m²/ha) and IVI (148.410 to 167.248), predominates the vegetation at all the three sites. This is in accordance with the characteristic composition of temperate broadleaved forests throughout the western Himalayas where different species of oak often dominate the vegetation (Troup, 1921; Singh et al., 1984; Singh and Rawat, 2012). Values



on phytosociological aspects obtained in the present study are comparable with those observed by other workers for similar vegetations in Uttarakhand (Lal and Laudhiyal, 2016), Kumaon (Singh and Singh, 1986), Gharwal (Singh et al, 2016), parts of Jammu (Sharma and Raina, 2013) and other parts of the Himalayas (Singh and Singh, 1986; Khera et al., 2001; Ahmed et al., 2006; Paul et al., 2018). Although *Quercus leuchotrichophora* was found dominant all across the study area, it varied in its IVI, density, abundance, frequency, etc. at different altitudinal zones. This indicates wider ecological amplitude of the species and its tolerance to biotic pressures. *Quercus floribunda* and *Q. semecarpifolia*, however, became more conspicuous respectively at middle (1600-2000m) and higher (2000-2500m) elevations. *Pinus wallichiana*, *Aesculus indica* and *Boxus wallichiana* were the most important co-dominants at lower, middle and higher elevations respectively. Similar characteristics of vegetation have been reported for the western Himalayan temperate forests by other workers (Gairola et al., 2011; Sharma et al., 2009; Singh et al, 2009). Associate species like *Rhododendron arborium*, *Pyrus pashia*, etc. were found throughout the study area (though exhibiting different values of stem density, frequency and IVI in different stands) and it signifies their wider altitudinal range and greater adaptability to varying situations. Presence of the only conifer species intermixed with Oak at lower altitudinal zone indicated the ecotonal effect which was also responsible for the maximum number of species in this zone. On the contrary certain associate species including endemic *Boxus wallichiana* and *Q. semecarpifolia* were only found at higher altitude owing to their restricted natural range. Decrease in the stem density with a rise in altitude was also in accordance with the trend observed by other workers in the Himalayan region (Gairola, et al., 2011; Acharya, et al., 2011; Shaheen et al., 2012). Basal cover for individual species as well for entire tree vegetation was, however, found maximum at mid elevation and it is due to presence of old growth forests. Majority of plant species in the study area have shown clumped distribution/dispersion (indicated by WI index values) as it is very common in natural ecosystems (Odum, 1972).

Diversity is generally believed to decrease with altitude and a similar trend was found in the present study also. The values of diversity indices (Shanon Wiener index, Simpson index of diversity, Margalef index and Menhinik index) calculated for the study area are similar

to those reported by other workers in other parts of the Himalayas (Sharma et al., 2009, 2011; Singh et al, 2016, Sharma et al., 2017). Maximum number of species and diversity indices values at lowest elevation and a steep decline upward was also due to edge effect as it bordered subtropical region. However it did not show much difference at middle and higher altitude in diversity of tree species which can be attributed to intense anthropogenic disturbances at mid elevations in the region.

Conclusion

Information on vegetation characteristics of forest areas is important from research, conservation and management point of view. Forest area investigated in the study is dominantly populated by at least three species of Oak almost all across the altitudinal gradient between 1300 and 2500m. Although *Quercus leuchotrichophora* grows abundantly irrespective of elevational zonation, the associated tree and shrub species keep replacing one another while moving across the elevational gradient. All phytosociological characteristics of the vegetation vary remarkably in response to changes in altitude. Tree species diversity decreased with altitude but an unexpected decrease at the middle range is attributed to anthropogenic pressures.

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References

- Ahmed, M., Husain, T., Sheikh, A. H., Hussain, S. S., & Siddiqui, M. F. (2006). Phytosociology and structure of Himalayan forests from different climatic zones of Pakistan. *Pakistan Journal of Botany*, 38(2): 361.
- Acharya, B. K., Chettri, B., & Vijayan, L. (2011). Distribution pattern of trees along an elevation gradient of Eastern Himalaya, India. *Acta Oecologica*, 37(4): 329-336.
- Adhikari, B.S., Rawat, Y.S. and Singh, S.P. 1995. Structure and function of High altitude forests of Central Himalaya I. Dry matter dynamics. *Annals of Botany*. 72: 237-248.
- Adhikari, Y.P., Fischer, A., Pauleit, S. (2015). Sustainable conservation perspectives for epiphytic orchids in the central Himalayas, Nepal. *Applied Ecology and Environmental Research* 13: 753-767.
- Amissah, L., Mohren, G., Bongers, F., Hawthorne, W.,



- & Poorter, L. (2014). Rainfall and temperature affect tree species distribution in Ghana. *J. Trop. Ecol.* 30: 435–446.
- Anand, K. 2014. *Revised working plan for Rajouri forest division (2014-15 to 2023-24)* published by Forest department, Jammu.
 - Borah, N., Athokpam, F.D., Garkoti, S. C., Das, A. K. and Hore, D.K. (2014). Structural and compositional variations in undisturbed and disturbed tropical forests of Bhuban hills in south Assam, India, *International Journal of Biodiversity Science, Ecosystem Services and Management*, **10** (1): 9-19
 - Currie, D. J. and Francis A. P. 2004. Regional versus climate effect on taxon richness in angiosperms: reply to Qian and Ricklefs. *American Naturalist*. **163**:780-785
 - Dar, G. H., Malik, A. H., & Khuroo, A. A. (2014). A contribution to the flora of Rajouri and Poonch districts in the Pir Panjal Himalaya (Jammu & Kashmir), India. *Check List*, 10(2): 317-328.
 - Dar, J. A. and Sundarapandian, S., 2016. Patterns of plant diversity in seven temperate forest types of Western Himalaya, India. *Journal of Asia-Pacific Biodiversity* **9** (3): 280-292
 - Gairola, S., Sharma, C. M., Ghildiyal, S. K., & Suyal, S. (2011). Tree species composition and diversity along an altitudinal gradient in moist tropical montane valley slopes of the Garhwal Himalaya, India. *Forest Science and Technology*, 7(3): 91-102.
 - Gairola, S., Sharma, C. M. and Suyal, S. 2011. Species composition and diversity in midaltitudinal moist temperate forests of the Western Himalaya. *Journal of Forest Science* **27**: 1-15.
 - Givnish, T. J. 1999. On the causes of gradients in tropical tree diversity. *J. Ecol.* **87**: 193-210. Gairola, S., Sharma, C. M. and Suyal, S. 2011. Species composition and diversity in midaltitudinal moist temperate forests of the Western Himalaya. *Journal of Forest Science* **27**: 1-15.
 - Grytnes, J. A. and Vetaas, O. R. 2002. Species richness and altitude: A comparison between null models and interpolated plant species richness along the Himalayan altitudinal gradient, Nepal. *Am. Nat.* **159**: 294-304.
 - Heady, H. F. (1958). Vegetational changes in the California annual type. *Ecology*, 39(3): 402-416.
 - Holland, P. G. and Steyn, D. G. 1975. Vegetational responses to latitudinal variations in slope angle and aspect. *Journal of biogeography* **2**: 179-183
 - Khaine, I., Woo, S. Y., Kang, H., Kwak, M., Je, S. M., You, H., ... & Yang, L. (2017). Species diversity, stand structure, and species distribution across a precipitation gradient in tropical forests in Myanmar. *Forests*, 8(8): 282-296.
 - Kharkwal, G., Mehrotra, P., Rawat, Y. S. and Pangtey, Y. P. S. (2005). Phytodiversity and growth form in relation to altitudinal gradient in the Central Himalayan (Kunamon) region of India. *Current Science* **89** (5): 873-878.
 - Khera, N., Kumar, A., Ram, J., and Tewari, A. 2001. Plant biodiversity assessment in relation to disturbances in mid-elevational forest of Central Himalaya, India. *Tropical Ecology* **42** (1): 83-95.
 - Kessler, M. (2001). Patterns of diversity and range size of selected plant groups along an elevational transect in the Bolivian Andes. *Biodiversity and Conservation* **10**:1897-1921
 - Lal, B. and Lodhiyal, L. S. 2016. Stand structure, productivity and carbon sequestration potential of Oak dominated forests in Kumaun Himalaya. *Current World Environment* **11**(2): 466.
 - Lim, M. (2016). Governance criteria for effective transboundary biodiversity conservation. *International Environmental Agreements: Politics, Law and Economics*, 16(6): 797-813.
 - Mota, G. S., Luz, G. R., Mota, N. M., Coutinho, E. S., Veloso, M. D. D. M., Fernandes, G. W., & Nunes, Y. R. F. (2018). Changes in species composition, vegetation structure, and life forms along an altitudinal gradient of rupestrian grasslands in south-eastern Brazil. *Flora*, 238:32-42.
 - Odum, W. E., & Heald, E. J. (1972). Trophic analyses of an estuarine mangrove community. *Bulletin of Marine Science*, 22(3): 671-738.
 - Paul, A., Khan, M. L., and Das, A. K. 2018. Population structure and regeneration status of rhododendrons in temperate mixed broad-leaved forests of western Arunachal Pradesh, India. *Geology, Ecology and Landscapes*, 1-19.
 - Pavon, N. P., Hernandez-Trejo, H. and Rico-Gray, V. (2000). Distribution of plant life forms along an altitudinal gradient in the semi-arid valley of Zapotitlan, Mexico. *Journal of Vegetation Science* **11**: 39-42.
 - Qian, H., Ricklefs, R. E. (2004). Taxon richness and climate in angiosperms: is there a globally consistent relationship that precludes region effect *American Naturalist*. **163**: 773-779

- Rahbek, C. (2005). The role of spatial scale and the perception of large-scale species richness patterns. *Ecol. Lett.* 8, 224e239.
- Raina, A & N. Sharma, (2012). Species composition and diversity of tree species along an altitudinal gradient in Sewa catchment of north-western Himalayas, Jammu and Kashmir, India”, *Env. Cons. J.*, 13, 1 & 2, 173-179.
- Ramsay, P. M. and Oxley, E. R. B. (1997). The growth form composition of plant community in the Equidorian paramos, *Plant Ecology* **131**: 173-92
- Rather, H. A. (2014). *Plant diversity and regeneration status in Kandi range of Kamraj forest division of Kashmir*. Ph D dissertation. Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir.
- Saxena, A. K., Pandey, T. and Singh J. S. (1985). Altitudinal variation in the vegetation of Kumaon Himalayas. in: Rao, D. N., Ahmed, K. J., Yunus, M. and S.N. Singh (eds.) *Perspectives in Environmental Botany*. Print House, Lucknow. pp. 43-66.
- Schmidt I, Zebre S, Betzin J, et al. (2006). An approach to the identification of indicators for forest biodiversity in the Solling Mountains (NW Germany) as an example. *Restoration Ecology* **14**: 123-136
- Shaheen, H., Ullah, Z., Khan, S. M., & Harper, D. M. (2012). Species composition and community structure of western Himalayan moist temperate forests in Kashmir. *Forest Ecology and Management*, 278: 138-145.
- Sharma, C. M., Mishra, A. K., Tiwari, O. P., Krishan, R., & Rana, Y. S. (2017). Effect of altitudinal gradients on forest structure and composition on ridge tops in Garhwal Himalaya. *Energy, Ecology and Environment*, 2(6), 404-417.
- Sharma C. M., Gairola S, Baduni NP, Ghildiyal SK, Suyal S. (2011). Variation in carbon stocks on different slope aspects in seven major forest types of temperate region of Garhwal Himalaya, India. *J. Biosciences* 36(4): 701-708
- Sharma, C. M., Ghildiyal S. K., Gairola, S. (2009). Vegetation structure, composition and diversity in relation to the soil characteristics of temperate mixed broadleaved forest along an altitudinal gradient in Garhwal Himalaya. *Indian Journal of Science and Technology* **2**: 39-45.
- Sharma, C. M., Baduni, N. P. and Gairola, S. (2010). Effects of slope aspects on forest compositions, community structures and soil properties in natural temperate forests of Garhwal Himalaya. *Journal of Forestry Research* **21**: 331-337
- Sharma, N., & Raina, A. K. (2013). Composition, structure and diversity of tree species along an elevational gradient in Jammu province of north-western Himalayas, Jammu and Kashmir, India. *Journal of Biodiversity and Environmental Sciences*, 3(10), 12-23.
- Singh, G. and Rawat, G. S. 2012. Depletion of oak (*Quercus* spp.) forests in the western Himalaya: Grazing, fuel wood and fodder collection. pp. 29-42. In: C. A. Okia (ed.) *Global Perspectives on Sustainable Forest Management*. In Tech Publisher, Croatia.
- Singh, H., Kumar, M., & Sheikh, M. A. (2009). Distribution pattern of Oak and Pine along altitudinal gradients in Garhwal Himalaya. *Nature and Science*, 7(11), 81-85.
- Singh, J. S. and Singh, S. P. 1986. Structure and function of the Central Himalayan Oak forests. *Proceeding of Indian National Science Academy (Plant Science)* 96, 156-189
- Singh, J. S., Y. S. Rawat & Chaturvedi, O. P. 1984. Replacement of oak forest with pine in the Himalaya affects the nitrogen cycle. *Nature* 311: 54-56.
- Singh, S., Malik, Z. A., & Sharma, C. M. (2016). Tree species richness, diversity, and regeneration status in different oak (*Quercus* spp.) dominated forests of Garhwal Himalaya, India. *Journal of Asia-Pacific Biodiversity*, 9 (3): 293-300.
- Thompson, I. D., Okabe, K., Tylisanakis, J. M., Kumar, P., Brockerhoff, E. G., Schellhorn, N. A. & Nasi, R. (2011). Forest biodiversity and the delivery of ecosystem goods and services: translating science into policy. *BioScience*, 61(12), 972-981.
- Troup, R. S. (1921). *Silviculture of Indian Trees*, Vol II, Clarendon Press, Oxford, pp 383-417.
- Willig, M. R., Kaufman, D. M., Stevens, R. D. 2003. Latitudinal gradients of biodiversity: pattern process, scale and synthesis. *Annu. Rev. Eco. Evol. Sys.* **34**: 273-309.
- Whittaker, R.H. (1972). Evolution and measurement of species diversity. *Taxon*. **21**: 213-251.
- Zhang, J. T., Ru, W, and Li, B. 2006. Relationships between vegetation and climate on the Loess Plateau in China. *Folia Geobotanica* **41**: 151-163.

Table 1 General profile of study sites

Site	Forest	Elevational range (m)	Aspect	Slope/terrain
I	Gadyog-Kanthol	1200-1600	South western	Gentle
II	Jaglaanoo-Perinar	1600-2000	South eastern	Steep
III	Badhal-Nangathub	2000-2500	Western	Gentle

Figures and Tables

Figure 1 Sampling sites in the study area

Table 2 Vegetation analysis at Site I Gadyog-Kanthol forests

Species	Density (per ha)	Total basal cover (m ² / habasal area)	Abundance/Frequency (WI)	IVI/PV
Tree species				
<i>Quercus leuocotrichophora</i>	440	55.617	0.054	148.410
<i>Quercus floribunda</i>	40	4.212	0.064	16.470
<i>Rhododendron</i>	40	1.561	0.025	16.369
<i>Bombax ceiba</i>	20	0.536	0.200	5.329
<i>Grevia optiva</i>	25	0.440	0.063	8.203
<i>Pyrus pashia</i>	110	1.696	0.036	27.495
<i>Pinus roxburgii</i>	50	1.248	0.125	11.941
<i>Puma granatum</i>	70	0.321	0.077	15.146
<i>Ficus palmate</i>	60	1.342	0.150	13.103
<i>Zanthoxylum armatum</i>	35	0.285	0.088	9.004
<i>Celtis australis</i>	35	0.642	0.056	10.772
<i>Morus alba</i>	10	0.103	0.100	3.676
<i>Melia azaderachta</i>	20	0.382	0.050	7.607
<i>Ulmus wallichiana</i>	20	0.464	0.087	6.476
Total	975	68.848		

Shrub Species				
<i>Ellaegnus umbellate</i>	30		0.075	24.107
<i>Zizipus mauritiana</i>	25		0.063	16.699
<i>Berberis lyceum</i>	100		0.063	45.744
<i>Carrisa spinarum</i>	25		0.125	11.436
<i>Indigofera heterantha</i>	75		0.083	34.308
<i>Rosa maschuta</i>	15		0.150	8.967
<i>Rubus ellipticus</i>	65		0.070	31.839
<i>Sarcococca salinga</i>	45		0.050	26.901
Total	405		Abundance/Frequency	PV

Table 3 Vegetation analysis at Site II Jaglanoo-Perinar forests

Species	Density (per ha)	Total basal cover (m ² /ha)	Abundance/ Frequency (WI)	IVI
Tree species				
<i>Quercus leucotrichophora</i>	495	87.496	0.010	167.248
<i>Quercus floribunda</i>	90	15.274	0.025	39.216
<i>Aesculus indica</i>	50	8.370	0.056	22.882
<i>Lyonia ovalifolia</i>	25	2.497	0.100	9.108
<i>Rhododendron arboreum</i>	85	16.681	0.033	35.423
<i>Pyrus pashia</i>	95	2.723	0.033	26.122
Total	840	133.041		
Shrub species				
<i>Elaeagnus umbellate</i>	55		0.138	32.492
<i>Berberis lyceum</i>	75		0.047	52.020
<i>Rubus ellipticus</i>	40		0.044	32.997
<i>Viburnum grandifolium</i>	45		0.050	34.848
<i>Rosa maschuta</i>	35		0.056	28.114
<i>Amelocissus latifolia</i>	20		0.050	19.529
Total	270			

Table 4 Vegetation analysis at Site III Badhal-Nangathub forests

Species	Density (per ha)	Total basal area (m ² /ha)	Abundance/ Frequency (WI)	IVI
Tree species				
<i>Quercus leuocotrichophora</i>	420	75.239	0.052	162.868
<i>Boxus wallichiana</i>	115	1.465	0.072	31.210
<i>Pyrus pasia</i>	55	1.095	0.061	19.345
<i>Quercus floribunda</i>	120	16.647	0.033	54.399
<i>Quercus semecarpifolia</i>	25	1.274	0.063	11.924
<i>Aesculus indica</i>	20	1.997	0.050	11.996
<i>Lyonia ovalifolia</i>	15	2.616	0.100	8.259
<i>Total</i>	770	100.333		
Shrub species				
<i>Skimmia laureola</i>	70	-	0.072	52.540
<i>Elaeagnus umbellate</i>	35	-	0.088	29.841
<i>Viburnum grandiflora</i>	75	-	0.030	69.048
<i>Berberis aristata</i>	45	-	0.031	48.571
Total	225			

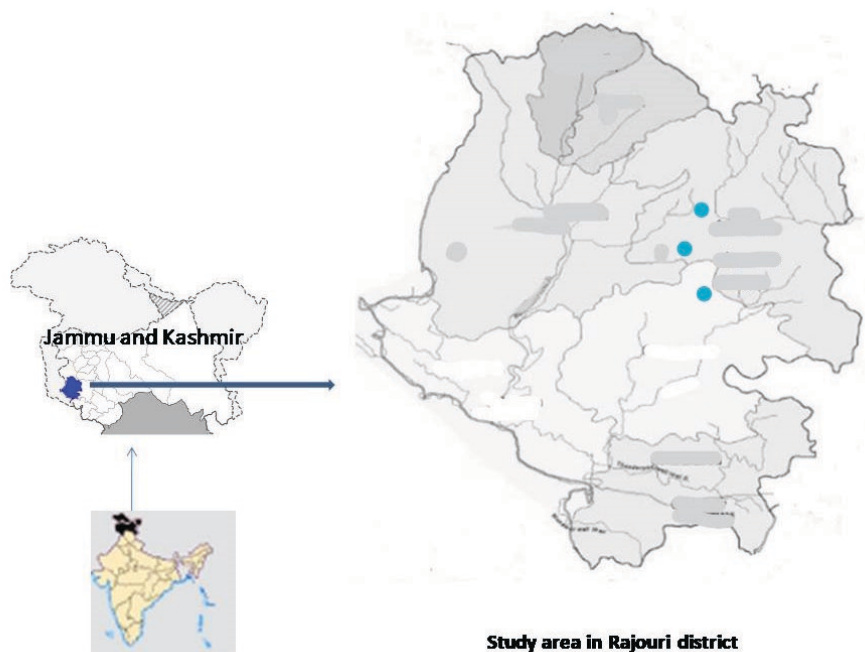


Table 5 Phytosociological analysis of study sites

Parameter	Site I Gadyog-Kanthol forests			Site II Jaglanoo-Perinar forests			Site III Badhal-Nangathub forests		
	Trees	Shrubs		Trees	Shrubs		Trees	Shrubs	
Main (Dominant) species	<i>Quercus leucotrichophora</i> , (IVI=148.41)	<i>Berberis lyceum</i> (PV=45.74)		<i>Quercus leucotrichophora</i> , (IVI=167.24)	<i>Berberis lyceum</i> (PV=52.0)		<i>Quercus leucotrichophora</i> (IVI=162.86)	<i>Viburnum grandifolia</i> (PV=69.04)	
Species Richness (Total Number)	14	8		6	6		7	4	
Margelef Index	1.88	1.17		0.74	0.89		0.90	0.73	
Menhinik Index	0.44	0.41		0.20	0.36		0.25	0.33	
Pelio Index (Evenness)	0.75	0.92		0.51	1.02		0.49	0.96	
Shanon Wiener Index (H)	1.99	1.93		0.93	1.84		0.96	1.34	
Simpson Index of Diversity (SI)	0.77	0.84		0.93	0.73		0.70	0.73	
Total Basal area (m ² /ha)	68.84	-		133.04	-		100.33	-	
Total Density (indl/ha)	975	380		840	270		770	225	

Study on Group Composition of Blue Bull (*Boselaphus Tragocamelus*) In Bhavnagar District, Gujarat, India.

Vaghela V. M.*, Dodia P. P. and Shukla A. H.

Zoology Department, Sir P. P. Institute of Science, MK Bhavnagar

University, Bhavnagar- 364001, Gujarat, India.

*Corresponding author's e-mail : viraldncs@gmail.com

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ABSTRACT:

The Blue Bull (*Boselaphus tragocamelus*) is the largest Asian antelope. Blue Bull (*Boselaphus tragocamelus*) is also called “Nilgai”. Bhavnagar district is located in Saurashtra region of Gujarat near the Gulf of Khambhat. In herbivorous animals, grouping is an essential behaviour for survival, searching of food and protection, and composition of groups differs in different herbivorous animals. This study was carried out during the year 2015 – 2016. Out of total 100 observations on Blue Bull (*Boselaphus tragocamelus*), a maximum of 31 individuals were recorded in a single group, whereas, minimum group size was of a single (01) individual. The frequency of finding male Blue Bull was 39.4 % (SD ± 04.02), female 52.7 % (SD ± 06.15) and sub adult / juvenile was 07.9 % (SD ± 01.29).

KEYWORDS: Blue Bull; Bhavnagar district; Group size; Male; Female; Sub-adult; Juvenile; Behaviour

INTRODUCTION:

In Gujarat, all four (04) species of Antelopes are found i.e. Blackbuck *Antelope cervicapra*, Indian Gazelle (*Gazella bennettii*), Four-horned Antelope (*Tetracerus quadricornis*) and Blue Bull *Boselaphus tragocamelus*. Out of these four antelope species, Blue Bull is widely distributed throughout the state. Except Four-horned Antelope remaining all three species of antelopes are found in Bhavnagar District, Gujarat. Blue Bull is the biggest Asian antelope. and is also called “Nilgai”. Bhavnagar district is located in Saurashtra region of Gujarat near the Gulf of Khambhat. In herbivorous animal grouping is the main behaviour for survival, searching for food and protection. Group composition and group size are found to vary in various herbivorous animals. In ungulates one male becomes dominant

over the group, such type of grouping phenomena was also observed in Blue Bull; normally the male Blue Bull controlled the group and were dominant over them. Blue Bull is not as gregarious as other herding ungulates like Black Buck but it occurs in small groups throughout the year.

STUDY AREA:

Bhavnagar district is located in Saurashtra peninsula of the Western part of Gujarat state. Bhavnagar district placed at $21^{\circ} - 00'$ and $22^{\circ} - 30'$ N. Latitudes and $71^{\circ} - 15'$ and $72^{\circ} - 30'$ E. Longitudes. Bhavnagar is situated 228 Km from the state capital Gandhinagar and to the west of gulf of Khambhat. Bhavnagar is the fifth largest city in Gujarat and the second largest city of Saurashtra region. Bhavnagar district covers over 8579.45 sq. Km area; it includes 269.24 sq. km of forest cover and 985.57sq. Km non agricultural land. It has an average elevation of 24 meters (78 ft). The district covers total 11 Tehsil (Taluka) till 2014, thereafter due to new territorial demarcation, state government declared Botad as new district, so some area of Bhavnagar district went to Botad district, and at present Bhavnagar district covers total 10 Tehsil (Fig. 1). Geographically, Bhavnagar district consists of diverse characteristic like uneven, rocky (basaltic) land surface traversed by mountain ranges/ridges. Soil composition of Bhavnagar district is generally good for crops of commercial value like Onion, Cotton, Groundnuts, vegetables etc. and also for the grains like *Bajara*, *Juwar* (sorghum) and Wheat etc.

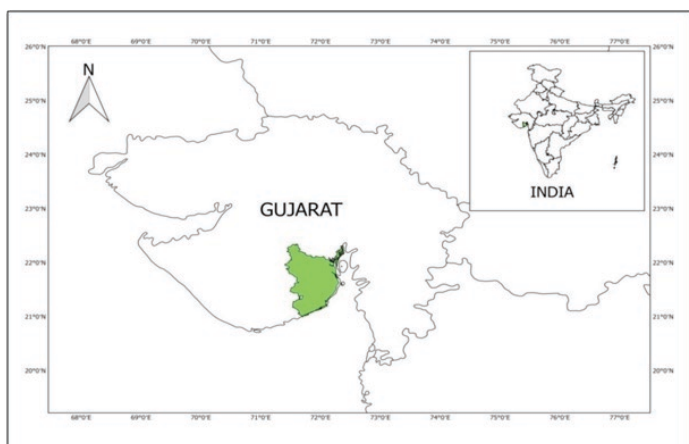


Fig.1. Map of study area.

MATERIALS AND METHODS:

Study area for the grouping behavior of Blue Bull covered Bhavnagar city to Alang ship yard, which is about 55 km. Study was carried out on both sides of Bhavnagar – Hathab - Alang road up to 2 Km in right and left sides of the area having the Agricultural land, Barren land, rural forest area and coastal saline land (Khar). Avania (Khar), Pipaliya pul, Bhumbhali, Ghogha, Kuda, Khadsaliya and Mithiviradi were selected for detailed study. Observations were made by direct method, to avoid disturbances observations were made from a distance with the help of Nikon 8X40 Binocular and Photographs were taken with the help of Sony HX 400 Camera for documentation. Data were analyzed by using standard statistical formulae using Microsoft Excel software.

RESULT:

Table 1 shows the group composition of different groups of Blue Bull in the study area; data represent the number of male, female, sub-adult and juvenile in a single group. Data also show the group size of Blue Bull (minimum to maximum); total 100 observations were taken to determine the group formation of Blue Bull, maximum number in a single group was observed to be 31 individuals and minimum number in a group was observed to be 01 individual. Data show that Blue Bull generally remain in a mixed group (49%), but some time they also form only males (35%) group and only females (16%) group, sub=adults and juveniles preferred to remain with female individuals. It was also observed that most of groups having 1- 5 individuals in a group (56%) and at the same time only few groups were found to have more than 25 individuals in a group (4%). An Average of $3.31(39.4\%) \pm 4.02$ male Blue Bull were found, an average of females was $4.43(52.7\%) \pm 6.15$ and an average of sub-adults / juveniles was recorded to be $0.67(7.9\%) \pm 1.29$. Number of male Blue Bull ranged between 0-17, number of female ranged between 0-24 and sub-adults / juveniles were 0-8.

Fig.2. shows the percent of male Blue Bull in different groups, and data shows that 20% groups did not have any male, 20% groups had single male, 19% groups with 2 males, 12% groups with 3 males, 12% groups with 4 males, 1 % group with 5 males, 1% group with 7 males, 3% groups with 8 males, 1% group with 9 males, 2% groups with 10 males, 3% groups with 11 males, 1% group with 13 males, 1% group with



Male Blue Bull



Female Blue Bull

14 males, 1% group with 15 males, 2% groups with 16 males and 1% group with 17 males were recorded.

Fig.3. shows the percent of female Blue Bull in different group, data indicate that 37 % groups did not have any female, 7% groups had single female, 17% groups with 2 females, 6% groups with 3 females, 2% groups with 4 females, 3 % groups with 5 females, 5% groups with 6 females, 4% groups with 8 females, 3% groups with 9 females, 1%, group with 11 females, 1% group with 12 females, 1% group with 14 females, 2%. groups with 15 females, 2% groups with 16 females, 3% groups with 17 females, 2% groups with 18 females, 1% groups with 19 females, 1% group with 21 females, 1% group with 22 females and 1% group with 24 females were recorded. Number of female Blue Bull ranged between 0-24.

Fig.4. shows the percent of sub-adult / juvenile Blue Bull in different group, data indicated that 68 % groups did not have any sub adult / juvenile, 14% groups had single sub adult / juvenile, 10% groups with 2 sub adult / juvenile, 4% groups with 3 sub adult / juvenile, 2% groups with 4 sub adult / juvenile, 1% groups with 5 sub adult / juvenile and 1% group with 8 sub adult / juvenile were recorded.

Group composition of male Blue Bull (Fig. 5), shows that 20% groups did not have any male, 35% groups had having only males, 15% groups had having males and females both, 02% groups had sub-adult/ Juveniles with the males and 28% groups composed

of females, males and Sub-adult/ Juveniles. Fig. 6 shows group composition of female Blue Bull, data indicate that 38% groups do not have any female, 16% groups had only females, 15% groups had females and males both, 03% groups had Sub-adult/ juvenile with the female and 28% groups composed of female, male and Sub adult/ Juvenile. Fig. 7 indicates group composition of Sub-adult/ Juvenile in the study area, 67% groups did not have any sub adult/ Juvenile, 02% groups had having sub adult/ Juvenile and male, 03% groups had sub adult/ Juvenile and female and 28% groups composed of Sub adult / Juvenile, male and female. Grouping pattern in Blue Bull differs from other ungulates like Blackbuck, Chital, Sambar, and Chinkara. Generally, Blue Bull thrives in small scattered groups and the smallest group of Blue Bull is not more than 1-5 individuals likewise the largest group of Blue Bull is not more than 20 individual often seen in the groups having more than 30 individual in the area during the study period. Presence of male and female individuals in a group is also different from that of other ungulates which normally have one or two males present in a group. But more than two male individuals were present in mixed groups of Blue Bull, likewise the presence of female individuals was two to three in a mixed group of Blue Bull. Juvenile and sub-adult males and females were also found in a group. Out of total 100 groups observed during the study, 32 groups having population of sub adult and juvenile, of which



Juvenile Blue Bull



Mixed herd of Blue Bull

only 3 groups did not have male individuals and 2 groups did not have females, but these groups had sub-adult male and not juveniles. It was also observed that all groups having sub adult and juvenile having mean group size 14.2 was higher than over all mean group size (8.41) and ranged between 3 – 31; group having 31 individual was the largest group. During non-breeding season by the process of segregation only males form a group in which only adult male individuals were found, One unique behavior of Blue Bull which was observed was that during the monsoon Blue Bull moved towards the shrub land from the open land, probably to avoid rain, hence during the monsoon large group were seen occasionally and during the winter and summer they live in open land in scattered groups.

DISCUSSION:

Findings of the study show that there was no specific group composition pattern observed in Blue Bull. According to Bayani and Watve (2016) the group may vary in a single day at different times, and similar behavior was also observed in the present study. Size of the group was also found to be different in agricultural land and forest area; in agricultural land the group remained smaller in size, whereas in forest land it became larger. It is possible that while raiding crops Nilgai herds breaks in to smaller groups which presumably reunite when they take to forest cover again. The smaller groups may have a greater tendency

to raid crops (Bayani and Watve 2016).

Generally, Blue Bull are seen scattered in one or two individual's group with 1-2 males or 2-3 females and in mixed group males, females, juveniles and sub-adults are also seen. During the non-breeding season adult and sub adult males segregate and form mixed group, only for some time. Only male group was also observed, whereas, sub-adult male Blue Bull join in to the group and form a mixed group of adults and sub-adults during the breeding season. Interestingly, a group of only adult male Blue Bull was regularly observed at Avania khar area during the study.

Observation of the present study also supports the findings of Dharmakumarsinhji (1959) and Sheffield et al. (1983) that Blue Bull is non-migratory, although individuals and groups are capable of considerable movement if ambient conditions (e.g., drought) ensue. It was observed that the Nilgai remain in the same area for long time and moves in their home range regularly which was recorded up to 8 Km². Home range of Blue Bull of the study area was quite similar with findings of Sheffield et al. (1983), home ranges of Blue in a 5,680-ha fenced area in southern Texas averaged 4.3 km² (0.6–8.1 km²).

Blue Bull remains in small groups, the group size varies in different habitat but they rarely form congregations and large groups. According to Dinerstein (1980), Nilgai occur in groups ranging from 01 to 10 individuals, and the mean group size observed in

Total Number of Blue Bull	Male	Female	Juvenile / Sub-adult	
Average of Blue Bull	.31	.43	.67	.41
Range of Blue Bull	-18	-24	-8	-31
Number of groups				--
%	.4	.7	.9	
SD	.02	.15	.29	.26

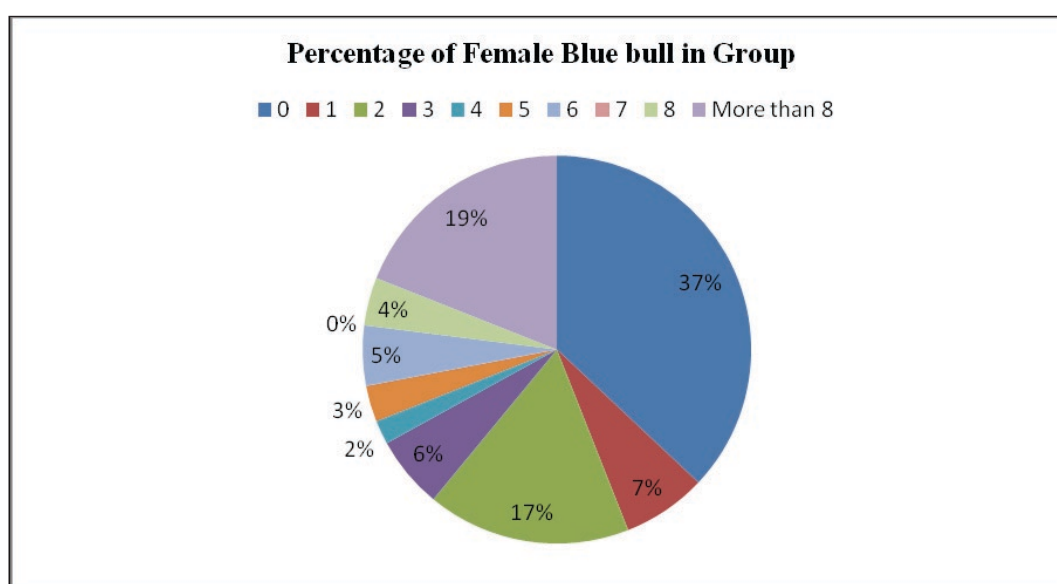


Fig.2 Chart showing the percent of the Male Blue Bull in group.

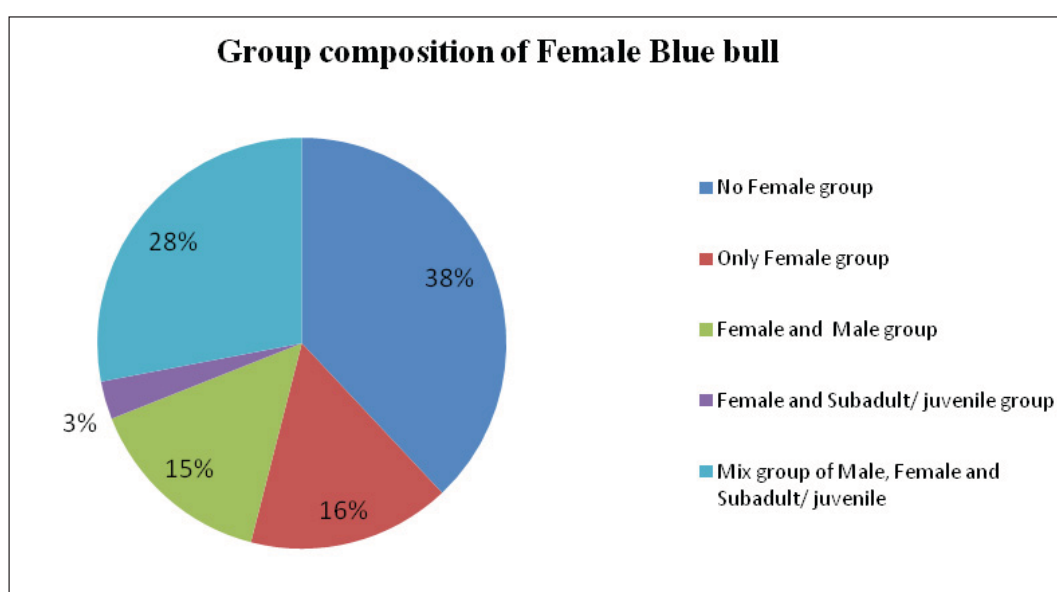


Fig.3 Chart showing the percent of the Female Blue Bull in group.

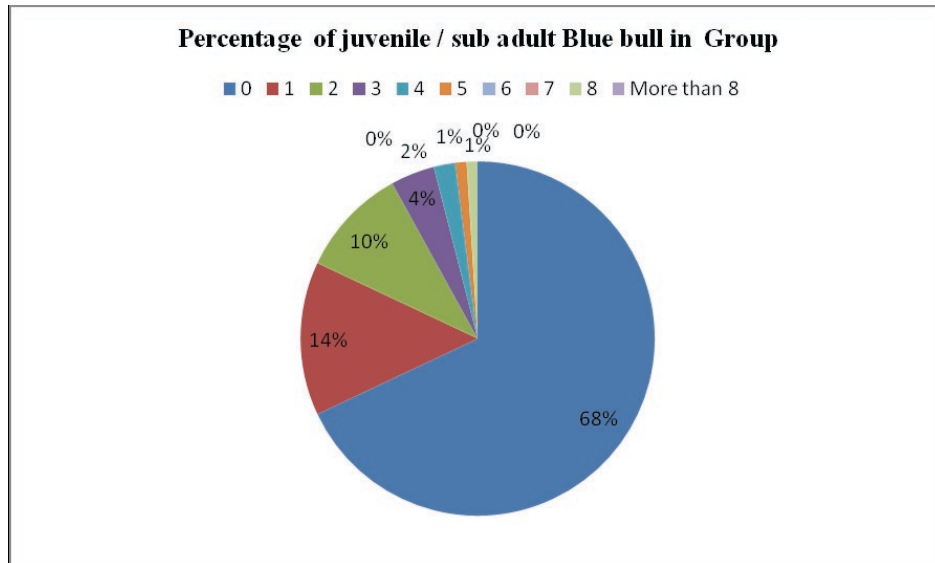


Fig.4 Chart showing the percent of the Juvenile/ Sub adult Blue Bull in group.

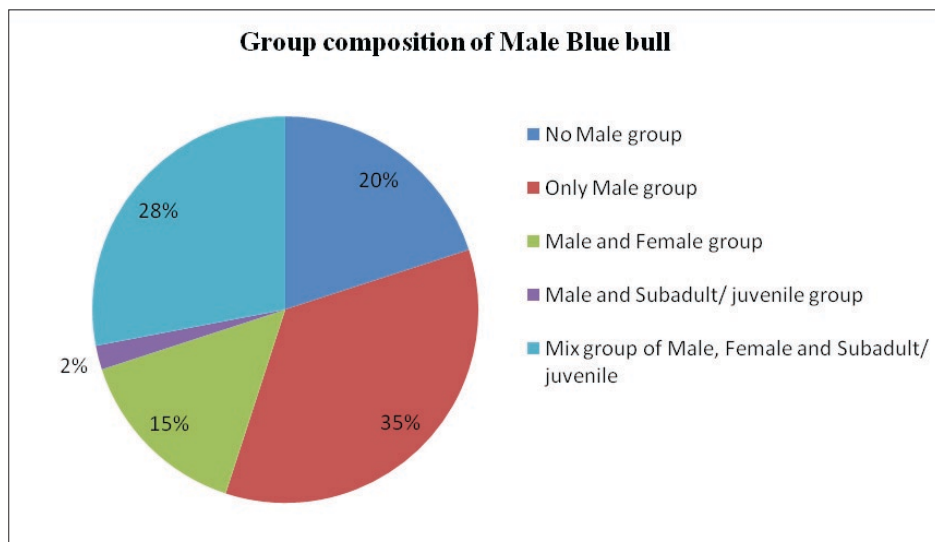


Fig. 5 Chart showing the percent of Male Bull in each group.

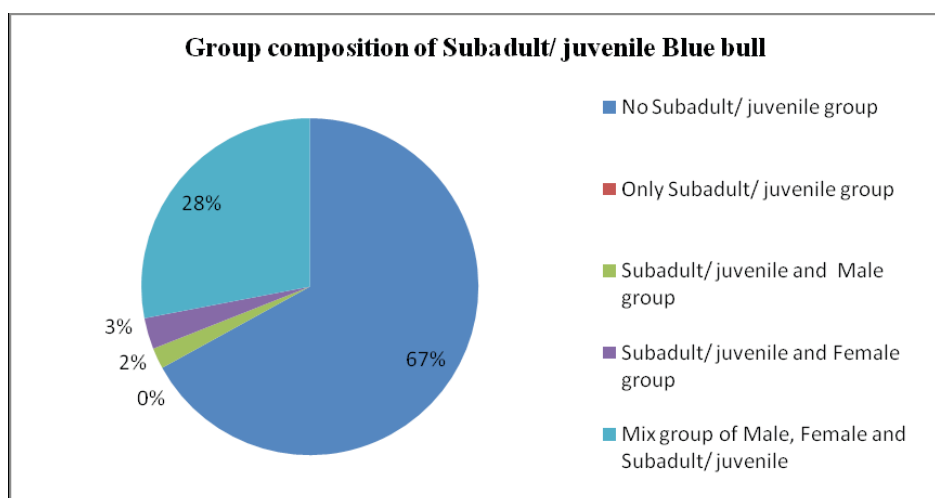


Fig. 6 Chart showing the percent of Female Bull in each group.

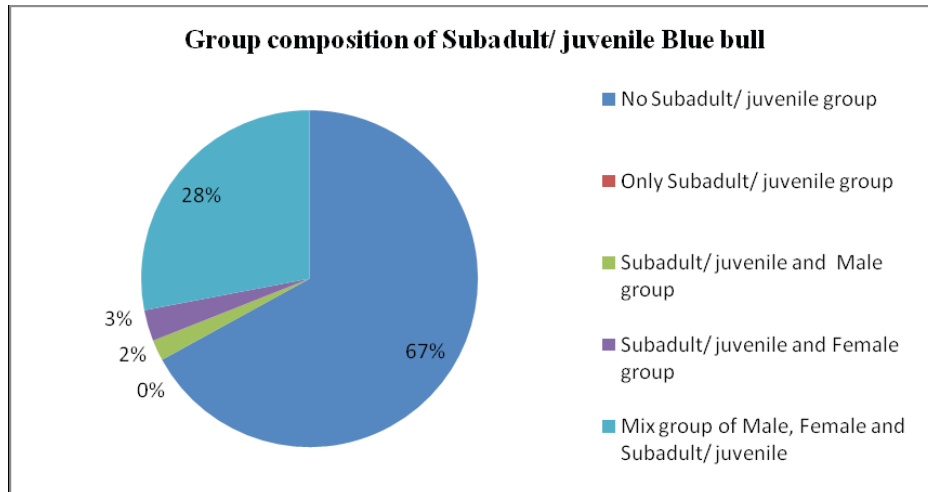


Fig. 7 Chart showing the percent of Sub-adults and juveniles in each group.

Karnali - Bardia in Nepal was 2.9. In Sariska, seasonal group size of Nilgai (excluding single individuals) varied greatly, from 02 to 43 individuals, with a mean group size of 4.0 (Sankar 2004), In Gir, Khan *et al.* (1995) reported mean group size of Nilgai as 2.2, with high seasonal variability in group sizes. In the study area average of group size was found 8.41 ± 8.26 individual per group which was higher than the above observations, but it was quite low than Khan and Khan (2016), where they recorded total of 108 groups comprising of 1845 individuals and the mean group size was found to be 17.10 ± 4.08 . The maximum number of individuals was recorded in Pala sallu (61) while the minimum was seen in Sikandarpur Cherat (1) in Aligarh district, Uttar Pradesh. In Aligarh district the Blue Bull were found to congregate in forest patch due to harassment by farmers. In Bhavnagar district the number of individual in a group varied from minimum 01 to maximum 31 individuals in a group, thereby showing that Blue Bull remain scattered in smaller groups.

Khan and Khan (2016) showed the percentage of animals in different group size categories including 26% groups comprised of 0-5 group category, 22% comprised of 6-10 group category, 20% were in the 11-15 group category, 22% in 16-20 group category and 10% in >21 group category in winter season. While in summer 11% groups comprised of 0-5 group category, 24% comprised were 6-10 group category, 13% were in the 11-15 group category, 22% in 16-20 group category and 30% in >21 group category in Aligarh district, Uttar

Pradesh. In Bhavnagar district the percent of animals in different group size category were 56% groups having 1 - 5 individuals, 13% groups having 6 - 10 individuals, 08% groups having 11 -15 individuals, 11% groups having 16 -20 individuals and 12% groups having >21 individuals. Blue Bull of the study area preferred to form small groups when animals enter crop fields for foraging.

CONCLUSION:

During the study, maximum 31 individuals were recorded in a single group, whereas minimum group size was a single (01) individual. Percent occurrence data showed that male Blue Bull were 39.4 % (SD ± 04.02), female 52.7 % (SD ± 06.15) and of sub-adults / juveniles were 07.9 % (SD ± 01.29). Data indicated that presence of female individuals was higher than the males. Data also indicated that the group pattern in the Blue Bull was different than for other herbivorous animals like Blackbuck, Spotted Deer and Sambar. Blue Bull of the study area preferred to form small groups, as small group probably because they tend to get benefitted when entering crop fields for foraging.

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REFERENCES:

- ABLES, E. D., AND RAMSEY C. W. 1972. *Indian mammals on Texas range lands*.
- Journal of the Bombay Natural History Society 71:18–25.
- ACHARJYO, L. N., AND MISRA R. 1971. *Age at sexual maturity of three species of wild animals in captivity*. Journal of the Bombay Natural History Society 68:446.
- ARYAL M. 2016. *Population status, distribution and potential threats of the Blue Bull Boselaphus tragocamelus (Mammalia: Cetartiodactyla: Bovidae) along the Tinau River of Rupandehi District, Nepal*, Journal of Threatened Taxa, 8(14): 9638–9642
- BAGCHI, S., GOYALS. P. AND SANKAR K. 2003a. *Niche relationships of an ungulate assemblage in a dry tropical forest*. Journal of Mammalogy 84:981–988.
- BAGCHI, S., GOYAL S. P. AND SANKAR K. 2004. *Herbivore density and biomass in a semi-arid tropical dry deciduous forest of western India*. Journal of Tropical Ecology 20:475–478.
- BAYANIA. ET AL. 2016. *Assessment of crop damage by protected wild Mammalian herbivores on the western boundary of Tadoba – Andhari Tiger Reserve (TATR), central India*. PLoS ONE 11:e0153854.
- CHAUHAN, N.P.S. 2011. *Agricultural crop depredation by Nilgai antelope (Boselaphus tragocamelus) and mitigation strategies: challenges in India*. 8th European vertebrate pest Management Conference. 2011. 432.104
- DHARMAKUMARSINHJI K. S. 1959. *A field guide to big game census in India*. Indian Board for Wild Life, New Delhi, India.
- DINERSTEIN E. 1979. *An ecological survey of the Royal Karnali-Bardia Wildlife Reserve, Nepal*. Part II. Habitat/animal interactions. Biological Conservation 18:265–300.
- DINERSTEIN E. 1980. *An ecological survey of the Royal Karnali-Bardia Wildlife Reserve, Nepal*. Part III. Ungulate populations. Biological Conservation 18:5–38.
- GAJERA, N., KUMAR, A., MAHATO, R., & KUMAR, V. V. 2014. *Habitat Preference and Social Composition of Antelopes in Arid Region of Kachchh, Gujarat, India*, 3(2), 164–169.
- KHAN J. A. ET AL. 1996. *Ungulate densities and biomass in the tropical dry deciduous forests of Gir, Gujarat, India*. Journal of Tropical Ecology 12: 149–162.
- KHAN. K. A. AND KHAN J. A. 2016. *Status, abundance and population ecology of Nilgai (Boselaphus tragocamelus Pallas) in Aligarh District, Uttar Pradesh, India*, Journal of Applied and Natural Science 8 (2): 1080 - 1086.
- NIKUNJ G. ET AL. 2014. *Habitat Preference and Social Composition of Antelopes in Arid Region of Kachchh, Gujarat, India*, Asian Journal of Conservation Biology, Vol.3 pp. 164-169
- SANKAR K. ET AL. 2004. *Ungulates of India, Blue Bull or Nilgai*. Envis. Bulletin: Wild life and protected areas (2004) (WII)
- SCHALLER G. B. 1967. *The deer and the tiger: a study of wildlife in India*. University of Chicago Press, Chicago, Illinois.
- SHARMA I. K. 1981. *Ecological aspects of habitat preferences, feeding, daily activities and niche of the Nilgai (Boselaphus tragocamelus)*. Tiger paper 8:21–22
- SHEFFIELD W. J. 1983. *Food habits of Nilgai antelope in Texas*. Journal of Range Management 36:316–322.
- SITE LISTED; [www. iucnredlist. Org](http://www.iucnredlist.org) [www. Time and date.com](http://www. Gujaratweather.com)

Spatial distribution pattern of endangered vultures in Sathyamangalam Tiger reserve, Tamil Nadu.

Brinda.T.¹, Umamaheswari.S.², Kumaraguru.A³ and Satheesh.N⁴

[¹Research Scholar, National College, Tiruchirappalli; ²Head of the Department, Post graduate and Research Department of Zoology, Periyar EVR College, Tiruchirappalli; ³Conservation Scientist, Biodiversity Conservation Foundation, Tiruchirappalli; ⁴District Forest Officer, Tamilnadu Forest Department.

¹Corresponding author: Email ID: brindabio@gmail.com.]

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Photo: Brinda.T.

ABSTRACT:

Vultures are obligate scavengers that play a significant role in an ecosystem as they help in prevention of disease spread. Though rapid decline of vulture population was reported from the northern India in the last decade, information from the southern part is scanty. Hence, in the present study we studied the distribution pattern of vultures in Sathyamangalam Tiger Reserve. Survey of the study area was undertaken from 2015 to 2016 to determine the distribution pattern of three critically endangered and one endangered vulture in the landscape. The distribution profile of vultures in this landscape was of great significance, as the study area lies in the junction of Western and Eastern Ghats landscape. Comparative analysis of the data revealed the highest occurrence of *Gyps bengalensis*, followed by *Gyps indicus*, *Sacrogyaps calvus* and the lowest records of *Neophron percnopterus*. The distribution pattern of these vultures suggests that they prefer moist/dry deciduous forest which enables better visibility. The spatial analysis based on drainage map and land surface temperature reveals that their soaring behaviour was facilitated by this environment leading to habitat preference.

Keywords: Gyps, obligate, scavengers, deciduous.

INTRODUCTION:

Vultures are obligate scavengers belonging to Accipitridae and Cathartidae families and are distributed in all the continents except the polar regions. Conservation of raptors is approached with the core understanding of prey-predator relationship, but the perspective of a scavenger is different as the carcass is ephemeral on the spatio-temporal scale. In this scale the availability of live prey is more abundant than carrion due to rapid assimilation of carrion, either by decomposition or scavenging (DeVault *et al.* 2003).

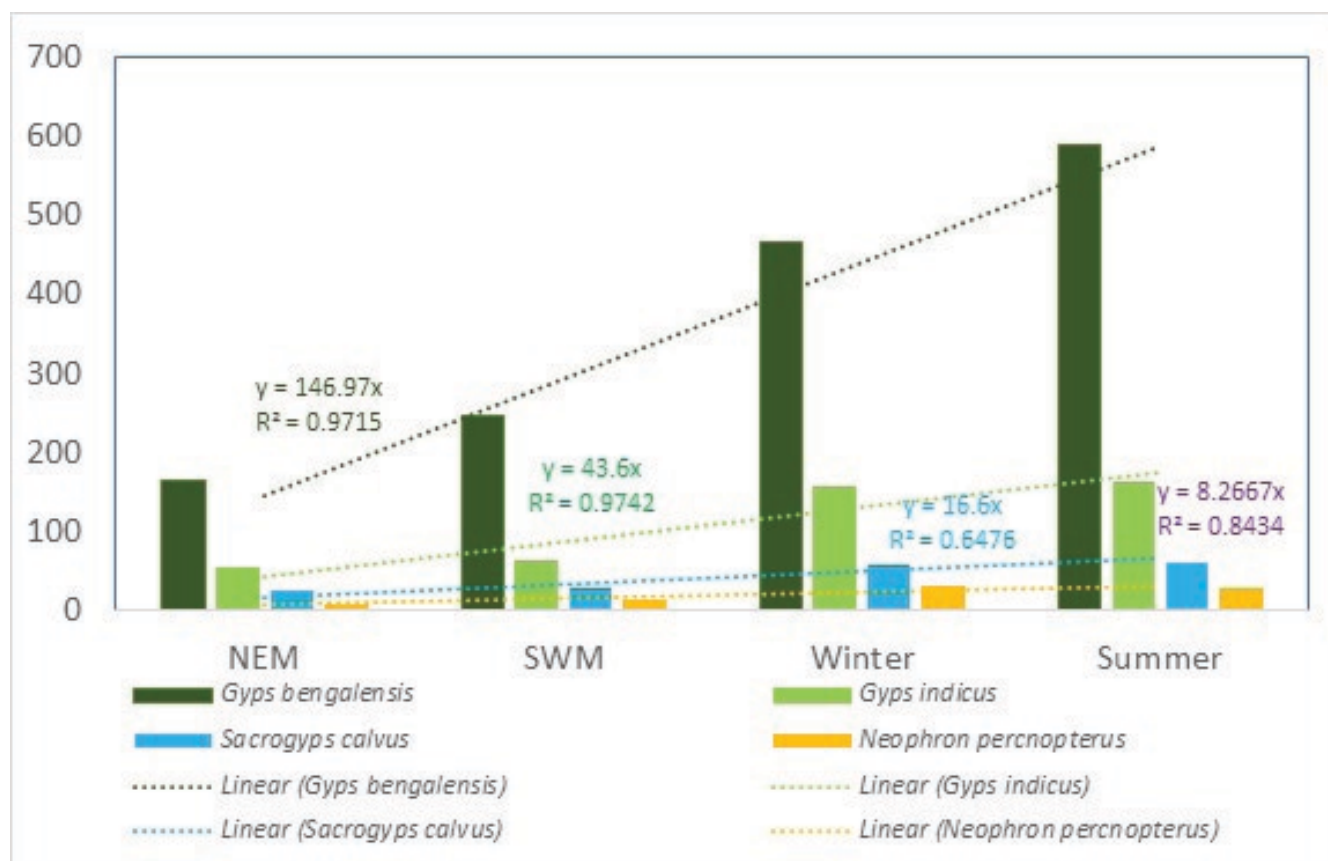


Fig.1. Record of number of individual sightings of the four vultures across the season in Sathyamangalam Tiger Reserve.

Hence, vultures as obligate scavengers exhibit both physiological and behaviour adaptations that foster their ability to locate and use carrion as a food source. Primarily, due to energy constraints they should possess the ability to fly in the soaring mode, an efficient mode of locomotion (Ruxton and Houston 2004).

Vultures by using minimal energy in soaring flight can increase their search area, effectively exchanging the spatial and temporal unpredictability of carrion at local scales for relatively predictable occurrences at much larger scales (DeVault *et al.* 2003; Ruxton and Houston 2004). The obligate scavenging vultures have highly acidic stomachs (as low as pH = 1) that probably help to decrease the pathogenic risk of high microbial loads and few to no feathers on their heads, which reduces fouling (Houston and Cooper 1975).

These adaptations in favour of their survival enabled their distribution across the world in different types of vegetation and habitats. Vultures in India were once common (Ali and Ripley., 1978) and were recorded in varied landscapes such as croplands to cliffs. In spite of the adaptations to these landscapes, vultures had significantly declined and the major reason being the

anthropogenic factors. These species are considered to be the most threatened functional group accounting to 61% of them threatened with extinction (Bird Life International, 2015; Ogada *et al.* 2010). In India, there are nine species and the status of the *Gyps* species (*Gyps bengalensis*, *Gyps indicus*, *Gyps tenuirostris*) are critically endangered and categorised in Schedule I under the Indian Wildlife Protection Act (1972). The other species investigated in this study, includes *Sacrogyaps calvus* which is regarded as critically endangered and *Neophron percnopterus* as endangered (Bird International, 2015).

In any habitat, these obligate scavengers are inextricably linked to the distribution and availability of carrion. Thus, any shift in the quantity or temporal stability of carrion resources profoundly affects the composition and dynamics of scavenging communities. The availability of carrion is highly modulated by climate (DeVault *et al.* 2003) and trophic integrity (Wilmers *et al.* 2003; Wilmers and Post., 2006). Thus, a critical research priority is to elucidate the impact of environmental factors on the survival of vultures and the anthropogenic pressure on the environmental

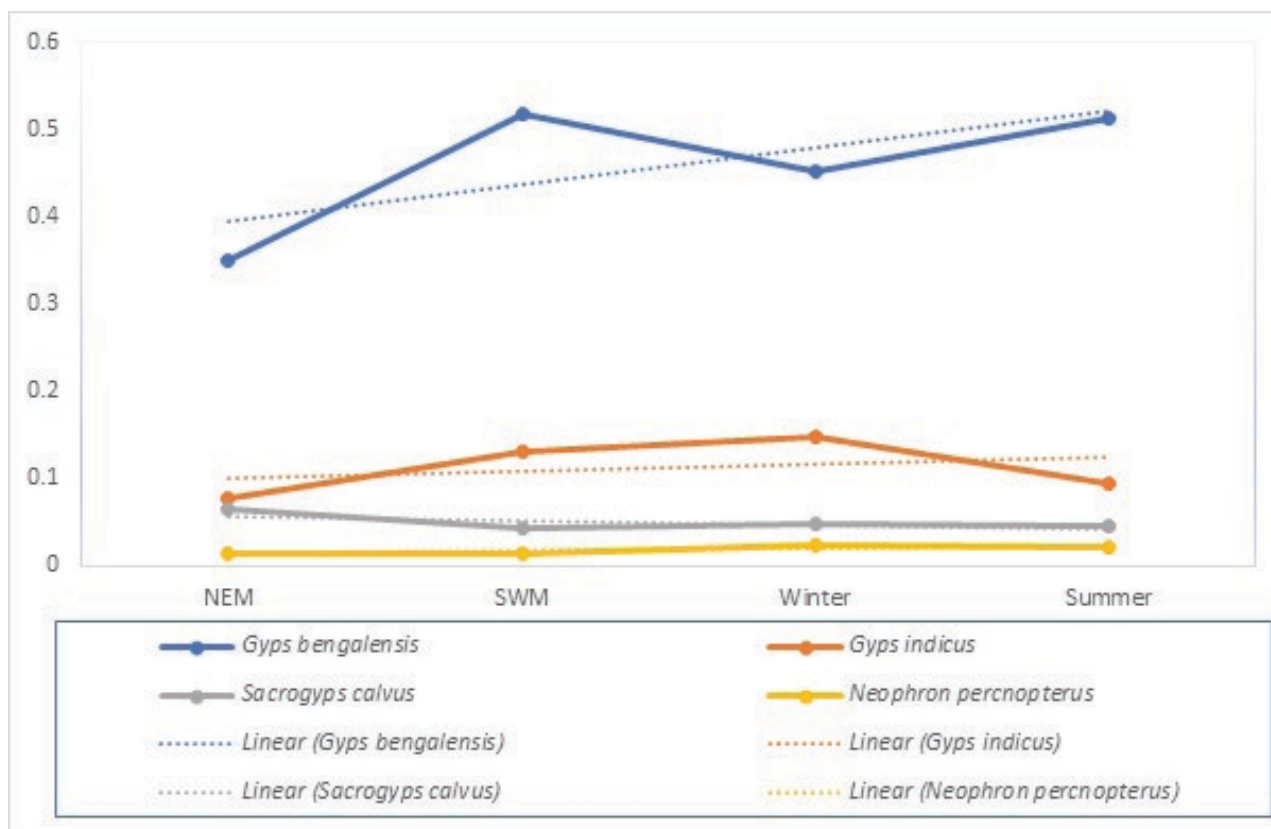


Fig.2: Encounter rates and the linear relationship of the distribution of four vulture species across the seasons

factors. With the number of vulture record in declining trend, status of these scavengers urges more research on distribution with relation to climatic conditions, forest type or vegetation. Hence, in this study, the distribution pattern of four vultures in relation with vegetation, drainage and land surface temperature were analysed using remote sensing data.

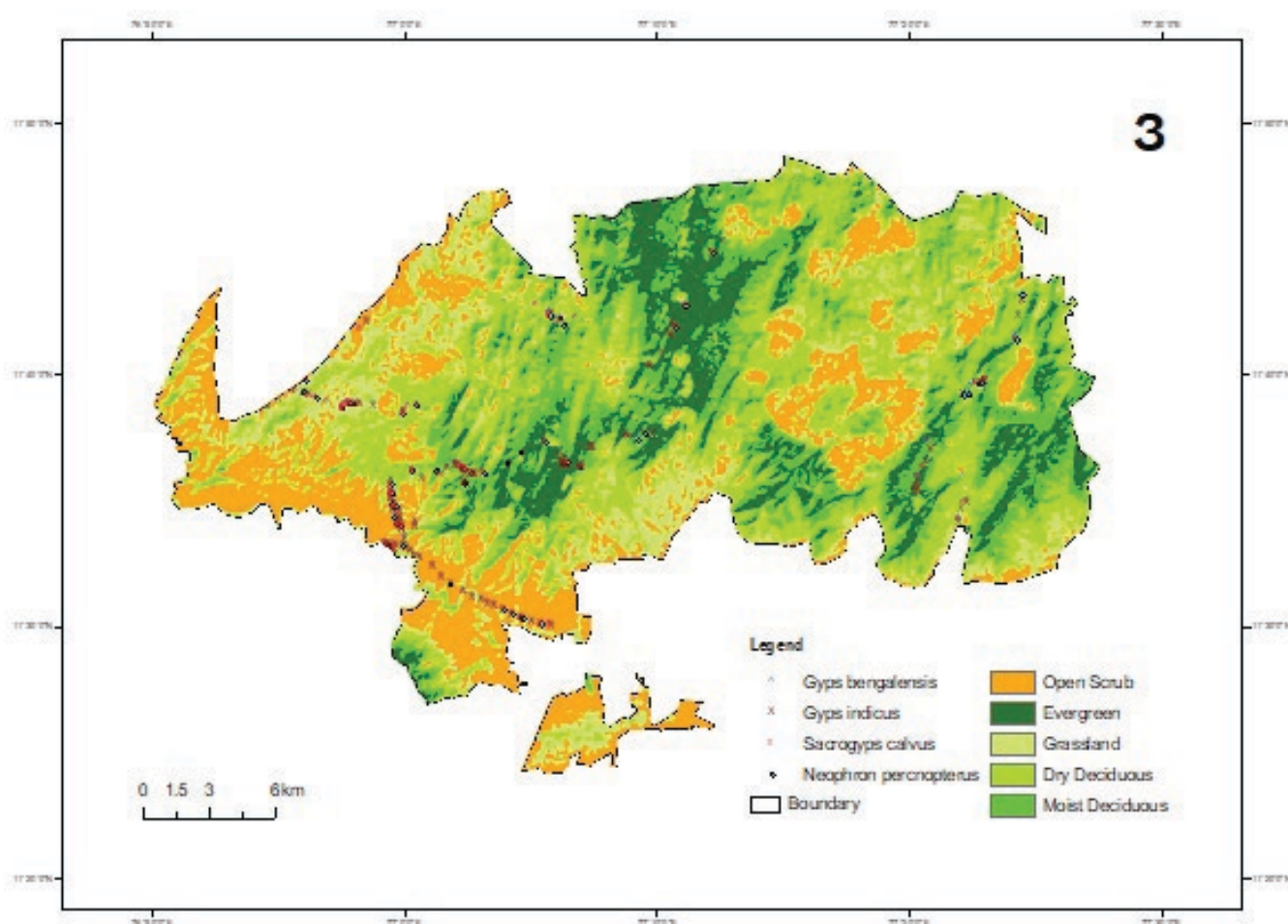
STUDY AREA

The study area of the present investigation was Sathyamangalam 10°29'15" to 11°43'11" N latitude and 76°50'46" to 77°27'22" E longitude covers 1408.405 km² and located in the Northern Part of Erode District. Sathyamangalam Tiger Reserve is mostly an undulating terrain with deep Moyar valley and located at the confluence of Eastern and Western Ghats of the state of Tamil nadu. Throughout the year, the average temperature ranges from 6°C to 45°C, whereas in May and June it can reach up to 49°C. The perennial Moyar River and Kukkalthorai halla drains entire area, which receive rainfall mostly from the north-eastern monsoon. The annual rainfall is low (400 mm) and the area falls in the rain shadow of Nilgiris hill slopes on the

southern side. The altitude ranges from 350 to 1000 m above msl. Sathyamangalam Tiger Reserve (STR) with adjoining forest divisions forms a continuous stretch of forests which provides an extensive and varied habitat for wildlife. The study area was selected because of the wide range of climatic conditions which attracted vulture species in and around STR. The study was carried out during January 2015 to December 2016.

MATERIALS AND METHODS

Study was carried out from January 2015 to December 2016 to determine the distribution pattern of four vulture species across the four seasons – North East Monsoon (NEM) September, October and November), South West Monsoon (SWM) (June, July, August), Summer (March, April, May) and Winter (December, January, February). To assess, roads including tarred and metal were used as transects amounting to a total length of 203.5 km. To record the sightings of the vultures, regular monitoring was conducted, which started from 7 A.M in the morning to till 5P.M in the evening. Sightings of vultures were recorded through GPS location points and represented as distribution



Map 1: Map showing the distribution of the four vulture species in coherence with the different types of vegetation in Sathyamangalam Tiger Reserve.

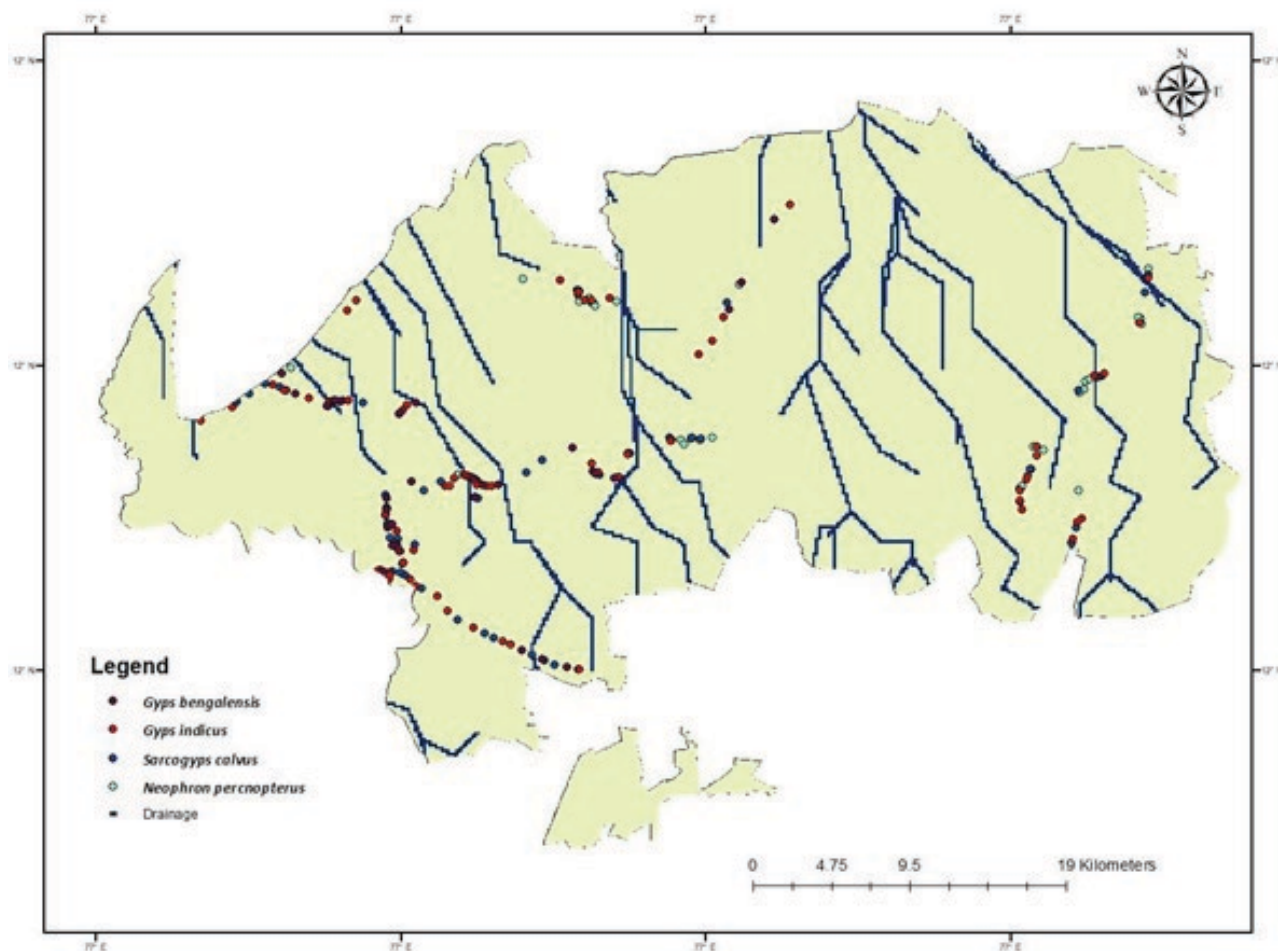
pattern in the map of Sathyamangalam Tiger Reserve using the software ArcGIS.(V 10). The drainage map of Sathyamangalam Tiger Reserve is downloaded from USGS website, the vegetation and the Land surface temperature map from Copernicus website.

RESULTS:

Neophron percnopterus, with the status of being endangered was the least recorded with a total number of 83 sightings in comparison with the other three critically endangered vultures with 1465 for *Gyps bengalensis*, 439 for *Gyps indicus* and 175 for *Sacrogyaps calvus*. Seasonal variations in the number of vultures sighted and encounter rate of four species of vultures varied (Figure 2). The encounter rate of *Gyps bengalensis* 0.4584 (± 0.033) was highest in summer as compared to other seasons. Other three vultures were also recorded with a comparatively higher value in

summer, with an encounter rate of 0.1126 (± 0.014) for *Gyps indicus*, 0.0502 (± 0.004) for *Sacrogyaps calvus* and 0.01806 (± 0.002) for *Neophron percnopterus*. It is significant to note that the distribution pattern of all the four vultures were influenced by the season and the linear relation was observed to follow a similar trend depicted in Figure 1.

The distribution pattern revealed the north-west and south-west part of the reserve dominated by deciduous vegetation was a potential habitat for the scavenger population, harbouring major population of these endangered population in this area as depicted in Map.1. The entire region possesses a network of water drainage system and the proximity of water source clearly influenced the distribution pattern of these vultures is depicted in the Map.2. Distribution of all these four vultures overlaid on the Land surface temperature map was also depicted in Map.3.



Map 2: Map showing the distribution of the four vulture species in coherence with the drainage network in Sathyamangalam Tiger Reserve.

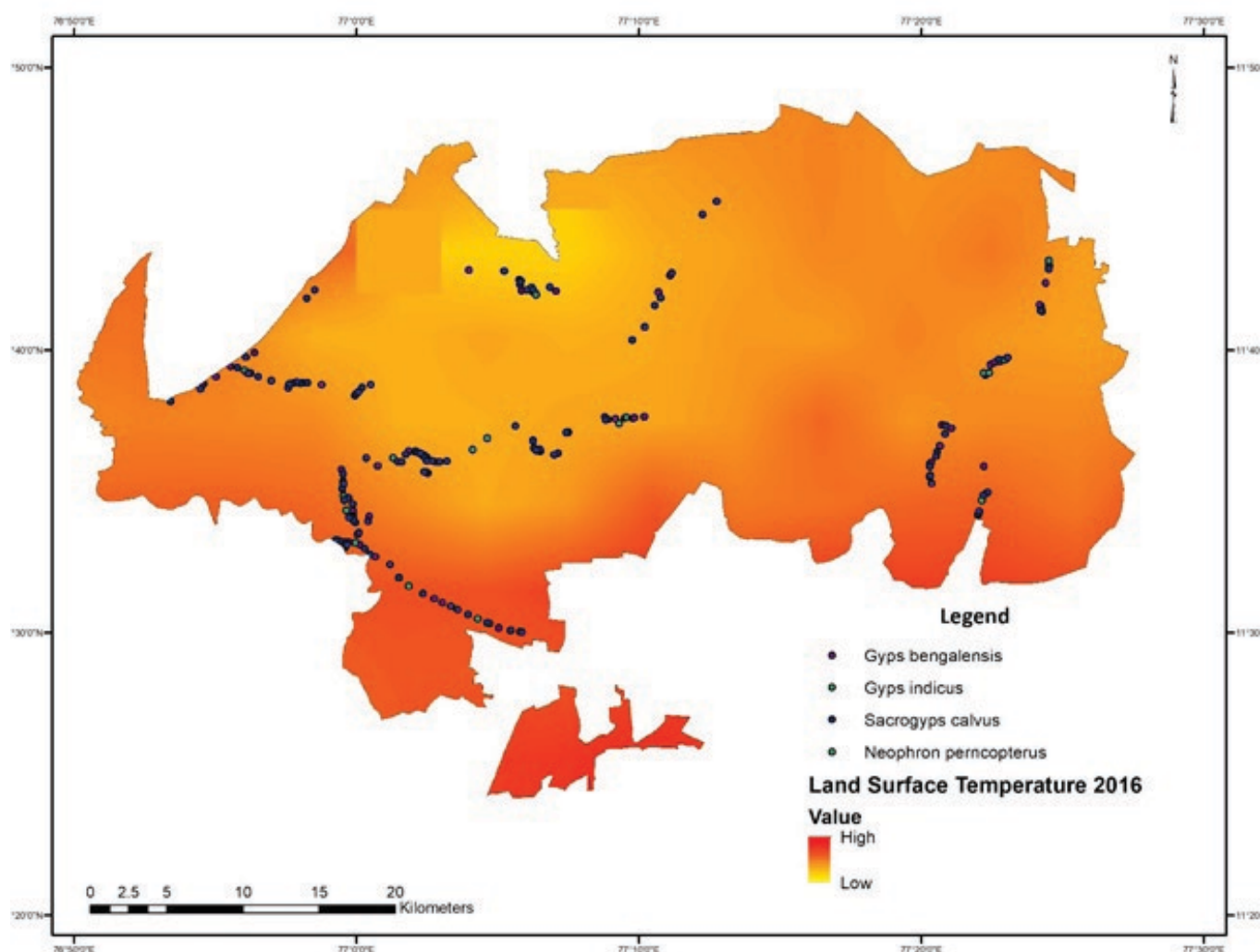
DISCUSSION:

In the Anthropocene era, the risk of extinction of any species greatly depends on the human centred activities and its consequences driven climate change. From various reported evidence from 1999, it is obvious that the human promoted use of diclofenac across the Indian subcontinent had drastically threatened the population of these unique species. Though the total population of the country is decreasing in a long term trend (SoIB, 2020), the information on quantitative assessment on the population in the study area was almost negligible. Nevertheless, in the study area, decreasing population trends were observed due to the lack of nesting habitats in the previously observed areas (Ramakrishnan and Samson, 2019).

As obligate scavengers, prey mortality might play a significant role in their habitat use pattern (Kendall *et al.*, 2014). The livestock availability in the villages

within the boundary of the reserve also enhanced the carcass availability for the vultures. Religious beliefs of people in this landscape are associated with cattle and hence the dead cattle are thrown at the outskirts of the village. But *Gyps* vultures found in the Moyar valley were less dependent on carcass of livestock and their major source of food were carcass of wild animals/ungulates (Ramakrishnan *et al.*, 2010). This fact favours the only isolated population of vultures in this landscape, after the reported 99% decline of *Gyps* species reported in the northern part of India (Prakash, 1999). Hence, it is evident that the survival of these vultures is influenced by environmental factors which in turn shape their habitat use pattern.

The habitat of Sathyamangalam is a forest stretch which extends continuously with the adjoining forest areas. In terms of forest types, the landscape is dominated by 46.5% of dry deciduous forest followed by 22.3% of



Map 3: Map showing the distribution of the four vulture species in coherence with the land surface temperature pattern of Sathyamangalam Tiger Reserve.

moist deciduous forest. The other forest types include evergreen with 11.8%, grassland with 11.45% and open scrub with 7.8% (Map.1). The occurrence of vultures in this landscape also supports their requirement of a relict wooded area, mature trees and range of foraging habitat (Fargallo *et al.* 1998; Donazar *et al.* 2002a; Carrete & Donazar 2005).

In this study, vultures were observed to be predominantly distributed along the deciduous vegetation of the STR landscape. Vulture density was higher in the interface of the protected and unprotected area (Herremans & Herremans-Tonnoeyr 2000) was reported from Botswana. The north western side of the STR exhibits the trend of distribution of these vultures in such interface, which might be explained by the presence of adjoining forest regions such as Nilgiri

North, enabling vultures to access a wide foraging area across administrative boundaries.

The distribution of these vultures in the proximity of deciduous forests was supported by the fact that they roost on lofty and sparsely branched trees, the reason includes the enhanced visibility of the surroundings and minimum energy expenditure for a takeoff (Yamac 2007). These roosting sites provide favourable microclimate enabled by temperature inversion facilitating thermal regulation of vultures (Thompson *et al.*, 1990).

The reason behind the occurrence of these four vultures in the other areas can also be attributed to facilitated thermoregulation. Geographically, land surface temperature varies based on the density of vegetation, presence of water bodies and mountains. As STR is a landscape with all these factors, land surface

temperature varies across the landscape (Map 3). The differential distribution of vultures preferring higher land surface temperature regions might be explained by the proportionality of higher land surface temperature to the thermal uplift, which enables these vultures to soar high with minimum energy expenditure.

Another significant factor is the availability of water in the form of streams and other naturally present water sources in the forest areas of STR as evident in the drainage map (Map.2). The availability of water alters the land surface temperature and lowers the temperature in accordance with the increase in moisture due to evaporation. Hence, the differential land surface temperature across the areas would also be dependent on the availability of water and thus influence thermal uplift of these vultures.

MANAGEMENT RECOMMENDATIONS:

This study also supports that the population of the four vultures in STR was very low, especially the endangered *Neophron percnopterus*. Having the characteristic feature of slow breeders with low growth rates and diclofenac contamination in the other parts of the country, this population of vulture at the junction of Eastern and Western Ghats is the last hope to restore the vulture population. Therefore, there is an urgent need to save the habitat and protect the large trees from all possible threats including forest fire and ensuring safe and sufficient food availability for vultures. Thus, the insights on the correlation between the land surface temperature, water availability and forest type of STR, substantiates the environmental factors as the influential drive for the surviving vulture population and the need to be conserved.

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REFERENCES:

- Ali, S. and Ripley, S.D. (1987) Handbook of the Birds of India and Pakistan. Oxford University Press. New Delhi., Pp.3121.
- Beasley, J.C., Olson, Z.H. and DeVault, T.L. (2015). Ecological role of vertebrate scavengers. In: Benhow, J.H. and Tarone, A. (eds), Carrion Ecology, Evolution and their applications. CRC Press, Boca Raton, FL, 512p.
- BirdLife International (2015). Species factsheet. Downloaded from <http://www.birdlife.org>.
- Bogliani, G., Viterbi, R. and Nicolino, M. (2011). Habitat use by a reintroduced population of bearded vultures (*Gypaetus barbatus*) in the Italian Alps. *Journal of Raptor Research* 45(1):56-62.
- De Vault, T.L., Rhodes, O.E. and Shivik, J.A. (2003). Scavenging by vertebrates: Behavioural, ecological and evolutionary perspectives on an important energy transfer pathway in terrestrial ecosystems. *Oikos* 102 (2):225-234.
- Donazar, J.A., Negro, J.J., Palacios, C.J., Gangoso, L., Godoy, J.A., Ceballos, O., Hiraldo, F. and Capote, N. (2002). Description of a new subspecies of the Egyptian vulture (Accipitridae: *Neophron percnopterus*) from the Canary Islands. *Journal of Raptor Research* 36(1):17-23.
- Fargallo, J.A., Blanco, G., Potti, J. and Vinuela, J. (2001). Nestbox provisioning in a rural population of Eurasian Kestrels: breeding performance, nest predation and parasitism. *Bird Study* 48:236-244.
- Prakash, V. (1999). Status of vultures in Keoladeo National Park, Bharatpur, Rajasthan, with special reference to population crash in *Gyps* species. *Journal of the Bombay Natural History Society* 96(3): 365-378.
- Ruxton, G.D. and Houston, D.C. (2004). Obligate vertebrate scavengers must be large soaring fliers. *Journal of Theoretical Biology* 228(3):431-436
- Herremans, M. and Herremans, D.T. (2000). Land use and conservation status of raptors in Botswana. *Biological conservation* 94(1):31-41.
- Houston, D.C. and Cooper, J.E. (1975). The digestive tract of the whiteback Griffon vulture and its role in disease transmission among wild ungulates. *Journal of Wildlife Diseases* 11(3): 306-313.



- Kendall, C.J. (2014) The early bird gets the carcass: temporal segregation and its effects on foraging success in avian scavengers. *The Auk* **131**, 12– 19.
- Ogada, D.L. and Keesing, F. (2010). Decline of raptors over a three year period in Laikipia, Central Kenya. *Journal of Raptor Research* 44:43-49.
- Ramakrishnan B., Ramasubramanian S., Saravanan M. and Arivazhagan C. (2010). Is Diclofenac the only culprit for declining population of Gyps Vultures in the Moyar Valley. *Current Science* 99 (12): 1645-1646.
- Ramakrishnan, B. and Samson, A. (2019). Monitoring and study of Unique species of the landscape: Vulture, Striped Hyaena and Blackbuck with the help of external volunteers in Sathyamangalam Tiger Reserve. Technical Report. Pp 40.
- SoIB (2020). State of India's Birds, 2020: Range, trends and conservation status. The SoIB Partnership. Pp 50.
- Thompson, W.L., R.H. Yahner & L.S. Gerald (1990). Winter use and habitat characteristics of vulture communal roosts. *The Journal of Wildlife Management* 54(1): 77–83.
- Wilmers, C.C., Crabtree, R.L., Smith, D.W., Murphy, K.M. and Getz, W.M. (2003). Trophic facilitation by introduced top predators: grey wolf subsidies to scavengers in Yellowstone National Park. *Journal of Animal Ecology* 72:909-916.
- Wilmers, C.C., Post, E., Peterson, R.O. and Vucetich, J.A. (2006). Predator disease out-break modulates top-down, bottom-up and climatic effects on herbivore population dynamics. *Ecology Letters* 9:383-389.
- Yamac. E. (2007). Roosting tree selection of Cinereous vulture *Aegypius monachus* in breeding season in Turkey. *Podoces* 2(1):30-36.

Avifaunal diversity of Anjaneri Protected Area, Nashik, Maharashtra

Vinaykamal D. Dethe* and Sagar G. Medhe

Department of Zoology, MVP'S Arts, Science and Commerce College. Ozar (MIG), Nashik.

Corresponding author *vinay_dethe@rediffmail.com

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Abstract

Avifaunal diversity of Anjaneri protected area is studied. We report total 98 species birds from 11 orders and 41 families out of which 20 species are winter migrants and 5 species are endemic to Maharashtra. Breeding sites of critically endangered Indian vultures are observed in the the northern-western Ghats a globally important hotspot of biodiversity and our baseline information will helpful for future conservational and management.

Introduction

The biological diversity and resources are important for the world's economy and human needs and the conservation of sites of rich biodiversity is an important strategy to stop loss of biodiversity (Biodiversity Convention 2000). The Western Ghats of India is well known for its biodiversity and endemic species (Padhey and Ghate 2002; Gunawardene et al. 2007; Daniel and Vencatesn 2008). The diversity of birds is vital for pest control, pollination, seed dispersion, and scavenging (Sekercioglu et al. 2017). The destruction of habitat by humans and their activity is the main cause of loss of avifaunal diversity (Bhadja and Vaghela, 2013). For maintaining the diversity of plants and animals the study and protection of bird species is important (Simeone et al. 2002). For understanding the ecology and conservation of an area, the study of the avian community is important (Kati and Sekercioglu 2006).

The Northern Western Ghats (NWG) comprise different types of habitats like forests, grasslands, rocky cliffs, and plateau (Datar and Watve 2018) and this an important habitat for many endemic, rare and endangered species. (Ghate 2015). In Maharashtra, the NWGs passes through 12 districts and the mountain



Figure.1. Anjaneri hills during summer.

ranges of these areas are less studied (Datar 2019). Nashik district of Maharashtra is part of NWGs and it has around 340 species of birds out of which 27 bird species are threatened. (Raha et al. 2004). The Nandurmahmeshwar wetland, Gangapur dam, Ozar, and Wani adjoining grasslands are Important Bird Areas (IBA's) present in Nashik.

The NWG of Maharashtra includes part of the Trimbakeshwar mountain range situated in Nashik, which shows forest covers, rocky cliffs, and valley (Khairnar 2009). The avian diversity of north Maharashtra has not been well studied (Mahabal et al. 2011). The Tryambakeshwar mountain ranges contain the Anjaneri hills located around 20 km from Nashik city. Anjaneri hills are situated at an altitude of 1280 m above sea level. The 5 hills of Trimbakeshwar mountain range forms the Anjaneri hills (Pethe et al. 2015). The southern part of these hills is covered by dense forest. Anjaneri is the birthplace of Lord Hanuman (Anjaneya, son of Sun God) and this protected area is well known for its floristic diversity. The avian diversity and its distribution in Anjaneri has not received scientific consideration. This is the first effort to document avifaunal diversity of this area. Therefore, this paper aims to provide preliminary information on the avifaunal

diversity of Anjaneri protected area. This study will help implement conservation and management planning for the area.

Materials and Method

Study area and Habitat

The total area of Anjaneri is 923.68 hectares spread between 19° 55' 12" N, 73° 34' 12" E and divided into various habitat types like semi-evergreen forest patches, grasslands, riparian patches, agricultural land, rocky lateritic plateau, and human settlements. The Anjaneri area is divided into three wide-ranging plateaus at an elevation of 800 m, 1100 m, and 1200 m above MSL respectively (Jaybhaye et al. 2016). The climate is divided into three-seasons, summer (March to May), monsoon (June-October), and winter (November to February). The temperature of Anjaneri ranges between 10°C to 36°C with an annual average rainfall of 2174mm, the temporary water source originates during monsoon whereas in summer the area is dry. (Figure 1- 3).

Vegetation

The vegetation of the area contains major species of trees like *Ficus racemosa*, *Mangifera indica*, *Lannea coromandelica*, *Kydia calycina*, *Heterophragma*



Figure.2. Anjaneri hills during monsoon.

quadriloculare, *Erythrina stricta*, *Terminalia arjuna*, *Terminalia bellirica*, *Mallotus philippensis*, *Careya arborea*, *Lagerstroemia microcarpa*, *Pterocarpus marsupium*, *Olea dioica*. Shrubs like *Barleria lawii*, *Dicliptera leonotis*, *Strobilanthes reticulate*, *Rauvolfia serpentine*, *Woodfordia fruticosa*, *Securinega leucopyrus* and Grasses like *Apluda mutica*, *Chloris virgata*, *Dendrocalamus strictus*, *Coix gigantea*.

Method

The field survey was conducted once in a week of every month from June 2016 to June 2017, from morning 0600hrs till evening. The identification of bird species was done using standard field guides and books (Ali and Ripley 1987; Grimmett et al. 1999; Pande et al. 2011). The status of the birds is given as per IUCN Red List of Threatened Species (Birdlife International 2017) and classification is given as per Praveen et al. (2020). Percent occurrence of families was calculated by the method of Basavarajappa (2006). The endemic species were recorded according to Jathar and Rahmani (2006).

Result and Discussion:

The study showed a high diversity of birds including critically endangered vultures. Distribution of species

with genus, families, orders, Resident and ICUN status recorded at Anjaneri reserved forest is presented in Table 1. This area represents 17.62% avian diversity of Maharashtra (Mahabal et al. 2011)

A total 98 species of birds belonging to 11 orders, 41 families were recorded during the study. Order Passeriformes showed a total 65 species followed by order Accipitriformes with 8 species. The percent occurrence of species in respective orders is given (Table 2). Muscicapidae family showed 10 species, which is the largest number of species from a single-family which includes flycatchers, thrushes and robins. Birds are associated with high vegetation diversity because they provide food and shelter (Koli 2014). Presence of fruit and flower-bearing flora of the area attracts avifauna. The agricultural area is a good food source for birds (Dhindsa and Saini, 1994). Rice is the main crop of this area, and rice field are temporary habitat for many birds like pigeon, myna, sparrow, house crow, cattle egret, heron, and parakeet because these field provide food source before and after harvesting. The most diverse avifauna was observed at an elevation of 800-1100 m probably because of less human disturbance and presence of diverse flora. The distribution of birds mainly depends upon availability of suitable habits for



Figure.3. Anjaneri hills during winter.

breeding, roosting and nesting. (Sharma et al.2018).

The survey showed 20 bird species, which are winter migrants, seven species, are local migrants and two species were vagrants. *Psilopogon viridis* (Boddaert, 1783) *Rhipidura albogularis* (Lesson, 1832) *Galerida malbarica* (Scopoli, 1786), *Galerida deva* (Sykes, 1832) and *Myophonus horsfieldii* (Vigors 1831) were observed during the study and these are endemic to Maharashtra.

Anjaneri is home for of critically endangered Indian Long-billed Vulture and White-backed Vultures. Raha et al.2015 had observed the presence of vultures in this region. The cliff of Anjaneri is an excellent habitat for Indian long-billed Vulture and the trees like *Mangifera indica*, *Pterocarpus marsupium* *Terminalia arjuna* provide suitable breeding and nesting sites for White-backed Vultures. This area has a suitable habitat for these threatened vultures. The cattle population in the area is large so monitoring of veterinary drugs from the area is important to know the probable threat to vultures. The programs for awareness

need to be conducted in Anjaneri and nearby villages, to save the vulture species. The avian diversity of Anjaneri hill is rich and further study should be focused on ecology, habitat wise distribution and population dynamics for better management and conservation.

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Author's contribution:

Original Idea, Design of the study, data analysis and Manuscript preparation done by V.D. Dethe. Survey and data collection was done by Sagar. G. Medhe.

Table 1. A Checklist of birds with their Resident and ICUN Status.

Sr. No	Common name	Species name	Res. Status	ICUN Status
		Order: Galliformes : Family: Phasianidae		
1.	Indian Peafowl	<i>Pavo cristatus</i> (Linnaeus, 1758)	R	LC
2.	Painted Francolin	<i>Francolinus pictus</i> (Jardine & Selby, 1828)	R	LC
		Order: Columbiformes:Family:Columbidae		
3.	Rock Pigeon	<i>Columba livia</i> (J.F.Glemin,1789)	R	LC
4.	Spotted Dove	<i>Streptopelia chinensis</i> (Scopoli, 1786)	R	LC
5.	Laughing Dove	<i>Streptopelia senegalensis</i> (Linnaeus, 1766)	R	LC
6.	Yellow-footed Green-Pigeon	<i>Treron phoenicopterus</i> (Latham, 1790)	R	LC
		Order: Cuculiformes : Family: Cuculidae		
7.	Greater Coucal	<i>Centropus sinensis</i> (Stephens,1815)	R	LC
8.	Asian Koel	<i>Eudynamys scolopaceus</i> (Linnaeus, 1758)	R	LC
9.	Common Cuckoo	<i>Cuculus canorus</i> (Linnaeus, 1758)	R	LC
		Order: Caprimulgiformes : Family: Apodidae		
10.	Little Swift	<i>Apus affinis</i> (J.E.Gray,1830)	R	LC
11.	Asian Palm-Swift	<i>Cypsiurus balasiensis</i> (J.E.Gray,1829)	R	LC
		Order: Pelecaniformes : Family: Ardeidae		
12.	Indian pond heron	<i>Ardeola grayii</i> (Sykes, 1832)	LM	LC
13.	Little Egret	<i>Egretta garzetta</i> (Linnaeus, 1766)	LM	LC
14.	Cattle Egret	<i>Bubulcus ibis</i> (Linnaeus, 1758)	LM	LC
		Family: Threskiornithidae		
15.	Indian Black Ibis	<i>Pseudibis papillosa</i> (Temminck, 1824)	LM	LC
		Order: Accipitriformes: Family: Accipitridae		
16.	Black Kite	<i>Milvus migrans</i> (Boddaert, 1783)	LM	LC
17.	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i> (Temminck, 1821)	LM	LC
18.	Indian long billed Vulture	<i>Gyps indicus</i> (Scopoli, 1786)	R	Cr
19.	White -backed Vultures	<i>Gyps bengalensis</i> (J.F.Glemin,1788)	R	Cr
20.	Short-toed Eagle	<i>Circaetus gallicus</i> (J.F.Glemin,1788)	R	LC
21.	Montagu's Harrier	<i>Circus pygargus</i> (Linnaeus, 1758)	WM	LC
22.	Shikra	<i>Accipiter badius</i> (J.F.Glemin,1788)	R	LC
23.	Eurasian Sparrow hawk	<i>Accipiter nisus</i> (Linnaeus, 1758)	WM	LC
		Order: Coraciformes: Family: Alcedinidae		
24.	Common Kingfisher	<i>Alcedo atthis</i> (Linnaeus, 1758)	R	LC
25.	White-throated Kingfisher	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	R	LC
		Family: Meropidae		
26.	Green Bee-eater	<i>Merops orientalis</i> (Latham, 1801)	R	LC
		Family: Coraciidae		
27.	Indian Roller	<i>Coracias benghalensis</i> (Linnaeus, 1758)	LM	LC
28.	European Roller	<i>Coracias garrulus</i> (Linnaeus, 1758)	WM	LC

		Order: Piciformes : Family: Rhamphastidae		
29.	Coppersmith Barbet	<i>Psilopogon haemacephalus</i> (Statius Muller, 1776)	R	LC
30.	White-cheeked Barbet	<i>Psilopogon viridis</i> (Boddaert, 1783)	R*	LC
		Order: Falconiformes: Family: Falconidae		
31.	Common Kestrel	<i>Falco tinnunculus</i> (Linnaeus, 1758)	R	LC
32.	Peregrine Falcon	<i>Falco peregrinus</i> (Tunstall, 1771)	WM	LC
		Order: Psittaciformes Family: Psittaculidae		
33.	Rose-ringed Parakeet	<i>Psittacula krameri</i> (Scopoli, 1769)	R	LC
		Order: Passeriformes Family: Campephagidae		
34.	Small Minivet	<i>Pericrocotus cinnamomeus</i> (Linnaeus, 1758)	R	LC
35.	Orange Minivet	<i>Pericrocotus flammeus</i> (J.R.Forster, 1781)	R	LC
		Family: Vengidae		
36.	Common Woodshrike	<i>Tephrodornis pondicerianus</i> (G.F.Glemin, 1789)	R	LC
		Family: Aegithinidae		
37.	Common Iora	<i>Aegithina tiphia</i> (Linnaeus, 1758)	R	LC
		Family: Rhipiduridae		
38.	White spotted Fantail	<i>Rhipidura albogularis</i> (Lesson, 1832)	R*	LC
		Family: Dicruridae		
39.	Black Drongo	<i>Dicrurus macrocercus</i> (Vieillot, 1817)	R	LC
40.	Ashy Drongo	<i>Dicrurus leucophaeus</i> (Vieillot, 1817)	R	LC
		Family: Monarchidae		
41.	Indian Paradise-Flycatcher	<i>Terpsiphone paradisi</i> (Linnaeus, 1758)	V	LC
		Family: Laniidae		
42.	Bay-backed Shrike	<i>Lanius vittatus</i> (Valenciennes, 1826)	R	LC
43.	Long-tailed Shrike	<i>Lanius schach</i> (Linnaeus, 1758)	R	LC
		Family: Corvidae		
44.	House Crow	<i>Corvus splendens</i> (Vieillot, 1817)	R	LC
45.	Large-billed Crow	<i>Corvus macrorhynchos</i> (Wagler, 1827)	R	LC
		Family: Stenostiridae		
46.	Grey-headed Canary-Flycatcher	<i>Culicicapa ceylonensis</i> (Swainson, 1820)	R	LC
		Family: Alaudidae		
47.	Malabar Lark	<i>Galerida malabarica</i> (Scopoli, 1786)	R*	LC
48.	Tawny Lark	<i>Galerida deva</i> (Sykes, 1832)	R*	LC
		Family: Cisticolidae		
49.	Common Tailorbird	<i>Orthotomus sutorius</i> (Pennant, 1769)	R	LC
50.	Grey-breasted Prinia	<i>Prinia hodgsonii</i> (Blyth, 1844)	R	LC
51.	Ashy Prinia	<i>Prinia socialis</i> (Sykes, 1832)	R	LC
52.	Plain Prinia	<i>Prinia inornata</i> (Sykes, 1832)	R	LC
		Family: Acrocephalidae		
53.	Booted Warbler	<i>Iduna caligata</i> (M.H.C Lichtenstein, 1823)	WM	LC
54.	Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i> (Blyth, 1849)	WM	LC

		Family: Hirundinidae		
55.	Dusky Crag Martin	<i>Ptyonoprogne concolor</i> (Sykes, 1832)	R	LC
56.	Barn Swallow	<i>Hirundo rustica</i> (Linnaeus, 1758)	R	LC
57.	Wire-tailed Swallow	<i>Hirundo smithii</i> (Leach, 1818)	R	LC
58.	Red-rumped Swallow	<i>Cecropis daurica</i> (Laxman, 1769)	R	LC
		Family: Pycnonotidae		
59.	Red-vented Bulbul	<i>Pycnonotus cafer</i> (Linnaeus, 1766)	R	LC
60.	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i> (Linnaeus, 1758)	R	LC
		Family: Phylloscopidae		
61.	Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i> (Blyth, 1847)	WM	LC
62.	Common Chiffchaff	<i>Phylloscopus collybita</i> (Vieillot, 1817)	WM	LC
		Family: Sylviidae		
63.	Lesser Whitethroat	<i>Sylvia curruca</i> (Linnaeus, 1758)	WM	LC
64.	Yellow-eyed Babbler	<i>Chrysomma sinense</i> (J.F.Glemin, 1789)	R	LC
		Family: Leiothrichidae		
65.	Quaker tit Babbler	<i>Alcippe poiocephala</i> (Jerdon 1841)	R	LC
66.	Jungle Babbler	<i>Turdoides striata</i> (Dumont 1823)	R	LC
		Family: Sturnidae		
67.	Brahminy Starling	<i>Sturnia pagodarum</i> (J.F.Glemin, 1789)	R	LC
68.	Common Myna	<i>Acridotheres tristis</i> (Linnaeus 1758)	R	LC
69.	Bank Myna	<i>Acridotheres ginginianus</i> (Latham, 1790)	R	LC
70.	Jungle Myna	<i>Acridotheres fuscus</i> (Wagler, 1827)	R	LC
		Family: Turdidae		
71.	Indian Blackbird	<i>Turdus simillimus</i> (Jerdon, 1839)		LC
		Family: Muscicapidae		
72.	Indian Robin	<i>Saxicola fulicatus</i> (Linnaeus 1766)	R	LC
73.	Oriental Magpie-Robin	<i>Copsychus saularis</i> (Linnaeus 1758)	R	LC
74.	Tickell's Blue Flycatcher	<i>Cyornis tickelliae</i> (Blyth, 1843)	R	LC
75.	Malabar Whistling-Thrush	<i>Myophonus horsfieldii</i> (Vigors 1831)	R*	LC
76.	Red-breasted Flycatcher	<i>Ficedula parva</i> (Bechstein, 1792)	WM	LC
77.	Black Redstart	<i>Phoenicurus ochruros</i> (S.G.Glemin, 1774)	WM	LC
78.	Blue-capped Rock-Thrush	<i>Monticola cinclorhynchus</i> (Vigors 1831)	WM	LC
79.	Blue Rock Thrush	<i>Monticola solitarius</i> (Linnaeus 1758)	WM	LC
80.	Pied Bushchat	<i>Saxicola caprata</i> (Linnaeus, 1766)	R	LC
81.	Desert Wheatear	<i>Oenanthe deserti</i> (Timminck, 1825)	WM	LC
		Family: Nectariniidae		
82.	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i> (Latham 1790)	R	LC
83.	Purple Sunbird	<i>Cinnyris asiaticus</i> (Linnaeus, 1766)	R	LC
		Family: Estrildidae		
84.	Red Avadavat	<i>Amandava amandava</i> (Linnaeus, 1758)	R	LC
85.	Indian Silverbill	<i>Euodice malabarica</i> (Linnaeus, 1758)	R	LC
86.	Scaly-breasted Munia	<i>Lonchura punctulata</i> (Linnaeus, 1758)	R	LC

		Family: Motacillidae		
87.	Grey Wagtail	<i>Motacilla cinerea</i> (Tunstall, 1771)	WM	LC
88.	Yellow Wagtail	<i>Motacilla flava</i> (Linnaeus, 1758)	WM	LC
89.	Paddyfield Pipit	<i>Anthus rufulus</i> (Vieillot, 1818)	R	LC
90.	Long-billed Pipit	<i>Anthus simillis</i> (Jerdon 1840)	WM	LC
91.	Tawny Pipit	<i>Anthus capestris</i> (Vieillot, 1818)	WM	LC
92.	Tree Pipit	<i>Anthus trivialis</i> (Linnaeus, 1758)	WM	LC
93.	Olived backed Pipit	<i>Anthus hodgsoni</i> (Richmond, 1907)	WM	LC
		Family: Diacaedae		
94.	Thick-billed Flowerpecker	<i>Dicaeum agile</i> (Tickell, 1833)	R	LC
		Family :Irenidae		
95.	Golden-fronted Leafbird	<i>Chloropsis aurifrons</i> (Temminck, 1829)	R	LC
		Family: Ploceidae		
96.	Baya Weaver	<i>Ploceus philippinus</i> (Linnaeus, 1766)	R	LC
		Family: Passeridae		
97.	House Sparrow	<i>Passer domesticus</i> (Linnaeus, 1758)	R	LC
		Family: Emberizidae		
98.	Crested Bunting	<i>Melophus lathamii</i> (J.E.Gray, 1831)	V	LC

Abbreviation used: Resident Status: R – Resident; LM - Local Migrant; WM - Winter Migrant and V - Vagrant. R*-Endemic to Maharashtra. ICUN Status: LC- Least concern; Cr- Critically Endangered.

Table 2. Percent occurrence of species in respective orders.

Sr. No	Orders	Family	Species	Percent Occurrence
1.	Galliformes	1	2	2.0
2.	Columbiformes	1	4	4.1
3.	Cuculiformes	1	3	3.1
4.	Caprimulgiformes	1	2	2.0
5.	Pelecaniformes	2	4	4.1
6.	Accipitriformes	1	8	8.1
7.	Coraciiformes	3	5	5.1
8.	Piciformes	1	2	2.1
9.	Falconiformes	1	2	2.1
10.	Pssitaciformes	1	1	1.0
11.	Passeriformes	28	65	66.3
Total	11	41	98	100

Reference:

- Ali, S. and S.D. Ripley. 1987. *Compact Handbook of the Birds of India and Pakistan*. 2nd Edition Oxford University Press.
- Basavarajappa, S. (2006). Avifauna of agro-ecosystems of Maidan area of Karnataka. *Zoos' Print Journal*, 21(4), 2217-2219.
- Bhadja, P., & Vaghela, A. (2013). Study on avifaunal diversity from two freshwater reservoirs of Rajkot, Gujarat, India. *Intl J res Zool*, 3(2), 16-20.
- Biodiversity convention (2000) <http://www.unep.ch/conventions>.

- BirdLife International. 2017. *The IUCN Red List of Threatened Species* 2017: <https://www.iucnredlist.org>
- Daniel, R.J.R. and J. Vencatesan. 2008. *Western Ghats: Biodiversity, People, Conservation*. New Delhi: Rupa and company. 148 pp
- Datar, M. N., & Tetali, P. (2019). Hill Forts: Abodes of Endemic Plants and Potential Priority Conservation Areas of Northern Western Ghats. *National Academy Science Letters*, 42(4), 375-378.
- Datar, M.N. and Watve, A.V. (2018). Vascular plant assemblage of cliffs in northern Western Ghats, India. *Journal of Threatened Taxa*, 10(2), pp.11271-11284. <https://doi.org/10.11609/jott.3611.10.2.11271-11284>
- Dhindsa, M. S., & Saini, H. K. (1994). *Agricultural ornithology: an Indian perspective*. *Journal of Biosciences*, 19(4), 391-402. doi:10.1007/bf02703176
- Ghate, Ketaki. (2015). Management of Forests in the Northern Western Ghats. *Journal of Ecological Society*, Pune. 26-27. 30-42.
- Global IUCN Red list Category IUCN STATUS: Bird life International 2018-19.
- Grimmett, R., C. Inskipp & T. Inskipp (1999). *Pocket Guide to the Birds of Indian Subcontinent*. Oxford University Press, New Delhi, 384pp
- Gunawardene, N. R., Daniels, D. A., Gunatilleke, I. A. U. N., Gunatilleke, C. V. S., Karunakaran, P. V., Nayak, G. K. & Vasanthy, G. (2007). A brief overview of the Western Ghats-Sri Lanka biodiversity hotspot. *Current science*, 93(11), 1567-1572.
- Jathar, G. A., & Rahmani, A. R. (2006). Endemic birds of India. *Buceros*, 11(2), 1-53.
- Jaybhaye, G. R., Kale, K. P., & Joshi, P. (2016). The Relevance of Geospatial Techniques in the Assessment of Forest Fragmentation of Anjaneri Hill, Nasik District, Maharashtra, India. *J Environ Sci Toxicol Food Technol*, 10(4).
- Kati, V. I., & Sekercioglu, C. H. (2006). Diversity, ecological structure, and conservation of the landbird community of Dadia reserve, Greece. *Diversity and distributions*, 12(5), 620-629.
- Khairnar, D. N. (2009). Biodiversity in Wild Fauna of North Sahyadri in Nashik District, Maharashtra. *Nature Environment and Pollution Technology*, 8(4), 769-772.
- Koli, V. K. (2014). Diversity and status of avifauna in Todgarh-Raoli Wildlife Sanctuary, Rajasthan, India. *Journal of Asia-Pacific Biodiversity*, 7(4), 401-407.
- Mahabal, A., Pande, S., Pandit, P., and Ponkshe, A. Zool. Surv. India Fauna of Maharashtra, State Fauna Series, 20 (Part 1): 147-188, 2011.
- Padhey, A.D. and H.V. Ghate. 2002. An overview of amphibian fauna of Maharashtra state. *Zoo's Print Journal* 17(3): 735-740.
- Pande, Satish, Pramod Deshpande and Niranjan Sant (2011) *Birds of Maharashtra*. Ela Foundation, Pune, India, 330p
- Pethe, J., A. Tillu and A. Watve (2015). Threat status assessment of Ceropogia Anjanerica Malpure et al. (Magnoliopsida: Gentianales: Apocynaceae) from Anjaneri Hills, Nashik District, Maharashtra, India. *Journal of Threatened Taxa* 7(3): 6965-6971; <https://doi.org/10.11609/JoTT.o3772.6965-71>
- Praveen, J., R. Jayapal, A. Pittie, Vinod Shankar, P. Gokhale, and K. Kunte. (2020). *Classification Of Indian Birds*. In Satose, V., V. Ramachandran, P. Roy, and K. Kunte (Chief Editors). *Birds of India*, v. 2.14. Indian Foundation for Butterflies.
- Raha, B., Bhure, N., and Ugaonkar, D. (2004). Birds of Nashik. *Nature Conservation Society of Nashik*, 1-24.
- Raha, B., Bhure, N. B., Patil, A., Kothule, P., and Pawar, P. (2015). Monitoring of Vultures in Nasik Circle, Maharashtra during 2014-15. *Ela Journal of Forestry and Wildlife* 4(3):60-67.
- Sekercioglu CH. (2017). How much is a bird worth? *Living Bird* 36(3): 18-20
- Sharma, N., S.K. Rana, P. Raina, R. Amir & M.A. Kichloo (2018). An annotated checklist of the birds of upper Chenab catchment, Jammu & Kashmir, India. *Journal of Threatened Taxa* 10(7): 11869-11894; <http://doi.org/10.11609/jott.3464.10.7.11869-11894>
- Simeone, A., Araya, B., Bernal, M., Diebold, E. N., Grzybowski, K., Michaels, M., & Willis, M. J. (2002). Oceanographic and climatic factors influencing breeding and colony attendance patterns of Humboldt penguins *Spheniscus humboldti* in central Chile. *Marine Ecology Progress Series*, 227, 43-50.

Status of the Lammergeier (*Gypaetus barbatus*) in Hirpora Wildlife Sanctuary, South Kashmir

¹Hameem Mushtaq Wani*, ¹Mustahson F. Fazili, and ²Samina A. Charoo

¹Department of Zoology, University of Kashmir, Srinagar-190006, India

²Department of Wildlife protection, Government of J&K, Srinagar-190006, India

Corresponding author's email: hameem.scholar@kashmiruniversity.net

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ABSTRACT

The Lammergeier (*Gypaetus barbatus*) has been uplisted to Near Threatened category of IUCN red list of threatened species due to its declining population. The change in population dynamics of such scavenging birds can lead to an ecological imbalance and increase the chance of disease spread among wildlife and livestock. Keeping in view the absence of baseline data regarding Lammergeier from Kashmir Himalaya, we examined the current status in Hirpora WLS by using Line Transect method to get a population estimate of the vultures in the area. A total of 47 individuals, 39 adults and 8 sub-adults, were observed during four seasons in Hirpora WLS. Kruskal-Wallis ANOVA was used to test the null hypothesis of randomness. The results showed that there is a significant variation ($P < 0.05$) in both population status and Encounter rate of Lammergeier in different seasons. Flock size also varied significantly ($P < 0.05$) across different months. These variations could be attributed to

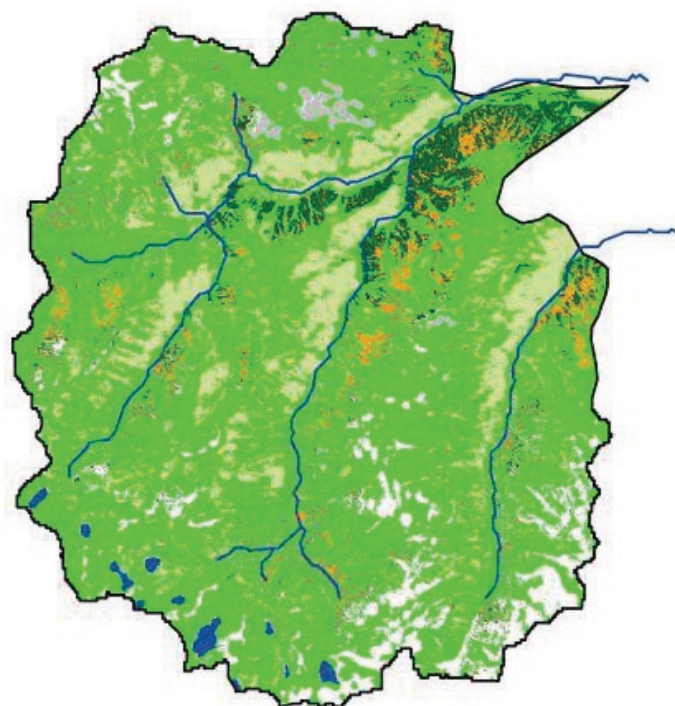
changes in the availability of day light hours and food in different seasons in Hirpora WLS. We recommend a long term study and conservation programme be undertaken for Lammergeier in the area.

Key words: *Flock size, Encounter rate, Lammergeier, Hirpora, Population, Kashmir*

INTRODUCTION

A species in an ecosystem exists as a population of individuals of the same species that are found in the same geographic or temporal environs (Kumar and Mina 2019). For proper management and conservation of wildlife, the estimation of populations is of the utmost importance. When we know the number of a particular species, then the effectiveness of our conservation strategies for that species can be tested. Therefore, it is a key element in identifying priority areas that need to be conserved. Vultures, an ecologically important scavenging group of birds, are regarded as the key functional species in cleaning the environment by feeding on carcasses (Hussain 2015). They are obligatory scavengers. This helps reduce epidemics and recycles nutrients in the environment. Therefore, the absence or loss of vultures from our ecosystems will result in an increased number of other scavenging agents like feral dogs. This change in population dynamics of scavenging faunal elements will increase the probability of disease spread among wildlife and livestock (Prakash et al. 2003). In a nutshell, their decline or local extinction may directly or indirectly affect the functioning of ecosystems as well as the health of wildlife and associated human populations.

Different vulture species show local seasonal fluctuations, and their number and activity may vary throughout the day or within a season (Newton 1979). The movement of vultures depends on environmental conditions and it is directly related to find food and frequency of thermals and ambient temperatures. The conservation of threatened vulture species requires reliable and robust



assessments of long-term demography so as to visualise proper management. The aim of the present study was to investigate the seasonal variation in population status and encounter rate of Lammergeier in Hirpora WLS because of the paucity of published literature. The surveys of the study area were undertaken from May (2018)-April (2020) to determine the population of Lammergeier.

MATERIALS AND METHODS:

Study area

Hirpora WLS spreads over an area of 341 km² in Shopian District, Kashmir. At an altitude of 2546 m from sea level, the sanctuary is located between 33°39' 55" N latitude and 74°39' 40" E longitude. It has forests, pastures, scrub land, waste land and water bodies. To the north, the sanctuary is bound by Lake Gumsar, to the east by Rupri, to the south by Saransar, to the west by the Pir Panjal pass and to northeast by Hirpora village (Ahmad et al. 2015). The slopes are gentle to moderately steep on the eastern aspect and very steep with many cliffs on the upper northern and western portion. The southern and south-eastern portions are moderately steep. The area is renowned for its rich floral and faunal diversity. The main faunal elements of the sanctuary include- Pir Panjal Markhor (*Capra falconeri*), Himalayan musk deer (*Moschus leucogaster*),

Himalayan black bear (*Ursus thibetanus*), Himalayan brown bear (*Ursus arctos*), Leopard (*Panthera pardus*), Red fox (*Vulpes vulpes*) and Tibetan wolf (*Canis lupus*). The vegetation of the sanctuary is divided into mixed coniferous forests, deciduous subalpine scrub forests and subalpine pastures. The coniferous forests are dominated by Kail Pine, the sub alpine forests are dominated by fir while the deciduous subalpine scrub forests are dominated by Himalayan birch (*Betula utilis*) and juniper (*Juniperus communis*) (Ahmad et al. 2011).

METHODS

Data collection

Vultures were enumerated by walking over trails in Hirpora wildlife sanctuary. The entire study period was divided into spring (March, April and May), summer (June, July and August), autumn (September, October and November) and winter (December, January and February) seasons. The study area was visited monthly. Vultures were identified by using a field guide (Grimmett and Inskipp 2016). When encountered, their number, activity and the major habitat type in the surrounding area were noted. The geographical coordinates were also recorded with a GPS handset (Samson et al. 2016).

Season	Population (No. of individuals)		Encounter rate (/km)		Group size	
	Total no. of individuals	Mean±SE	Mean	SE	Max.	Min.
Winter	07	2.33±0.33	0.24	0.09	2	1
Spring	12	4.00±0.00	0.38	0.13	2	1
Summer	15	5.00±0.00	0.51	0.14	2	1
Autumn	13	4.33±0.33	0.46	0.14	2	1
Total	47	3.91±0.31	0.40	0.10	-	
Kruskall-Wallis ANOVA	H=8.65; df=3; p=0.034		H=8.51; df=3; p=0.037		-	

Table 1. Mean population and encounter rate and group size of Lammergeier during different seasons in Hirpora WLS.

STATISTICAL ANALYSIS

Basic statistics such as, mean and standard deviation were calculated for all the variables and are given as $X \pm SE$. Statistical analysis were performed by using windows based statistical packages- Microsoft Excel and MINITAB (Ryan et al. 1992). A non-parametric test, Kruskal-Wallis ANOVA was used for testing the null hypothesis at $P < 0.05$.

Results

We observed 47 Lammergeier during the study period; and which comprised of 83% adults ($n=39$) and 17% sub-adults ($n=8$). Among them 7, 12, 15 and 13 individuals were observed during winter, spring, summer and autumn seasons, respectively. The mean population of Lammergeier was highest for summer, followed by autumn, spring and winter. We found a significant variation ($P < 0.05$, Kruskal-Wallis ANOVA) in seasonal populations of Lammergeier in Hirpora WLS. The maximum and minimum group size was 2 and 1 respectively (Table 2). Mean encounter rate (/km) was highest during summer (0.51 ± 0.14) and lowest during winter (0.24 ± 0.09) (Table 1). The average flock size of Lammergeier was highest in March (2.00 ± 0.00) and lowest in December (1.00 ± 0.00) and January (1.00 ± 0.00).

DISCUSSION

The Lammergeier has been uplisted to Near Threatened category of IUCN because of declines throughout most of its fragmented range (Paudel et al. 2016). Yet most studies on vultures in South Asia are focussed on white-rumped (*Gyps bengalensis*) and Slender billed vultures (*Gyps tenuirostris*) at lower altitudes (Prakash et al. 2003; Oaks et al. 2004; Baral et al. 2007) and very few studies are

found regarding mountain cliff-breeding Lammergeier. This study presents the first base line data for a long term study of the ecology of this scavenger. The mean population size of Lammergeier varied significantly according to seasons in the study area. Population size of Lammergeier was found to be highest during summer season compared to rest of the three seasons (Table 1). In summer, the high availability of day light hours, and almost continuous formation of thermal updrafts helps breeding as well as non-breeding vultures to disperse and forage (Venkitachalam & Senthilnathan 2016). The vultures start breeding from winter onwards, and variations on the counts could simply reflect less movement by incubating vultures. These findings are similar to studies in Nilgiri North forest division and Sathyamanalam Tiger reserve of Moyar valley, Tamil Nadu showing that there is a seasonal variation in population size of different vulture species in the area (Venkitachalam and Senthilnathan 2016).

The average flock size of Lammergeier was highest for the month of March (2.00 ± 0.00) and lowest for the month of December (1.00 ± 0.00). However, Bhusal (2011) recorded the average flock size of Lammergeier to be 5 ± 3.81 . Tryjanowski and Morelli (2018) while studying the effects of habitat and time of the day on flock size of vultures in Cuba found that flock size varied between habitats, reaching a maximum of 43 in valleys and 31 in agricultural landscapes with domestic animal farms suggesting that carrion resources located in agricultural habitats and river valleys is crucial for the continued survival of vultures.

Prakash et al. (2003) surveyed northern, eastern and western India, and calculated the encounter rates of 0.14 and 0.08 individuals per kilometre for white backed and long-billed vultures respectively. Similarly, Umaphathy et

al. (2009) studied the status and distribution of vultures in Andhra Pradesh, India and found encounter rates still less (0.003 per kilometre for Long-billed vulture and 0.0002 per kilometre for White-backed vulture). However, than these estimates as 78.16% of the area is composed of rocky habitat (Rather et al. 2016) that provides suitable locations for breeding purpose of these cliff breeders.

During current study, the population and encounter rate of Lammergeier was maximum during summer and minimum during winter months. This is probably due to the availability of food as during summer months thousands of livestock remain present in the sanctuary. Therefore, vultures usually soar more frequently in search of livestock carcasses during these months. However, during winter month the area receives heavy snowfall and is deserted by nomads during late autumn.

CONCLUSION

The current population size of Lammergeier in Hirpora WLS is very small. Keeping in view its declining populations globally, necessary, long term measures need to be taken to save the species in its natural habitat. Moreover, studies on its conservation issues and diet overlap with other vulture species in Hirpora WLS needs to be undertaken to conserve the species from deterioration.

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REFERENCES

- Ahmad F, Hassan Z, Farooq S, Shah JA (2015). Assessment of Land Use/ Land Cover Change in Hirpora Wildlife Sanctuary, Kashmir. *Asian J Earth Sci.* 8: 6473.
- Ahmad, R., Haq. S., Querishi. S., Puri. M. and Kaul. R. (2011). The lost Markhor of Pirpinjal; Assessing the distribution of markhor (*Capra falconeri*) and other important fauna along with southern slopes of Pirpanjal with special reference to resource competition with local grazer communities, in Hirpora WLS, Jammu and Kashmir. Wildlife Trust of India, Delhi.
- Baral, N., R. Gautam, N. Timilsina & M.G. Bhat (2007). Conservation implications of contingent valuation of Critically Endangered Whiterumped Vulture Gyps bengalensis in South Asia *International Journal of Biodiversity Science and Management* 3(3): 145–156; <http://dx.doi.org/10.1080/17451590709618169>
- Bhusal, K.P. (2011). Population status and breeding success of Himalayan Griffon, Egyptian Vulture and Lammergeier in Gherabhir, Arghakhanchi, Nepal. MSc Thesis. Submitted to Central Department of Zoology, Tribhuvan University, Kathmandu, Nepal.
- Grimmett, R., Inskipp, C., Inskipp, T. (2016). *Birds of Indian Subcontinent* Bloomsbury publishing India, 528 pp.
- Hussain S. A study on vulture decline in Assam, India. *Environmentalism* 1: 8-14, (2015).
- Kumar, P. and Mina, U. (2019). *Fundamentals of Ecology and Environment*. Pathfinder publications, New Delhi, India, 260pp.
- Newton, I. (1979). *Population Ecology of Raptors*. Buteo Books, Poyser Ltd, England, 399pp.
- Oaks, J.L., M. Gilbert, M.Z. Virani, R.T. Watson, C.U. Meteyer, B.A. Rideout, H.L. Shivaprasad, S. Ahmed, M.J.I. Chaudhry, M. Arshad, S. Mahmood, A. Ali & A.A. Khan (2004). Diclofenac residues as the cause of vulture population declines in Pakistan. *Nature* 427: 630-633.
- Paudel, K., Bhusal, K.P., Acharya, R., Chaudhary, A., Baral, H.S., Chaudhary, I.P., Green, R.E., Cuthbert, R.J., & Galligan, T.J. (2016). Is the population trend of the Bearded Vulture *Gypaetus barbatus* in Upper Mustang, Nepal, shaped by diclofenac? *Forktail* 32 (2016): 54–57.
- Prakash, V.D., J. Pain, A.A. Chunningham, P.F. Donald, N. Prakash, A. Verma, R. Gargi, S.S. Kumar and A.R. Rahmani (2003). Catastrophic collapse of Indian White Backed Gyps bengalensis and Long Billed Gyps indicus Vulture population. *Biological Conservation*, 109: 381-390
- Rather, M. A. (2016). Wildlife Mapping Project and Land Degradation. Department of Wildlife protection, Government of Jammu and Kashmir.
- Ryan, F.B., B.L. Joiner & A.T. Ryan (1992). *MINITAB Handbook*. Boston PWS-KENT Publishing Company, 376pp.
- Samson A., Ramakrishnan B, Veeramani A & Ravi P. (2016). Population status and habitat preference of vultures in Mudumalai Tiger reserve, Tamil Nadu, Southern India. *Podoces* 11(1): 7-12.
- Tryjanowski, P. and Morelli, F. (2018). Effect of habitat and time of day on flock size of Turkey vultures in Cuba (*Cathartes aura*). *Zookeys* 726: 79-86.
- Umapathy, G., Hussain, S., and Shivaji, S. (2009). Status and distribution of vultures in Andhra Pradesh, India, *Forktail* (25): 164-166.
- Venkitachalam, R. & Senthilnathan (2016). Status and population of vultures in Moyar valley, Southern India. *Journal of Threatened Taxa* 8(1): 8358-8364: <http://dx.doi.org/10.11609/jott.2522.8.1.8358-8364>



Indian Fox (*Vulpes bengalensis*) rescued from a well in Walhe, Taluka- Purandar, Pune, Maharashtra, India

Md Zaid Attar, Avishkar Bhujbal, Pandurang Madane, Rahul Lonkar and Satish Pande

(All authors: ETTC, Ela Foundation, Pune)

mdzaidattar8@gmail.com

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Background:

A rescue call was received by the Ela Transit Treatment Centre (ETTC), Ela Habitat, Pingori from a farmer. An Indian Fox (*Vulpes bengalensis* Shaw, 1800) had fallen in a well, on 22 August 2020 at 13.30 hrs. The location was Kamathwadi, Walhe (18.1868 N, 74.1520 E, Altitude 725 m ASL).

Species: *Vulpes bengalensis* (Shaw, 1800); Family: Canidae

Local name: Khokad (Marathi), IUCN status: LC, WPA: Schedule II

Distribution: From the Himalayan foothills throughout India except the North-East & Western Ghats.

Habitat:

Open rocky patches, desert and near human habitation and agricultural fields. Commonly they use complex dens with several openings or the dens under the rock ledges or crevices.





Rescue:

A farmer saw that an animal had fallen in a well around 8.00 AM on 22 Aug 2020. The animal took refuge on a ledge inside the well. Initially, the farmer tried to rescue the fox with the help of a bucket but was not able to do so. Then he informed ETTC about the incident. We immediately reached the spot to carry out the rescue, and forest officials were also informed about the same. We inspected the well which was without railing and the edge was covered by bushes and vegetation. The well was 63 ft. deep and 30 ft. wide, the water level was at 28 feet from the top. We prepared a rescue net with the help of ropes using a volleyball net (Size-length 365cm, width 137cm, and mesh size 14*14 cm) and bamboos. We tried to grab the fox in the net, which was difficult as the animal was scared. But finally, after repeated attempts we succeeded in catching the fox. This could be done when one of our volunteers descended in the well with all safety measures and precautions and the volunteer pushed the individual safely in the net. The fox was safely pulled out of the

well. The moment it came out of the well the individual immediately escaped from the net and ran away.

The major threats to the Indian Fox (*Vulpes bengalensis*) are habitat loss, road traffic accidents, illegal trapping and poaching, disturbance of den sites, falling in wells, snaring in safety nets, or farm compound nets.

Two rare migratory raptors sharing the same perch

Amit Arun Darunkar

(Email: ar.amitdarunkar@gmail.com)

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Two rare migratory raptors sharing the same perch.
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Date of Publication:
30 September 2020

ISSN 2319-4361



- **Name of species-** Eurasian Hobby (*Falco Subbuteo*) and Black Baza (*Aviceda Leufotes*)
- **Scientific Name-** *Falco Subbuteo* & *Aviceda Leufotes*
- **Status-** Least Concern. (IUCN Red List, 2015).
- **Date of sighting-** 16 nov 19.
- **Time of sighting-** 10.45 AM.
- **Weather parameters-** Sunny.
- **Number of times sighted-** Twice.
- **Number of birds-** Hobby was single and Baza in pair.
- **Gender of bird-** female hobby and Baza pair.
- **Locality-** 30km before Shibkhola MAHANANDA WILDLIFE SANCTUARY, WEST BENGAL .
- **Habitat description-** Deciduous forest .
- **Distance from human habitation-** Approximately 5km.
- **Any other bird/animal associates-** None.
- **Bird behaviour-** Baza Couple First Attacked Hobby 2-3 Times As They Were In That Area Before Hobby Came . But After Half An Hour They Settle On Same Tree Quietly And I Got This Moment.
- **Threats to the habitat-** Advancing human habitation and photography tourism .
- **Photographs-** Attached.
- **Previous records-** Multiple Records from Mahananda wildlife sanctuary but unique because of single frame picture of these elusive migratory birds . Eurasian Hobby take a halt in particular area only for few days .

Recent Sighting of Orange-headed thrush *Geokichla citrina* in Nashik, Maharashtra

Abhijit Gandhi, Samaya Gandhi

Email: abhigandhi@gmail.com

Citation: Gandhi Abhijit, Samaya Gandhi (2020), Recent Sighting of Orange-headed thrush *Geokichla citrina* in Nashik, Maharashtra. *Ela Journal of Forestry and Wildlife* Vol.9 Part 2 (3): 779

Date of Publication:
30 September 2020

ISSN 2319-4361



- **Name of species-** Orange-headed thrush.
- **Scientific Name-** *Geokichla citrina*.
- **Status-** Least Concern. (IUCN Red List, 2019).
- **Date of sighting-** 21st May 2020.
- **Time of sighting-** 3:23 PM
- **Weather parameters-** Sunny, dry and hot.
- **Number of times sighted-** Once.
- **Number of birds-** Single.
- **Gender of bird-** Unidentified (probably non-breeding male).
- **Locality-** Gajapanth Society, Mhasrul, Dindori road, Nashik, Maharashtra, India.
- **Habitat description-** Shady undergrowth, residential area, bungalow society, inside bungalow compound, silent and less disturbed backside of my bungalow.
- **Distance from human habitation-** Not more than 7 feet.
- **Any other bird/animal associates-** On same day (21st May) Indian pitta *Pitta brachyura* was seen.
- **Bird behaviour-** Saw single bird feeding at side margin and a shady undergrowth behind my house. It was seen only once. The bird was panting.
- **Threats to the habitat-** Human disturbance, paver blocks to the ground, frequent 'cleaning' of side margins of bungalows.
- **Photographs-** Attached.
- **Previous records-** After talking to local bird watchers and searching the web no authentic record was found.

Panel of Experts/Referees for Ela Journal of Forestry and Wildlife

S. No.	Name & Designation	Area of Specialization	Address	Telephone No.	Email
1	Dr. Satish A. Pande Professor Chief Editor	Ornithology, Medicine	C-9, Bhosale Park, Sahakarnagar No. 2 Pune 411009	+91-020- 9822193707	Pande.satish@gmail.com
2	Jeet Singh APCCF	Forestry	APCCF-RET, Vanbhavan, Pune	+91-020- 9422271814	virk1962@rediffmail.com
3	Reuven Yosef Professor	Ornithology, Ecology	Ben Gurion University of the Negev, Eilat Campus P. O. Box 272 Eilat 88106, ISRAEL	+972 53 7671290	ryosef60@gmail.com
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5	Dr. Kalpana Pai Professor	Biodiversity & Zooplankton ecology	Centre of Advanced Study, Department of Zoology, Savitribai Phule Pune University (formerly University of Pune), Ganeshkhind Pune-411007	+91-020-25601436 9850936759	kalpanapai@unipune.ac.in drkalpanapai@gmail.com
6	Dr. N.P. Gramapurohit Associate Professor	Behavioural ecology of Amphibians	Centre of Advanced Study, Department of Zoology, Savitribai Phule Pune University (formerly University of Pune), Ganeshkhind Pune-411007	+91-020-25601436	naraharipg@gmail.com
7	Dr. Ramesh D. Gulati Emeritus Guest Scientist	Limnology Aquatic Ecology	Department of Aquatic Ecology, NIOO/Netherlands Institute of Ecology, 6708 PB Wageningen The Netherlands	+31.317473550	R.Gulati@nioo.knaw.nl
8	Dr. Aswini Pai Associate Professor and Co-Chair	Ethnobotanist and plant ecologist	Biology Johnson Hall of Science, Room 227 St. Lawrence University 23 Romoda Drive, Canton, NY 13617, USA	+001-(315) 229- 5810 800-285-1856	apai@stlawu.edu

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9	Dr. Yogesh Shouche Scientist 'G'	Microbial ecology, Microbial molecular taxonomy and biodiversity	National Centre for Microbial Resource, National Centre for Cell Science, Ganeshkhind Pune-411007	+91-020-25329027	yogesh@nccs.res.in
10	Dr. Uma Shaanker Professor in the Department of Agriculture and Life Sciences, Ashoka University, India.	Biodiversity, Endophytes, Plant Evolutionary Biology, Conservation Genetics, Bio-prospecting	R. Uma Shaanker Department of Crop Physiology, University of Agricultural Sciences Bangalore, India	+91- 080-23636713	umashaanker@gmail.com rus@vsnl.com
11	Suruchi Pande Head, Dept. Of Ethno-Ornithology, OENSL -Ela Foundation & MES, A.G.College Campus	Ethno-Ornithology	C-9, Bhosale Park, Sahakarnagar No. 2 Pune 411009	+91-020-9881144651	suruchipande@gmail.com
12	Gombobaatar Sundev Professor, Department of Biology, National University of Mongolia	Ornithology Taxonomy	Director, Mongolian Ornithological Society P.O.Box 537, Ulaanbaatar 210646A, Ikh surguuli gudamj-1, Ulaanbaatar, MONGOLIA. Tel: Fax: 976-11-320159 E-mail	976-99180148; 976-90112244 (mob.); 976-11-323970 (off.)	info@mos.mn ; gomboo@num.edu.mn
13	Hemant Ghatge Professor	Entomology	Prof. Emiritus, Department of Zoology, Modern College of Arts, Science and Commerce, Off J.M. Road, Pune, 411005	+91-020-9960629667	hemantghate@gmail.com

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Tourist Perceptions Regarding Problem and Prospect of Religious Tourism in Nashik District

P. A. Pagare¹ & Dr. D. S. Gajhans²

¹Department of Geography, M.V.P Samaj's Arts, Science and Commerce College, Ozar (MIG). (M S).

²Department of Geography, M. S. S. Ankushrao Tope Arts, Science and Commerce College, Jalna (M S).

Abstract

Tourism is two-way process has a complex and diverse impact on society, economy, ecology and landscape. But it is an accepted fact that, tourism is critical to the growth of tourism in a variety of communities, clusters, and individuals who rely on their morals, attitudes, and resources. Tourism growth brings with it a slew of issues. As a result, the visitor experience is critical to the image and development of a destination. This study aims to understand prospect and problems of tourism with the help of tourist perceptions and attitudes about tourism impacts in selected religious places of Nashik district i.e. Trimbakeshwar, Panchvati and Kalaram Mandir. Tourist responses to a variety of factors connected to tourism development have been measured using random sampling. Factor analysis, ANOVA, descriptive statistics were used to assess Likert scale answers. The findings revealed that tourists are concerns regarding religious tourist places of Nashik district. It is found that religious magnetism, natural magnetism and the destination's socio-cultural context are what draw visitors. On the basis of the responses of the tourist Trimbakeshwar is most popular religious tourist destination in Nashik district. As a result, evaluating tourist perceptions can be used as a metric for establishing a tourism location's competitiveness, as well as a tool for developing appropriate tourism regulations and infrastructure changes.

Keyword: Religious Tourism, Prospect and Problems, Factor Analysis.

Introduction

Tourism has turned into a noteworthy part of modern economic development (Weaver and Lawton, 2010). It has been acknowledged as a substantial contributor to the global economy (Holloway et al., 2009) and one of the most important parts of socio-economic development (UNWTO, 2010). Both developed and developing countries rely on tourism to bring in revenue (Rao, 2014). In 2019, there were 1.5 billion international visitor visits, with India leading the way with a 19 percent rise in international tourist arrivals in South Asia (UNWTO, 2019). It is critical to assess how people perceive a destination's social and physical surroundings in order to improve the tourism industry's performance (Petrosillo et al., 2006). Tourists are notoriously demanding, with multi-layered expectations and needs. Today's "postmodern visitors" are looking for specific conveniences and goals. As a result, both the government and the business sector must develop tourist-friendly facilities. Cina and Botha (2004) found that local support and attitudes had an impact on tourism sustainability. Based on their attitudes and perceptions, tourists develop their happiness or discontent with their holiday (Gnanapala, 2015). It is found that Individual interests and values influence tourist perceptions (Hall, 2005). A standardized questionnaire was utilized by several researchers to assess tourist perception. Sumaco and Richardson, 2011; Chheang, 2011; Elena et al., 2017; Ezeuduji and Mhlango, 2019; Joo et al., 2019; Petrevska, 2019; Chebli et al., 2020) used a Likert scale with scales of 5, 7, or 10 where the highest figure indicates



agreement or satisfaction and the lowest figure indicates disagreement or dissatisfaction. Multivariate analysis (confirmatory factor analysis and principal factor analysis) was also employed to narrow down the number of significant factors (Dey et al., 2013). Chheang (2011) and Ezeuduji and Mhlongo (2019) applied Cronbach's Alpha to statistics. Andereck (2009), Dey et al. (2013), and Helen and Praise (2020) evaluated the change in perception by location using t-test and ANOVA procedures. To compare ordinal variables, Ezeuduji and Mhlongo (2019) employed Spearman's correlation, a nonparametric test. Furthermore, some researchers compared the means of replies using the Mann-Whitney U-test and the Kolmogorov-test Smirnov's (George and Mallery, 2003; Veal, 2011; Elena et al., 2017; Ezeuduji and Mhlongo, 2019).

Study Area

Nashik district lying in the Northwest part of the Maharashtra state located between 19° 35' 18" N to 20°53'07" N latitude and 73°16'07" E to 74°56'27" E longitude with an area of 15,582 sq. km. at an elevation of 565 meters above mean sea level. Three religious sites were chosen for the study lying in the Nashik District i.e., Panchvati, Kalaram Mandir and Trimbakeshwar. Panchvati is a spiritual, religious, and mythological location, situated on the left bank of the Godavari River, in the northern part of Nashik Municipal Corporation, tehsil: Nashik and District Nashik. The area is defined by coordinates: 20° 0' 28.51" N latitude and 73°47'45.88" E longitude. The Panchvati area is spread over an area of about 4 sq. km. on the bank of the Godavari River with an average elevation of 546 meters (MSL).

Trimbakeshwar is one of the twelve Jyotirlingas and is located in the town of Trimbakeshwar, Nasik district, Maharashtra. The area is defined by coordinates: 19°55'55.79"N latitude and 73°31'50.63"E longitude. The city of Trimbakeshwar has located at the foot of Brahmagiri hill, 718 meters MSL. The Kalaram temple is an ancient Hindu shrine dedicated to Lord Rama that can be found in the Panchavati section of Nashik City's Panchavati district. The area is defined by coordinates: 20° 0'25.00"N latitude and 73°47'43.97"E longitude. The Kalaram temple is located near the Panchvati region at an elevation of 549 meters (MSL).

Data collection

To obtain desired perceptions, a survey-based evaluation was performed. During the peak tourist season, standardised questionnaire surveys were used to collect data on tourist perceptions. Individual and group surveys were conducted in 2021-22. Precautions were made to minimise duplication. Because of a lack of participant attention and lucidity, several interviews were not used, which was particularly typical among group visitors. Following a thorough examination of the data's quality and scope, the decision was made to focus on individual tourists rather than groups or clusters. Tourists were interviewed while sitting and relaxing within the premises of neighbouring attractions. The interviews lasted anywhere from 15 to 45 minutes, with an average of 20 minutes.

Sample procedure

The information was gathered from travellers using a random sample technique. Each tourism site had about 90 interviews. A total of 270 tourists were polled over the course of two months. The gathering of data was suffered due to covid restrictions.

Survey instrument

To gather data, a questionnaire was employed, which included demographic and tourist perception questions. The first segment concentrated on the tourists' characteristics, such as gender, age, educational attainment, occupation, and domicile. The second section, on destination perceptions, used a five-point Likert scale, with 1 being the most negative and 5 being the most positive (positive). The relevant regions to study were determined using a trial instrument consisting of 52 indicators. Furthermore, questions about tourist journeys were



collected from the literature (Duman and Mattila, 2005; Suh and McAvoy, 2005). We changed our instrument to meet the study area as a result of this research. Following that, the final survey instrument included 52 variables in 8 categories.

Characteristics of Responders	Category	Trimbakeshwar	Kalaram Mandir	Panchvati
Age	15--20	10.7	9.5	14.3
	20--30	25.9	20.6	23.6
	30--40	18.4	41.3	44.7
	40--50	35.4	7.9	6.7
	50--60	6.5	9.1	9.1
	Above 60	3.1	11.5	1.5
Gender	Male	70.7	78.3	68.9
	Female	29.3	21.7	31.1
Marital Status	Married	39.5	62.1	61.5
	Unmarried	54.8	35.3	28.7
	Divorced	2.9	2.6	8.1
	Widow	1.5	0.0	1.2
	Widower	1.3	0.0	0.5
Nationality	Indian	87.2	97.4	86.6
	other	12.8	2.6	13.4
Native State (Indian Nationality)	Maharashtra	78.5	78.0	83.5
	other	21.5	22.0	16.5
If belong to Maharashtra Name of Home District	Nashik	67.5	41.1	62.8
	Other	32.5	58.9	37.2
Education	Primary	0.57	14.3	2.1
	Secondary	4.21	25.6	7.7
	Higher Secondary	6.70	14.2	11.2
	Graduate	58.43	24.6	61.5
	Post Graduate	29.69	18.2	14.3
	Illiterate	0.38	3.0	3.2
Occupation	Government Servant	16.09	3.44	5.23
	Private	28.93	15.72	31.63
	Businessmen	3.64	13.57	17.30
	Unemployed	18.20	14.20	13.20
	Retired	2.68	29.33	15.32
	Household Worker	4.21	3.41	2.10
	Student	22.03	11.40	13.70
	Other	4.21	8.93	1.52
Monthly Income	Less than 10000	19.35	20.56	41.02
	10000-25000	40.61	33.68	17.63
	25000 -50000	25.86	26.30	25.63
	50000-100000	7.85	10.23	6.96
	Above 100000	6.32	9.23	8.76



Indicator	Variables	Trimbakeshwar	Kalaram Mandir	Panchvati
Companion	Alone	14.37	4.6	11.1
	With Spouse	20.31	16.6	34.4
	Friends	38.51	3.6	8.4
	Family	9.96	52.3	29.3
	Relative	12.07	15.7	9.3
	Co-workers	4.21	4.2	5.2
	Other	0.57	3.0	2.2
No of Persons Accompanied	Less Than 5	58.24	33.60	29.36
	5--10	35.44	52.30	66.46
	Above 10	6.32	14.10	4.10
Duration of Visit	Less than 24 Hours	67.43	89.66	74.85
	24 hours - 72 Hours	30.46	8.23	21.33
	more than 72 Hours	2.11	2.11	3.82
Distance Travelled	Less than 50 km	9.39	6.53	13.64
	50 km--100 km	20.88	21.67	21.63
	100 km - 200 km	59.20	29.59	35.10
	More than 200 km	10.54	42.21	29.63
Mode of Travel	Own Vehicle	76.25	45.54	67.98
	Public Transport	23.75	54.46	32.02
Visit Frequency	First time	32.38	39.52	21.34
	Second Time	40.04	22.30	28.33
	Third Time	19.16	20.14	24.63
	Forth or more time	8.43	18.04	25.70
Purpose of Visit	Leisure	5.94	3.10	9.23
	Religious	59.20	92.20	79.63
	Adventure	19.54	0.00	1.10
	Meditation	2.49	0.00	2.38
	Eco-Argo tourism	0.57	0.00	0.00
	Monsoon Tourism	2.49	0.00	0.00
	Family Vacation	9.77	4.70	7.66
Travel Planning	Owned	92.34	69.12	85.34
	Agent	7.66	30.88	14.66
Source of Information	Social Media	39.46	1.22	3.02
	Govt. Advertisement	4.98	0.00	1.96
	Travel Agency	2.49	10.33	15.63
	Friends and Relatives	23.56	78.32	62.33
	Books & Travel Guide	12.45	0.00	2.31
	Travel Blogs	12.45	1.69	8.80
	Other	4.60	8.44	5.95
Weather During Visit	Sunny	2.49	76.10	89.01
	Pleasant	6.90	3.01	8.60
	Overcast	78.35	0.00	0.00
	Showery	7.85	0.00	0.00
	Rainy	4.41	0.00	0.00
	Foggy	0.00	0.00	0.00



	Other	0.00	20.89	2.39
Preferred Season To visit	Summer	23.95	58.52	70.59
	Winter	8.81	34.33	23.11
	Monsoon Tourism	67.24	7.15	6.30

Tourist profile

Factors	Indicators	Mean	SD	SK	KR	Rank	Factor Loading
Motivating/ magnetic Factor (Average: 3.70) (Eigen Value: 2.801)	Religious	4.95	0.64	-1.208	4.251	2	0.759
	Natural Scenery/Beauty	3.65	0.67	-1.024	1.254	19	0.658
	Adventure	2.22	0.82	-0.998	0.145	25	0.425
	Architecture/Heritage	4.31	0.89	-0.65	0.2654	11	0.522
	Spiritual/Meditation	3.25	1.06	-0.042	0.112	22	0.358
	Fair/Festival	4.01	1.08	0.128	0.0268	15	0.666
	Kumbh	4.98	1.11	0.248	0.2147	1	0.784
Primary facilities (Average: 4.02) (Eigen Value: 2.698)	Other	2.21	1.26	-0.033	-0.214	26	0.529
	Water Availability	3.65	0.39	0.072	2.1753	19	0.633
	Electricity	4.1	0.47	-1.93	4.4425	14	0.532
	Medical Facility	3.98	0.51	-0.924	1.2658	16	0.559
Availability of Services (Average: 4.40) (Eigen Value: 2.584)	Food A availability (Hotel/Prasadalay)	4.33	0.88	-1.055	3.2254	9	0.741
	Banking	4.35	0.98	-0.048	1.2478	8	0.732
	ATM	4.22	1.02	0.242	3.21	13	0.724
	Telecommunication	4.28	1.23	0.112	2.14	12	0.711
	Internet	4.8	1.12	-0.752	1.0287	3	0.648
	Transport	4.65	0.69	-0.247	0.2147	4	0.564
	Shops	4.62	0.88	-1.05	0.325	5	0.692
Administration (Average: 3.55) (Eigen Value: 2.419)	Accommodation	3.86	0.76	-0.05	0.331	18	0.672
	Tourist Facility Centre	3.98	1.02	0.021	0.248	16	0.654
	Security and Safety	3.59	1.05	-0.124	-0.553	21	0.445
	Availability of Guides	3.08	1.02	-0.143	-0.258	24	0.692
Environmental Issues (Average: 4.13) (Eigen Value: 2.018)	Air Pollution	4.44	0.73	-0.074	1.0214 6	7	0.441
	Water pollution	4.62	0.89	-0.921	2.0042	5	0.668
	Solid waste Management	4.32	0.77	-0.248	1.2154	10	0.497
	Overall Cleanliness	3.12	0.92	-1.01	0.832	23	0.471
Overall Cronbach's Alpha (a)=0.889		3.98					

The nature of respondents was based on their socio-demographic characteristics including: gender, age, education, religion, occupation and travelling preferences are summarized in Table 1. The ratio between male and female respondents was 72.6 to 27.3.



The majority of the respondents were aged 21 to 40 years whereas those aged less than 15 or older than 60 were insignificant, majority of the responders were married. Approximately 48.17 percent of the responders were possessing university degree and about 25.42 percent engaged in private services, majority of the responders has income ranging between 10000-250000. In response of companion for the visit, majority i.e., 23.77 percent respondent relied to visit with spouse.

In response to number of persons accompanied, about 51.8 percent responders reply to visit with group of 5-10 persons. The analysis reveals the largest proportion of the responders visited for short duration of less than 24 hours, also majority of responders travelled distance of less than 200 km. In response to the source of information 54.73 percent of the responders noted to know about the location through family and friends.

Descriptive statistics, skewness, and kurtosis

According to criteria recommended by Chou and Bentler (1995), there were no indicators that fell beyond the skewness limits, indicating that all of the indicators are relatively skew-free. Except for three indicators: religion, food availability, and ATM, all kurtosis values were found to be lower than the cut-off value of 3.0 after examining the data.

Overall rating of the destinations by the tourists

Tourism in the Trimbakeshwar, Panchvati and Kalaram Mandir has nearly same level of agreement based on tourist responses. Overall, the Trimbakeshwar has highest agreement of positive perception followed by Kalaram Mandir and Panchvati.

Factors	Trimbakeshwar		Kalaram Mandir		Panchvati	
	Mean	Eigen Value	Mean	Eigen Value	Mean	Eigen Value
Motivating/magnetic Factor	3.61	2.741	3.67	2.854	3.70	2.801
Primary facilities	4.35	2.685	4.21	2.755	4.02	2.698
availability of Services	4.04	2.602	4.18	2.417	4.40	2.584
Administration	3.67	2.154	3.64	2.264	3.55	2.417
Environmental Issues	2.58	2.008	4.25	2.108	4.13	2.018
Overall Cronbach's Alpha	0.785		0.821		0.889	

Discussion

The Nashik district has great importance in the Hindu religion, and mythology, thus tourist who visited Nashik generally has great attractions towards the religious places of district. In addition, the local community also affects the number of tourists and their perceptions as their behavior and hospitality play a vital role in tourism development. Tourists are more likely to return and recommend the destination to their friends and relatives when they feel comfortable and welcomed by host communities. On the other hand, if tourists are treated indifferently or with disregard, a destination can gradually become less attractive. Another important factor in the growth of tourism in recent year is travelling ease and availabilities of facilities and services. Many well-known tourist attractions confront comparable challenges, which are difficult to handle in the setting of "crowds and pollution."



There has been a shift in opinions recently, especially among tourists from metropolitan areas who want destinations to be free of crowds and pollution.

The result of the questionnaire survey suggest that all three religious places has significantly has highest agreement. In the availability of primary services and other availability of other services all three tourist places receive have level of agreement. Religion is major motivating factor in according to the responders. All mentioned tourist destination were serving primary facilities which includes availability of portable and drinking water, electricity medical facilities and food. Apart from these facilities like banking, ATM, telecommunication, internet, transport, shopping and accommodation. In terms of environmental issues Panchvati and Kalaram Mandir has highest agreement while Trimbakeshwar has low agreement which indicating presence of environmental issues in Trimbakeshwar. In terms of administration, the tourist has moderate perception, which mean the administrative services which includes tourist facility centre, security and safety and availability of guides.

Overall, the religious tourist destination of Trimbakeshwar, Kalaram Mandir and Panchvati offers several services and facilities but these places concern with several administrative difficulties, environmental issues, overcrowding, and excessive stress on services.

References

- Andereck, K.L. , 2009. Tourists' perceptions of environmentally responsible innovations at tourism businesses. *J. Sustain. Tour.* 17 (4), 489–499 .
- Chebli, A. , Othmani, M.C. , Said, F.B. , 2020. Market segmentation in urban tourism: Ex- ploring the influence of personal factors on tourists' perception. *J. Tour. Serv.* 20 (11), 74–108 .
- Cina, V., Botha, C. , 2004. Motivational factors of local residents to attend the Aardklop national arts festival. *Event Manag.* 8 (4), 213–222 .
- Dey, P. , Uddin, S. , Hasan, K. , 2013. Tourists' perception towards Cox's bazar sea beach in Bangladesh as a tourist destination. *Asian Bus. Rev.* 2 (1), 54–60 .
- Ezeuduj, I.O. , Mhlongo, P.S. , 2019. Tourists' perceptions of a destination brand Image: KwaZulu-Natal, South Africa. *Afr. J. Hosp. Tour. Leis.* 8 (4), 1–11 .
- Helen, O.O. , Praise, E.E. , 2020. Assessment of tourists' perception and satisfaction in Agodi Park and gardens Ibadan as a nature-based tourism attraction. *Granthaalayah.* 8 (7), 144–159 .
- Holloway, J.C., Humphreys, C. , Davidson, R. , 2009. *The Business of Tourism*. Pearson, London .
- Joo, D. , Cho, H. , Woosnam, K.M. , 2019. Exploring tourists' perceptions of tourism impacts. *Tour. Manag. Perspect.* 31, 231–235 .
- Petrevska, B. , 2019. Tourists' perception: The case of Ohrid, Macedonia. *Acta Geobal-canica* 5 (2), 75–84 .
- Petrosillo, I., Zurlini, G., Grato, E. , Zaccarelli, N. , 2006. Indicating fragility of socio-eco- logical tourism-based systems. *Ecol. Indic.* 6 (1), 104–113 .
- UNESCO, 2015. World heritage sites. <http://whc.unesco.org>. (Accessed on 20th June, 2018).
- UNWTO, 2015. *UNWTO Tourism Highlights: 2015*. (accessed on 20th June, 2018)
- Weaver, D. , Lawton, L. , 2010. *Tourism Management*, 4th ed. John Wiley Sons Australia, Milton, Australia

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Structural, optical and gas sensing properties of barium titanate surface modified by nano silver

Suresh Nahire^{1*}, Manisha Dhiware², Sarika Shinde³, Ganesh Patil³

¹Department of Physics, Arts, Science and Commerce College,
Ozar (Mig), Dist- Nashik 422 206 Maharashtra, INDIA
*sumadhu29@gmail.com

²Department of Physics, V.N. Naik Arts, Commerce and Science College,
Gangapur Road, Nashik 422 002 Maharashtra, INDIA

³Department of Physics, SNJB's KKHA Arts, SMGL Commerce and SPHJ Science College, Chandwad,
Dist- Nashik 422 206 Maharashtra, INDIA
sarikagotan@rediffmail.com, ganeshpatil_phy@rediffmail.com

Abstract: Paper represents the results of SO₂ sensing performance of BaTiO₃ surface modified by nano silver. Surface modification was performed by dipping of BaTiO₃ thick films in the synthesized nano silver. The main objective was to investigate the effect of nano silver on gas sensing performance of BaTiO₃ perovskite. Different intervals of dipping time were used to find the optimum dipping amount on the surface of perovskite oxide. Synthesized silver was characterized by UV-visible spectroscopy and transmission electron microscopy. Surface modified thick films were analyzed for structural, morphological, electrical and gas sensing properties by XRD, SEM with EDX, static gas sensing unit respectively. Selectivity of surface modified BaTiO₃ thick films was also investigated.

Keywords: Nano silver, surface modification, BaTiO₃ thick film, gas sensor.

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I. INTRODUCTION

A number of perovskite-type oxides have been used as gas sensor materials due to their semi-conductive properties and the flexibility of doping and the ease of formulation adjustment [1]. These materials can be obtained either in pure or in doped formulations. Doping flexibility allows controlling of ion transport properties of perovskites and its adsorption/desorption behavior. This advantage is useful to optimize sensor performance.

Perovskite with a general formula of ABO₃ is a large family of crystalline mixed oxides. Perovskite was observed, for the first time, in Russian mountains by Gustav Rose in 1839. Irish crystallographer, Helen Dick McGas, has published X-ray diffraction data on barium titanate having perovskite structure [2]. Early attraction on perovskite oxide application was in the field of catalyst [3]. Their stability and activity as an automotive exhaust catalyst encouraged researchers to study their structures, applications, solid-state chemistry and etc. to explore new candidates for specific catalytic demands and then commercialize them. Early results on the catalytic activity of perovskite and their semiconducting behavior encouraged researchers to test them as sensing materials [4,5].

Gas sensing is a multidisciplinary field which requires fundamental investigation and study on its theoretical and experimental surface chemistry and physics. Understanding of solid-state chemistry and gas sensing parameters such as

conductivity, adsorption properties, doping effect and etc. could help to develop a conceptual framework to have a high-performance gas sensor.

Obayashi et al. have found the first perovskite gas sensor to detect ethanol [6]. Their early observations on the electrical resistivity increasing of perovskite-type oxide in the presence of ethanol led them to test perovskite materials as a gas sensor. They chose (Ln,M)BO₃ (Ln=lanthanoid element, M=alkaline earth metals, and B=transition metal) which had good oxidation-reduction catalyst properties. Their preliminary results showed that B ions in a perovskite-type structure can play an important role in gas sensing mechanism. They have noticed that the activity of ethanol sensors with Fe, Co, Ni ion in B site was good while Mn in this position did not show a good activity. The Fe-containing sample showed the highest response ratio, while Co-containing one showed the shortest response time. In the literatures, response ratio or sensitivity is referred to the relative electrical resistance changes in the presence of a target gas [7].

Nanostructured materials, due to their high specific surface area and low particle size, offer an excellent potential for a substantial increase in the performance of gas sensors [8]. In these materials, the depth of the depletion layer is comparable to the particle size, and it could be extended to the whole particle. Any small interaction of gas-solid at the surface of the material may therefore cause a big change in its overall conductivity resulting in a high

response ratio. Gas sensing performance of a nanostructured MO sensor could further be improved by doping with other elements such as noble metals [9,10].

There are numerous reports dealing with improving the sensitivity, selectivity, and optimum sensing temperature of MO by adding noble metals where they play the role of a catalytic agent on the sensing layer. Eranna et al have provided a literature review on pure and doped MO as gas sensing materials [9]. They have concluded that by adding noble metals to the MO gas sensor, sensing temperature could be reduced. Reducing the sensing temperature is an important issue not only to have a low-cost sensing system (heater integration, operation facilities, etc.) but also to improve the stability and long-term performance of the sensors. High temperature working conditions reduce surface area and increase the mean particle size resulting in degradation of sensor performance.

Increasing the selectivity of MO gas sensors is another big challenge. By adding noble metals, tin oxide has shown good sensitivity to CH₄ and CO separately, but the low selectivity between CO and CH₄ or any other reducing gases still remains a major issue to be addressed [9,11].

Since the catalytic activity and gas adsorption properties of perovskite-type oxides depend strongly on the nature of B-site cations, the selection of B-site will affect their gas sensing properties. In his review paper and based on a number of published works, Fergus [7] concluded that Co and Fe as B-site cations result in a better CO and CH₄ sensing properties than the other transitional metals. Moseley et al [12] reported the gas sensing properties of LaFeO₃-based perovskite at a temperature range of 400-550°C showing a response ratio of approximately 30% while exposed to 300 ppm CH₄.

In this paper, we used chemically synthesized Ag nanoparticles which are used for the surface modification of BaTiO₃ (BT) thick films. Besides, as the base material, BaTiO₃ powders are synthesized by co-precipitation method¹³. The influence of Ag nanoparticles on the gas sensing properties of BaTiO₃ thick films was mainly investigated. This is the first time that Ag nanoparticles are used for the surface modification of BaTiO₃ thick films. No considerable data exist in SO₂ sensing properties of perovskite-type barium titanate surface modified by nano silver.

II. EXPERIMENTAL DETAILS

A. Synthesis of BT and Preparation of BT Thick Films

BaTiO₃ fine submicron powders were synthesized from Ba(OH)₂ and TiCl₄ using a coprecipitation process and thick films were prepared as described elsewhere [13].

B. Synthesis of Silver Nanoparticles

The silver nanoparticles with well dispersion were prepared by reducing AgNO₃ with hydrazine hydrate solution. For the synthesis of silver nanoparticles, silver nitrate solution and Sodium Dodecyl Sulphate (SDS) were used as a metal salt precursor and a stabilizing agent,

respectively. Hydrazine hydrate solution used as a reducing agents. Solution of silver nitrate AgNO₃ was prepared by dissolving 0.0169g of silver nitrate in 100 ml of distilled water. 20 ml of silver nitrate solution was kept in hot plate at 90°C for 5 minutes and then add 2.5 ml of SDS drop by drop once the reduction process begins colour change appears. The transparent colourless solution was converted to the characteristic pale yellow-brown in addition of hydrazine solution was used as reducing agent. The occurrence of colour was indicated the formation of silver nanoparticles [14]. This solution was used for further characterization and surface modification of BT thick films.

C. Preparation of Nano Ag Surface Modified BT Thick Films

The thick films of BT from as-prepared powders were surface modified with Ag nanoparticles by dipping of BT thick films in solution of synthesized silver nanoparticles. In order to compare gas sensing performances, thick films were dipped for different interval timing as 5 min, 10 min, 15 min, 20 min and 30 min and referred respectively as AgBT5, AgBT10, AgBT15, AgBT20 and AgBT30. These films were dried at 100 °C, followed by firing at 550 °C for 30 min and then used for further characterization such as UV-visible spectroscopy, scanning electron microscopy, XRD and tested their gas sensing properties.

D. Characterization and Gas Sensor Test

Phase analysis and crystallite size determination were performed by powder X-ray diffraction (XRD) with Cu/Kα radiation ($\lambda = 0.154$ nm). Scanning was performed between 20° and 80° and the diffractogram were recorded. The Debye-Scherrer equation was used to calculate the average crystallite size (D). Microstructure and morphology of the synthesized powders and surface modified samples were investigated using scanning electron microscopy (SEM).

Gas sensing tests were performed in a reactor consisting of a glass chamber with a capacity of 1000 ml, a heating system with thermocouple to adjust the chamber's temperature [15]. Sample conductivity was first measured under dry air at different temperatures. A mixture of air and 100 ppm gas was then introduced into the chamber while the sample resistance was continuously recorded. To repeat the experiment, the temperature was then increased to 450°C for 5 min under dry air. This step is called "recovery step" during which all gas molecules are desorbed from the surface of the sample. The response ratio was calculated using the following equation:

$$\text{Response ratio (\%)} = \frac{R_{\text{air}} - R_{\text{gas}}}{R_{\text{air}}} \quad (1)$$

where R_{gas} is the resistance under a given gas concentration at constant temperature and, R_{air} is the base resistance at constant temperature under gas-free atmosphere (dry air). Gas testing procedures, including the recovery step, were repeated several times to verify the repeatability of the responses.

III. RESULTS AND DISCUSSION

A. XRD Analysis

Fig. 1 shows the XRD pattern of the BaTiO_3 powder prepared by co-precipitation. In Fig. 1, there is no phase other than BaTiO_3 discovered in the XRD pattern. Fig. 2 shows the XRD pattern of BT modified with silver, no phases other than BaTiO_3 and silver are observed, which is consistent with standard powder diffraction data of JCPDS, No. 05-0626 [16]. This means that no reaction takes place between BaTiO_3 and silver during dipping and sintering process. The average crystallite sizes were calculated using the full width at half maximum FWHM using the Scherrer equation and found to be 15 nm and 30 nm for pure BT and AgBT30 respectively.

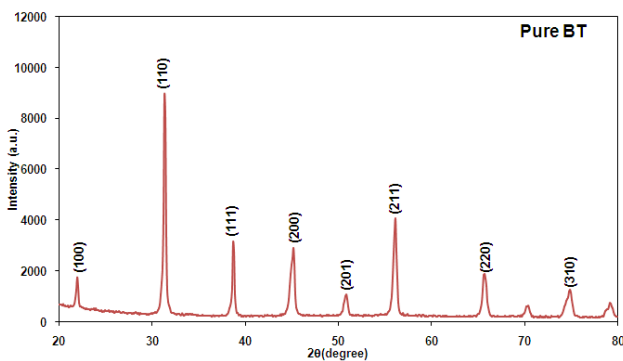


Fig. 1. XRD pattern of BaTiO_3 powder

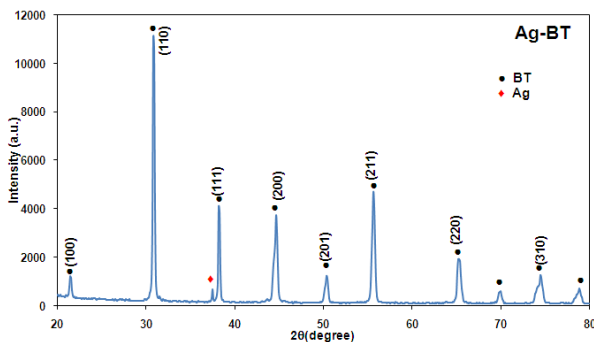


Fig. 2. The XRD pattern of Ag-BT30

B. Characterization of Nano Ag By UV-Visible Spectroscopy and Transmission Electron Microscopy

UV-visible spectroscopy is one of the most widely used techniques for structural characterization of silver nanoparticles. The absorption spectrum (Fig. 3) of the pale yellow-brown silver colloids prepared by hydrazine reduction showed a surface plasmon absorption band with a maximum of 418 nm designating the presence of spherical or roughly spherical Ag nanoparticles, and TEM imaging corroborated this (Fig. 4(a)). This image show agglomerates of minuscule grains and some dispersed nanoparticles with the particles range in size from 2 to 6 nm diameter. The corresponding SAED pattern of silver particles is shown in Fig. 4(b). When the electron diffraction is carried out on a limited number of crystals one observes only some spots of diffraction distributed on concentric rings.

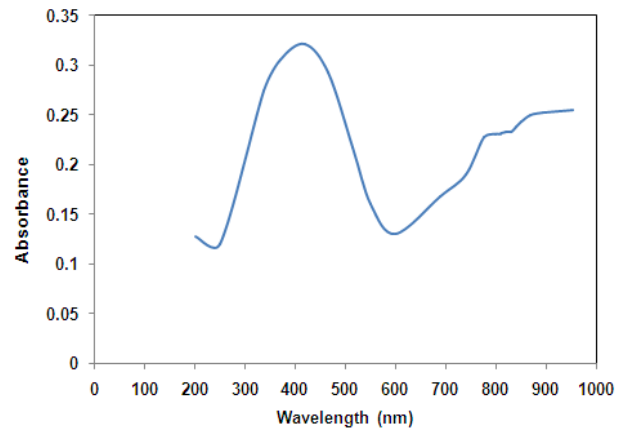


Fig. 3. UV-Vis absorption spectra of nano Ag

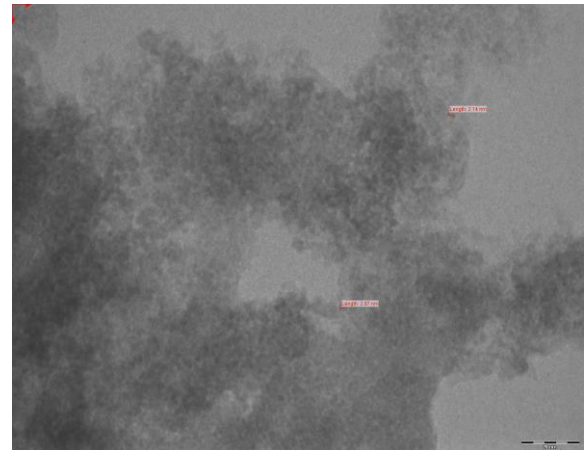


Fig. 4 (a)

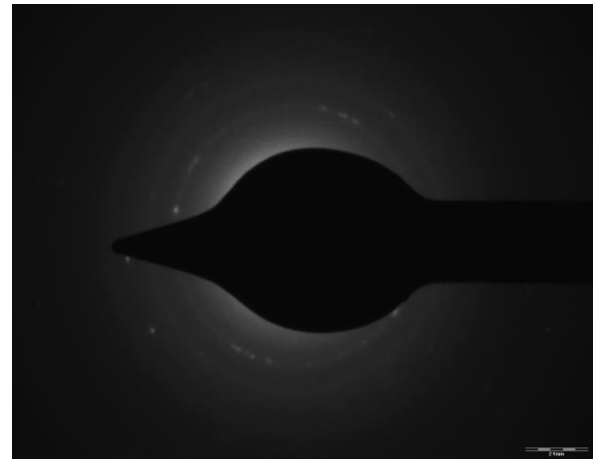


Fig. 4 (b)

Fig. 4 (a-b) TEM image and SAED pattern of nano Ag

C. Surface Morphology by Scanning Electron Microscopy Analysis

The surface morphology of pure BT and surface modified AgBT are shown in Fig. 5 (a-f). As is shown in Fig. 5(a), the grains are relatively uniform with small amount of bigger grains and the average grain size is about 0.2 μm . Interestingly, there are many small silver particles (size range > 0.1 μm) observed in Fig. 5(b). The formation

of small silver particles can be explained that they condensate on the surface of the BT during the dipping process.

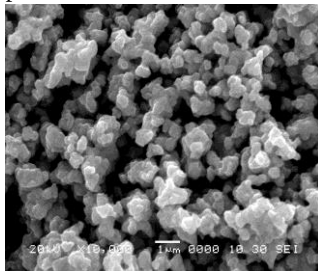


Fig. 5(a) Pure BT

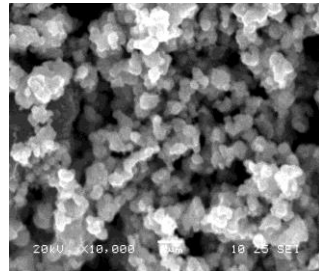


Fig. 5(b) AgBT5

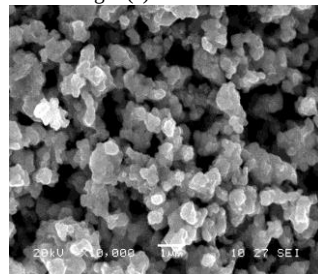


Fig. 5(c) AgBT10

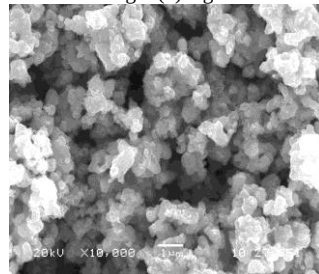


Fig. 5(d) AgBT15

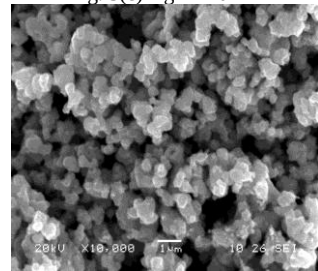


Fig. 5(e) AgBT20

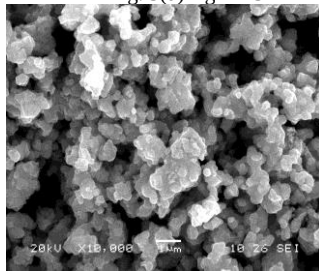


Fig. 5(f) AgBT30

Fig. 5. SEM images of (a) pure BT and (b-f) nano Ag surface modified BT thick films

D. Elemental Analysis by EDX

The EDX analysis of the pure BT and surface modified Ag-BT is shown in Fig. 6(a-f). From EDX analysis, silver exists on the surface of BT and peaks are observed in Fig. 6(b-f). As dipping time increases, there is increase in wt % of silver on surface of BT.

TABLE I. TABLE TYPE STYLES

Element	Pure BT	AgBT5	AgBT10	AgBT15	AgBT20	AgBT30
	wt %	wt %	wt %	wt %	wt %	wt %
O	16.38	35.43	36.23	35.53	36.14	37.14
Ti	12.04	16.60	16.06	16.67	16.10	16.73
Ba	71.58	47.80	47.40	47.39	47.24	45.56
Ag	-	0.16	0.32	0.41	0.51	0.57
Total	100	100	100	100	100	100

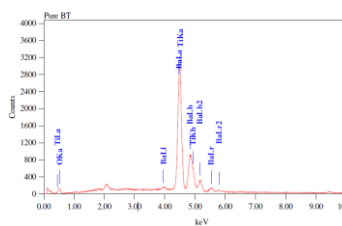


Fig. 6(a) Pure BT

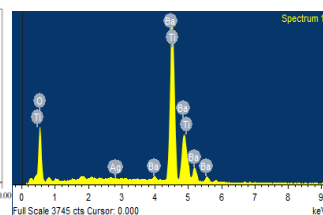


Fig. 6(b) AgBT5

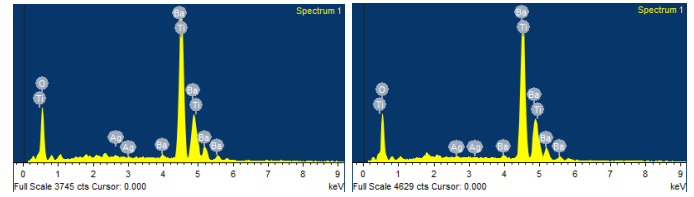


Fig. 6(c) AgBT10

Fig. 6(d) AgBT15

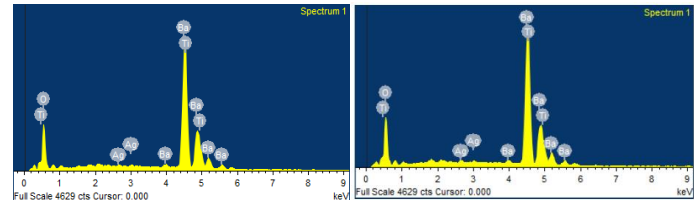


Fig. 6(e) AgBT20

Fig. 6(f) AgBT30

Fig. 6. EDX spectra of (a) pure BT and (b-f) nano Ag surface modified BT thick films

E. Electrical Characterization of Pure BT and Ag-BT Thick Films

a) I-V Characteristics of Pure BT And Ag-BT Thick Films

I-V characteristics of pure BT and Ag-BT thick films are displayed in Fig.7. A good ohmic contact was ensured for above films by applying silver paste on surface of the thick film. From figure nonlinear contact behavior was observed for pure BT and Ag-BT thick film samples.

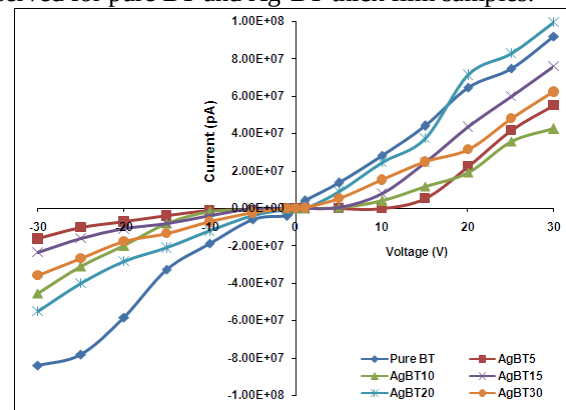


Fig.7. I-V characteristics of pure BT and Ag-BT thick films

b) Electrical Conductivity of Pure BT and Ag-BT Thick Films

Fig. 8 shows the temperature dependent conductivity of pure BT and Ag-BT thick films, exhibiting semiconducting behavior in the whole measured temperature range. The measurements were carried in the temperature range of RT-450 °C. Electrical conductivity of these films goes on increasing with increase in temperature in air ambient, indicating negative temperature coefficient (NTC) of resistance. This shows the semiconducting nature of the films. The conductivities of samples made with surface modified BT were enhanced by surface modified by nano Ag compared with pure BT. The increase in conductivity may be due to the enhancement of the electron concentration by Ag donors. In figure, the AgBT5 sample

showed the highest conductivity in a given temperature range. However, a further increase in dipping time resulted in a systematically decrease of the conductivity. This phenomenon can be attributed to the buildup of space charge potential barriers across the grain boundaries [17].

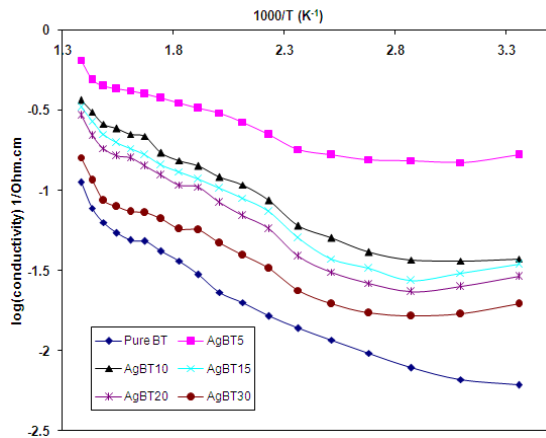


Fig. 8. Variation of electrical conductivity with temperature

F. Gas Sensing Properties of Pure BT and Ag-BT Thick Films

a) Variation of Sensitivity with Operating Temperature

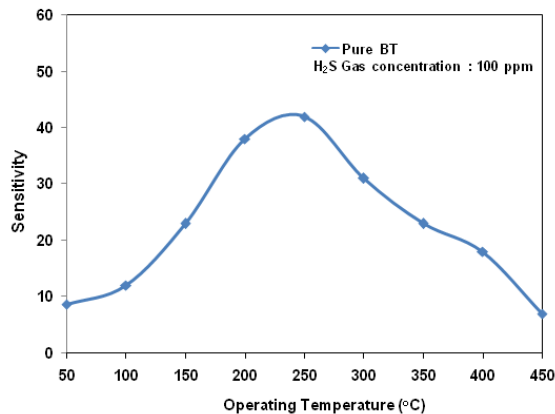


Fig. 9. Variation of H₂S sensitivity of pure BT thick film with operating temperature

Fig. 9 shows the variation in the sensitivity of H₂S (100 ppm) with operating temperatures ranging from 50°C to 450°C. It is noted from the graph that sensitivity increases with increasing temperature, attains a maximum at 250°C, and decreases with further increase in operating temperature. Fig. 10 shows the variation in the sensitivity of pure BT and nano Ag surface modified BT (AgBT) sensors to SO₂ gas (100 ppm) with operating temperature ranging from 50°C to 450°C. The sensitivity to SO₂ of pure BT sensor fired at 550°C was 0.2 at 200°C while that of nano-Ag surface modified (30min) BT sensor was 69.5 at the same operating temperature. Therefore, the nano-Ag surface-modified of BT a sensor was observed to be excellent for SO₂ gas sensing than the pure BT sensor.

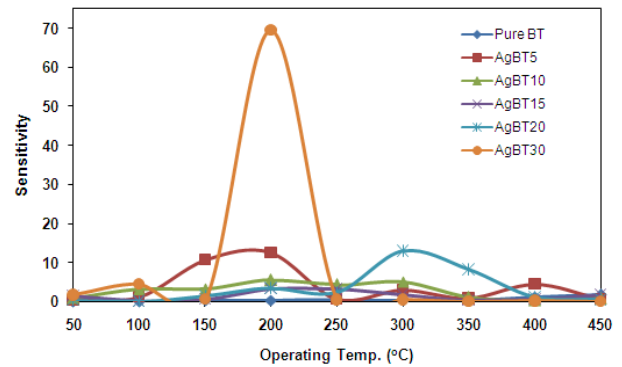


Fig. 10. Variation of sensitivity to SO₂ gas with operating temperature

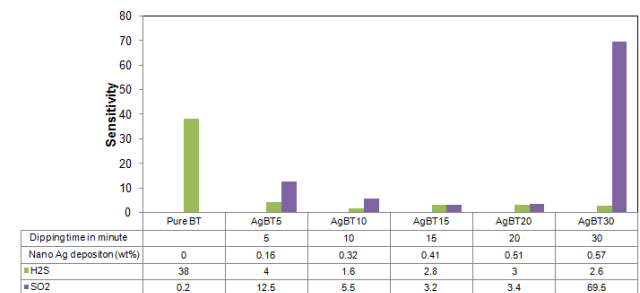


Fig. 11. Variation of sensitivity with dipping time and the amount of nano-Ag (wt%)

Fig. 11 shows the variation of sensitivity with dipping time and the amount of nano-Ag (wt%). The sensor dipped for 30 min showed the maximum gas response to SO₂ gas at operating temperature 200°C. At 30 min dipping time, the sensor would find Ag (0.57 wt%) to be optimum. The optimum wt% of Ag (0.57) would cover the film surface uniformly. As wt% of Ag increases, sensitivity increases due to higher wt % of Ag surfactant available on the base material to react with the gas molecules. The largest sensitivity in case of the sample (30 min) may be because of more available sites (misfits). The surface of nano-Ag misfit regions enhances the oxygen adsorption on the surface. Thus the number of oxygen species adsorbed on the activated surface would be larger. The larger the number of oxygen species adsorbed, the faster the oxidation of SO₂ gas would be. The pure BT sensor showed the highest sensitivity to H₂S, while nano-Ag surface-modified sensor showed it to SO₂ gas. The alteration in nature of gas sensing response from H₂S to SO₂ gas for the nano-Ag surface modified BT sensor could be largely due to possibility of formation of silver sulphide more easily than formation of silver oxide [18]. This would increase the conductance of the film crucially, enhancing sensitivity.

b) Selectivity of Pure BT and Ag-BT Thick Films

Fig. 12 shows the histogram showing selectivities of pure BT and Ag-BT thick films. It is clear from the histogram that pure BT is more selective to H₂S while Ag-BT is more selective to SO₂ gas. Ag misfits on the surface of BT thick film seem to be responsible for the shift in sensitivity from H₂S to SO₂ gas [19].

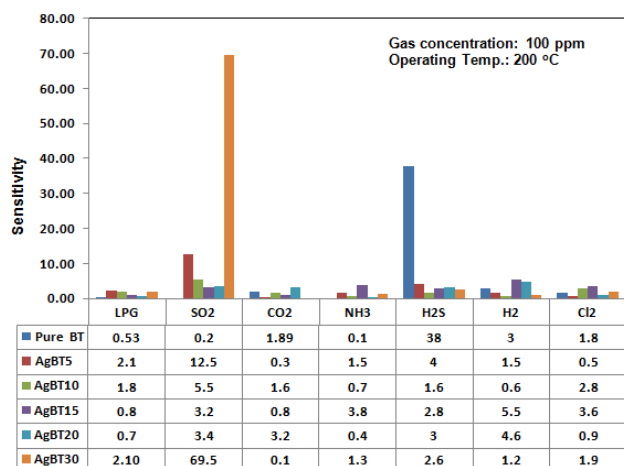


Fig. 12. Selectivity of pure BT and AgBT sensors SO₂ gas (100 ppm) at 200°C

c) Response and Recovery Time of AgBT30 Thick Film

The response and recovery profiles for the most sensitive AgBT30 film are represented in Fig. 13. The response was quick (8 s) and the recovery time was 70 s, at 200°C to SO₂ gas for 100 ppm gas concentration.

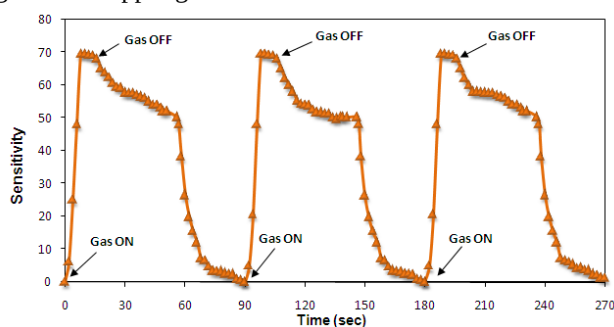


Fig. 13. The response and recovery time of AgBT30 to SO₂ gas (100 ppm) at 200 °C

IV. CONCLUSION

Thick films of BaTiO₃ (BT) were prepared by screen-printing technique. The gas sensing performances of thick films were tested for various gases. It showed maximum sensitivity to H₂S at 250°C for 100 ppm concentration. To improve the sensitivity and selectivity of the film towards a particular gas, BT sensors were surface-modified by dipping them in a solution of nanosilver for different intervals of time. Silver nanoparticles were successfully synthesized by chemical reduction process and which characterized by UV-visible spectroscopy and transmission electron microscopy. Obtained results indicated that nano-Ag grains are highly dispersed on the surface of BT surface and surface modification shifts the sensitivity of the sensor from H₂S to SO₂ gas. The surface-modified BT sensor was observed to be excellent selective to SO₂ gas at operating temperature 200°C. The quick response of the sensor could be attributed to larger oxygen deficiency in the surface-modified BT sensor. Hence surface modification of BT thick films by Ag

using dipping technique is an effective method for improvement of sensitivity of BT based gas sensors.

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REFERENCES

- [1] L.G. Tejuca, J.G. Fierro, J. M. D. Tascon, "Structure and reactivity of perovskite-type oxides", Advances in Catalysis, Academic Press, pp. 237-328, 1989.
- [2] H. D. McGaw, Crystal structure of barium titanate", Nature, vol. 155, pp. 484-485, 1945.
- [3] R. J. H. Voorhoeve, D. W. Johnson, J. P. Remeika, P. K. Gallagher, "Perovskite Oxides: Materials Science in Catalysis", Science, vol. 195, pp. 827-833, 1977.
- [4] T. Arakawa, H. Kurachi, J. Shiokawa, "Physicochemical properties of rare earth perovskite oxides used as gas sensor material", Journal of Materials Science, vol. 20, pp. 1207-1210, 1985.
- [5] T. Arakawa, H. Kurachi, J. Shiokawa, "Deep level in some perovskite oxides as gas sensor materials", Applied Physics Letters, vol. 47, pp. 1183-1184, 1985.
- [6] H. Obayashi, Y. Sakurai, T. Gejo, "Perovskite-type oxides as ethanol sensors", Journal of Solid State Chemistry, vol. 17, pp. 299-303, 1976.
- [7] J. W. Fergus, "Perovskite oxides for semiconductor-based gas sensors", Sensors and Actuators B: Chemical, vol. 123, pp. 1169-1179, 2007.
- [8] M. Ghasdi, H.D. Alamdari, "CO sensitive nanocrystalline LaCoO₃ perovskite sensor prepared by high energy ball milling", Sensors and Actuators B: Chemical, vol. 148, pp. 478-485, 2010.
- [9] G. Eranna, B.C. Joshi, D.P. Runthala, R.P. Gupta, "Oxide materials for development of integrated gas sensors-a comprehensive review", Critical Reviews in Solid State and Materials Sciences, vol. 29, pp. 111-188, 2004.
- [10] N. Yamazoe, "New approaches for improving semiconductor gas sensors", Sensors and Actuators B: Chemical, vol. 5, pp. 7-19, 1991.
- [11] A. Cirera, A. Cabot, A. Cornet, J. R. Morante, "CO-CH₄ selectivity enhancement by in situ Pd-catalysed microwave SnO₂ nanoparticles for gas detectors using active filter", Sensors and Actuators B: Chemical, vol. 78, pp. 151-160, 2001.
- [12] P.T. Moseley, A. Oprea, O. Merdignac-Conanec, M. Kerlau, N. Bârsan, U. Weimar, "Limitations on the use of perovskite-structure oxides in gas sensing as a result of the concurrent operation of separate mechanisms", Sensors and Actuators B: Chemical, vol. 133, pp. 543-546, 2008.
- [13] S. B. Nahire, S. B. Deshmukh, G.E. Patil, V. B. Gaikwad, G. H. Jain, "Sensitive and rapid hydrogen sulfide sensors based on Ni surface modified BaTiO₃ thick films", Journal of Advanced Physics, vol. 5 (2), pp. 110-117, 2016.
- [14] D.N. Chavan, G. E. Patil, D. D. Kajale, V. B. Gaikwad, P. K. Khanna, G. H. Jain, "Nano Ag-doped In₂O₃ thick film: A low-temperature H₂S gas sensor", Journal of Sensors, art. no. 824215, 2011.
- [15] S D Shinde, G E Patil, D DKajale, V B Gaikwad and G H Jain, "Synthesis of ZnO nanorods by spray pyrolysis for gas sensing application", Journal of Alloys and Compounds, vol. 528, pp. 109-114, 2012.
- [16] JCPDS, No. 05-0626
- [17] M. Gautam, A. H. Jayatissa, "Gas sensing properties of graphene synthesized by chemical vapor deposition", Materials Science and Engineering C, vol. 31 (7), pp. 1405- 1411, 2011.
- [18] Sofian M. Kanan, Oussama M. El-Kadri, Imad A. Abu-Yousef and Marsha C. Kanan, "Semiconducting Metal Oxide Based Sensors for

Selective Gas Pollutant Detection”, *Sensors*, vol. 9, pp. 8158-8196, 2009.

- [19] G. Korotcenkov, V. Macsanov, Y. Boris, V. Brinzari, V. Tolstoy, J. Schwank, J. Morante, “Using of SILD technology for surface modification of SnO₂ films for gas sensor applications” *Materials Research Society*, vol. 750, pp. 1-6, 2003.

AUTHOR PROFILE



Suresh Nahire is currently Associate Professor at Arts, Science and Commerce College, Ozar (Mig) Nashik Maharashtra. He has completed Ph.D. from BAMU, Aurangabad, Maharashtra. His interested research area is material science. He published 23 research articles in various referred international and national journals. He also presented research articles in International, National and State level conferences held at Salento University, Lees, Italy (2010), Massey University Palmerstone North, New Zealand (2011), Kolkata, Mumbai, Bhopal, etc. He organized national level conference and state level conference at Sinnar college and Ozar College. He received best poster presentation award in 2011 Fifth International Conference on “Sensing Technology, ICST 2011 Massey University Palmerstone North, New Zealand.



Manisha Dhiware is currently Assistant Professor in Physics at K. V. N. N. Arts, Science and Commerce College, Canada Corner, Nashik, Maharashtra. She qualified NET examination in 2012. She completed Ph.D. from BAMU, Aurangabad, Maharashtra entitle of “Soil Analysis of Nashik Region at Very High Frequency Using Different Techniques”. Her research area interest is Microwave and material science. She published 16 research articles in various referred international and national journals. She organized national level conference at K. V. N. N. Arts, Science and Commerce College, Canada Corner, Nashik. She received National Citizenship Gold medal award best Paper publication in Current Global Reviewer in 2018.



Sarika Shinde is currently Assistant Professor at Department of Physics, SNJB College, Chandwad. She completed PhD from Savitribai Phule Pune University, Pune. Her area of interest is synthesis of nanomaterials for gas sensors. She has published 11 research papers. Her *h*-index is 7.



Ganesh Patil is currently Assistant Professor at Department of Physics, SNJB College, Chandwad. He completed PhD from Savitribai Phule Pune University, Pune. His areas of interest are MOS materials for gas sensors, thin films for solar cells. He is recipient of JSPS HOPE Fellow Award (Japan). He is SAKURA Science Club Member, Japan. He has presented research papers in International conferences at USA, Israel, France, China, Japan, New Zealand, UAE. He has published 35 research papers. His *h*-index is 9.



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ओझर (मिग), ता.निफाड, जि. नाशिक. (महाराष्ट्र) Email- dpsaudagar@gmail.com**सारांश**

संशोधकाने नाशिक शहरातील राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर निवडक प्राणायामाचा होणाऱ्या परिणामांचा अभ्यास केला आहे. या संशोधनाचे मुख्य उद्दिष्ट नाशिक शहरातील राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर निवडक प्राणायामाचा होणारा परिणाम अभ्यासणे. प्रशिक्षण पूर्व कार्यमान व निवडक प्राणायाम प्रशिक्षण कार्यक्रम राबविल्या नंतरचे कार्यमान पाहणे व त्याचा परिणाम अभ्यासणे. परिकल्पना अशी होती की, संशोधनात वापरलेल्या निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम आढळून येईल. सदर संशोधनाची परिसीमा ३० व ४० मीटर इंडियन राउंड ज्युनिअर मुले या क्रीडा प्रकाराचा समावेश केलेला आहे. सदर संशोधनाकरिता संशोधकाने नाशिक शहरातील राज्यस्तरीय तिरंदाजी स्पर्धेमध्ये सहभागी झालेल्या एकूण २० तिरंदाजी खेळाडूंची सहेतुक पद्धतीने निवड केलेली आहे. त्यांचे वय १४-१७ वर्ष होते. प्रस्तुत संशोधनात प्रायोगिक पद्धतीचा अवलंब केला आहे. पीक प्लो चाचणी, ३० व ४० मीटर शुटींग चाचणी ही माहिती संकलनाची साधने वापरण्यात आली असून सांख्यिकीय विश्लेषणासाठी मध्यमान, प्रमाण विचलन, टी परिक्षीका, मध्यमानातील फरक, स्वाधीनता मात्रा, यांचा वापर करण्यात आला आहे. प्राणायाम प्रशिक्षणाचा तिरंदाजी खेळाडूंच्या फुफ्फुसधारण क्षमतेत व कार्यमानावर सार्थक फरक आढळून आला. हे स्पष्ट झाले.

महत्वाच्या संज्ञा: राज्यस्तरीय तिरंदाजी खेळाडू, कार्यमान, प्राणायाम, फुफ्फुसधारण क्षमता

प्रस्तावना: योग म्हणजे शरीर आणि मन एकत्र करून केलेली कृती. मन एकाग्र करण्यासाठी व फुफ्फुस धारण क्षमतेत वाढ करण्यासाठी प्राणायामाचा खूपच उपयोग होतो. प्राणायामामुळे शरीरातील प्राणशक्ती उद्दिप्त होते, मानसिक व शारीरिक क्रियेत एकाग्रता प्राप्त केली जाते. सदर संशोधनात तिरंदाजी खेळाडूंची फुफ्फुसधारण क्षमता वाढविण्यासाठी प्राणायामाचा वापर करण्यात आला आहे. तिरंदाजी खेळाडूंच्या कार्यमानात वाढ घडवून आणण्याच्या दृष्टीने प्राणायाम अत्यंत आवश्यक आहे. त्या मार्फत तिरंदाजी खेळाडूंचे कार्यमान वाढविण्याचा संशोधकाचा मानस होता.

संशोधन समस्या व स्पष्टीकरण: “प्राणायामाचा तिरंदाजी खेळाडूंच्या कार्यमानावर होणाऱ्या परिणामांचा अभ्यास” प्राणायाम ही श्वसन संस्थेशी निगडीत अशी महत्वाची क्रिया आहे. श्वसन क्षमता वाढविण्यासाठी प्राणायाम प्रशिक्षणाचा सध्या भरपूर प्रमाणात उपयोग केला जातो. संशोधक प्राणायाम प्रशिक्षणाचे तंत्र, तिरंदाजी या खेळासाठी वापरणार असून खेळाडूंच्या फुफ्फुस धारण क्षमतेत वाढ होते का हे प्रयोगाद्वारे पाहण्याचे ठरविले आहे.

संशोधनाचे महत्व:

- प्रस्तुत संशोधनातून तिरंदाजी खेळाडूंचे कार्यमान उंचावण्यासाठी प्राणायामाची मदत होईल.

प्राणायामाचा तिरंदाजी खेळाडूंच्या कार्यमानावर होणाऱ्या परिणामांचा अभ्यास**प्रा. दिपक प्रकाश सौदागर**संचालक, शारीरिक शिक्षण व क्रीडा म.वि.प्र. समाजाचे कला, विज्ञान व वाणिज्य महाविद्यालय,
ओझर (मिग), ता. निफाड, जि. नाशिक. (महाराष्ट्र) Email- dpsaudagar@gmail.com**सारांश**

संशोधकाने नाशिक शहरातील राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर निवडक प्राणायामाचा होणाऱ्या परिणामांचा अभ्यास केला आहे. या संशोधनाचे मुख्य उद्दिष्ट नाशिक शहरातील राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर निवडक प्राणायामाचा होणारा परिणाम अभ्यासणे. प्रशिक्षण पूर्व कार्यमान व निवडक प्राणायाम प्रशिक्षण कार्यक्रम राबविल्या नंतरचे कार्यमान पाहणे व त्याचा परिणाम अभ्यासणे. परिकल्पना अशी होती की, संशोधनात वापरलेल्या निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम आढळून येईल. सदर संशोधनाची परिसीमा ३० व ४० मीटर इंडियन राउंड ज्युनिअर मुले या क्रीडा प्रकाराचा समावेश केलेला आहे. सदर संशोधनाकरिता संशोधकाने नाशिक शहरातील राज्यस्तरीय तिरंदाजी स्पर्धेमध्ये सहभागी झालेल्या एकूण २० तिरंदाजी खेळाडूंची सहेतुक पद्धतीने निवड केलेली आहे. त्यांचे वय १४-१७ वर्ष होते. प्रस्तुत संशोधनात प्रायोगिक पद्धतीचा अवलंब केला आहे. पीक प्लो चाचणी, ३० व ४० मीटर शुटींग चाचणी ही माहिती संकलनाची साधने वापरण्यात आली असून सांख्यिकीय विश्लेषणासाठी मध्यमान, प्रमाण विचलन, टी परिक्षीका, मध्यमानातील फरक, स्वाधीनता मात्रा, यांचा वापर करण्यात आला आहे. प्राणायाम प्रशिक्षणाचा तिरंदाजी खेळाडूंच्या फुफ्फुसधारण क्षमतेत व कार्यमानावर सार्थक फरक आढळून आला. हे स्पष्ट झाले.

महत्वाच्या संज्ञा: राज्यस्तरीय तिरंदाजी खेळाडू, कार्यमान, प्राणायाम, फुफ्फुसधारण क्षमता

प्रस्तावना: योग म्हणजे शरीर आणि मन एकत्र करून केलेली कृती. मन एकाग्र करण्यासाठी व फुफ्फुसधारण क्षमतेत वाढ करण्यासाठी प्राणायामाचा खूपच उपयोग होतो. प्राणायामामुळे शरीरातील प्राणशक्ती उद्दिप्त होते, मानसिक व शारीरिक क्रियेत एकाग्रता प्राप्त केली जाते. सदर संशोधनात तिरंदाजी खेळाडूंची फुफ्फुसधारण क्षमता वाढविण्यासाठी प्राणायामाचा वापर करण्यात आला आहे. तिरंदाजी खेळाडूंच्या कार्यमानात वाढ घडवून आणण्याच्या दृष्टीने प्राणायाम अत्यंत आवश्यक आहे. त्या मार्फत तिरंदाजी खेळाडूंचे कार्यमान वाढविण्याचा संशोधकाचा मानस होता.

संशोधन समस्या व स्पष्टीकरण: “प्राणायामाचा तिरंदाजी खेळाडूंच्या कार्यमानावर होणाऱ्या परिणामांचा अभ्यास” प्राणायाम ही श्वसन संस्थेशी निगडीत अशी महत्वाची क्रिया आहे. श्वसन क्षमता वाढविण्यासाठी प्राणायाम प्रशिक्षणाचा सध्या भरपूर प्रमाणात उपयोग केला जातो. संशोधक प्राणायाम प्रशिक्षणाचे तंत्र, तिरंदाजी या खेळासाठी वापरणार असून खेळाडूंच्या फुफ्फुसधारण क्षमतेत वाढ होते का हे प्रयोगाद्वारे पाहण्याचे ठरविले आहे.

संशोधनाचे महत्व:

- प्रस्तुत संशोधनातून तिरंदाजी खेळाडूंचे कार्यमान उंचावण्यासाठी प्राणायामाची मदत होईल.

- सदर संशोधनातून तिरंदाजी या खेळाचे कार्यमान व फुफ्फुस धारण क्षमतेचे महत्व कळेल.
- सदर संशोधनाचा तिरंदाजी मार्गदर्शक, क्रीडा प्रशिक्षक, तिरंदाज, शारीरिक शिक्षण क्षेत्रातील लोकांना मदत होईल.
- तिरंदाजी क्षेत्रातील अभ्यास करण्यासाठी या संशोधनातून प्रोत्साहन मिळेल.

संशोधनाची उद्दिष्टे:

१. नाशिक शहरातील राज्यस्तरीय तिरंदाजी पुरुष खेळाडूंच्या कार्यमानावर प्राणायामाचा होणारा परिणाम अभ्यासणे
२. प्रशिक्षण पूर्व कार्यमान व निवडक प्राणायाम प्रशिक्षण कार्यक्रम राबविल्यानंतरचे कार्यमान पाहणे. व त्याचा परिणाम अभ्यासणे.

परिकल्पना:

H0: निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम होणार नाही.

H1: निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम होईल.

संशोधनाची व्याप्ती व मर्यादा:

१. प्रस्तुत संशोधनात ३० व ४० मीटर इंडियन राउंड ज्युनिअर मुले या क्रीडा प्रकाराचा समावेश केलेला आहे.
२. सदर संशोधनात नाशिक शहरातील राज्यस्तरीय तिरंदाजी पुरुष खेळाडूंचा समावेश आहे.
३. तिरंदाजी खेळाडूंचा आहार, दैनंदिन कार्यक्रम यावर नियंत्रण नव्हते.

संशोधन पद्धती:

प्रस्तुत संशोधनात एकलगत प्रायोगिक पद्धतीचा अवलंब केला आहे.

जनसंख्या

प्रस्तुत संशोधनात नाशिक शहरातील राज्यस्तरीय तिरंदाजी खेळाडू आहे.

न्यादर्श

संशोधकाने नाशिक शहरातील एकूण २० राज्यस्तरीय तिरंदाजी खेळाडूंची सहेतुक पद्धतीने निवड केली आहे.

संशोधनाची साधने:

सदर संशोधनात संशोधकाने राज्यस्तरीय तिरंदाजी खेळाडूंच्या फुफ्फुस धारण क्षमता व तिरंदाजी खेळाडूंचे कार्यमान याचे मापन करण्यासाठी पीक फ्लो चाचणी, तीस व चाळीस मीटर शुटींग चाचणीचा वापर केला आहे.

निवडक प्राणायाम: दीर्घश्वसन, अनुलोम विलोम, उज्जायी, भस्त्रिका, भ्रामरी, सूर्यभेदन, चंद्रभेदन,

संख्याशास्त्रीय साधने:

सदर संशोधनातील माहितीचे विश्लेषण करण्यासाठी मध्यमान, प्रमाण विचलन, टी परिक्षीका, मध्यमानातील फरक, स्वाधीनता मात्रा, या संख्याशास्त्रीय साधनांचा वापर केला आहे.

संख्या शास्त्रीय माहितीचे विश्लेषण व अर्थनिर्वचन:

प्रस्तुत संशोधनात संशोधकाने SPSS (Statistical Package for the Social Sciences) सॉफ्टवेअरचा वापर करून संख्याशास्त्रीय विश्लेषणावरून योग्य अर्थनिर्वचन करून निष्कर्ष काढले.

कोष्टक क्र. १

तिरंदाजी खेळाडूंच्या एकल प्रायोगिक गटाच्या पीक फ्लो पूर्व व उत्तर चाचणीचे व

३० व ४० मीटर शुटींग पूर्व व उत्तर चाचणीचे वर्णनात्मक विश्लेषण (N= २०)

कसोटीचे	पूर्व/उत्तर चाचणी	मध्यमान	प्रमाण विचलन	प्रमाण	मध्यामानातील	टी मूल्य	स्वाधीनता	टू- टेल्ड सार्थकता
पीक फ्लो	पूर्व चाचणी	५१९.००	५३.३८	११.९३	४७.५००	१०.२४१	१९	०.०००
	उत्तर चाचणी	५६६.५०	६६.६८	१४.९१				
३० व ४० मीटर शुटींग	पूर्व चाचणी	२६९.५०	११.०३	२.४६	७.७००	१०.६०८	१९	.०००
	उत्तर चाचणी	२७६.२०	१०.९१	२.४४				

कोष्टक क्र. १ वरून असे दिसून येते की, पीक फ्लो पूर्व व उत्तर चाचणीच्या प्राप्तांकाचे संख्याशास्त्रीय विश्लेषण केले असता पीक फ्लो पूर्व चाचणीचे मध्यमान अनुक्रमे ५१९.०० (प्रमाण विचलन $\pm$ ५३.३८) तर उत्तर चाचणीचे मध्यमान ५६६.५० (प्रमाण विचलन $\pm$ ६६.६८) एवढे आढळले.

वर्णनात्मक सांख्यिकीवरून असे दिसून येते की, वीस तिरंदाजी खेळाडूंची पीक फ्लो कसोटीतील पूर्व व उत्तर चाचणीतील मध्यमानाची तुलना केली असता मध्यमानातील फरक हा ४७.५०० एवढा असून प्राप्त 'टी' मूल्य हे १०.२४१ असून स्वाधीनता मात्रा १९ साठी ०.०५ सार्थकता स्तरावर सार्थक आहे. याचाच अर्थ प्रशिक्षणामुळे फुफ्फुस धारण क्षमतेच्या कार्यमानामध्ये सार्थक फरक आढळून आला.

कोष्टक क्र. १ वरून असे दिसून येते की, एकल प्रायोगिक गटाच्या ३० व ४० मीटर शुटींग कसोटीच्या पूर्व व उत्तर चाचणीच्या प्राप्तांकाचे संख्याशास्त्रीय विश्लेषण केले असता ३० व ४० मीटर शुटींग पूर्व चाचणीचे मध्यमान अनुक्रमे २६९.५० (प्रमाण विचलन $\pm$ ११.०३) तर उत्तर चाचणीचे मध्यमान २७६.२० (प्रमाण विचलन $\pm$ १०.९१) एवढे आढळले.

वर्णनात्मक सांख्यिकीवरून असे दिसून येते की, २० तिरंदाजी खेळाडूंची ३० व ४० मीटर शुटींग कसोटीतील पूर्व व उत्तर चाचणीतील मध्यमानाची तुलना केली असता मध्यमानातील फरक हा ७.७०० एवढा असून प्राप्त 'टी' मूल्य हे १०.६०८ असून स्वाधीनता मात्रा १९ साठी ०.०५ सार्थकता स्तरावर सार्थक आहे. यावरून असे स्पष्ट होते की, गटातील सर्व तिरंदाजी खेळाडूंच्या कार्यमानात निवडक प्राणायामाचा सार्थक फरक आढळून येतो.

परिकल्पनेची फलश्रुती:

H0: निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम होणार नाही.

H0: M1 = M2

H1: निवडक प्राणायामाचा राज्यस्तरीय तिरंदाजी खेळाडूंच्या कार्यमानावर सार्थक परिणाम होईल.

H1: M1 ≠ M2

सदर संशोधनात संशोधकाने H1 या संशोधन परिकल्पनेचा स्विकार केला आहे. आणि H0 या शून्य परिकल्पनेचा त्याग केला आहे.

निष्कर्ष:

१. प्राणायाम प्रशिक्षणाचा राज्यस्तरीय तिरंदाजी ज्युनियर पुरुष खेळाडूंच्या फुफ्फुस धारण क्षमतेच्या कार्यमानावर ०.०५ सार्थकता स्तरावर संख्याशास्त्रीय दृष्टीकोनातून सार्थक फरक आढळून आला आहे.

२. प्राणायामाच्या प्रशिक्षणाचा राज्यस्तरीय तिरंदाजी ज्युनियर पुरुष खेळाडूंच्या ३० व ४० मीटर शुटींग कौशल्याच्या कार्यमानावर ०.०५ सार्थकता स्तरावर संख्याशास्त्रीय दृष्टीकोनातून सार्थक फरक आढळून आला आहे.

संदर्भ:

आलेगावकर, प. म. (१९९४). प्रगत क्रीडा मानसशास्त्र (प्रथमावृत्ती आ.). पुणे: कॉन्टिनेन्टल प्रकाशन.

भिंगाडे, व. र. (२००५). शैक्षणिक संशोधन पद्धती. पुणे: नित्य नूतन प्रकाशन. पुणे

पंडित, ब. ब. (१९९७). शिक्षणातील संशोधन (प्रथम आवृत्ती आ.). पुणे: नूतन प्रकाशन.

बाम, भ. (२००८). विनिंग हँबीट्स. दिल्ली, इंडिया: पिअर्सन पॉवर पब्लिशर.

बी.बी. पंडित. (१९९७). शिक्षणातील संशोधन (प्रथमावृत्ती आ.). पुणे: नूतन प्रकाशन.

बोर्जेस, ज. (२००८). डायमंड क्रीडा ज्ञानकोश (प्रथम आवृत्ती आ.). पुणे: डायमंड पब्लिकेशन.

भोसेकर, च. (१९९९). पातंजल योगदर्शन. मुंबई: योगविद्यानिकेतन.

Daniel M. Landers, Stephen H. Boutcher & Min Q. Wang (2002). A Psychobiological Study of Archery Performance, Research Quarterly for Exercise and Sport, 57:3, 236-244, DOI:10.1080/02701367.1986.10605403

Michael, J & Smith, Richard & Rooney, Kieron. (2012). Physiological Responses to Kayaking with a Swivel Seat. International journal of sports medicine. 31. 555-60.10.1055/s-0030-1252053.

Lee, K., & Inch, N. (2009). Evaluation of Attention and Relaxation Levels of Archers in shooting Process using Brain Wave Signal Analysis Algorithms. International Sports Journal, 12 (3), 341-350.

Peterson, M. (2006). Archery shooting Five Key Components for Accuracy. Retrieved March 12, 2018, from mental game coaching. Com :<http://www.mentalgamecoaching.com>

Stone, R. T. (2007). The Biomechanical and Physiological link Between Archery Techniques and Performance. Proceedings of the Human Factors and Ergonomics Society Annual Meeting, (pages. 1227-1231).



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Research Article

Women and Social Change in Nineteenth Century India

Mr. Prashant Vasant Ransure^{1*} and Dr. Pankajkumar Shankar Premsagar²

¹Assistant Professor, Department of History, MVP Samaj's Arts, Science and Commerce College Ozar (Mig)

²Associate Professor, Department of History, Smt. G. G. Khadse Arts, Science and Commerce College, Muktainagar

Corresponding Author: Mr. Prashant Vasant Ransure, E-mail: pvransure4@gmail.com

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ABSTRACT

The quest of women struggle for freedom, equality and right has a long history, Indian women is always suppressed under the prejudices set by the various religious text, and as a result of which she has always been suppressed and received the humiliating treatment. But with the coming of the colonial rule in India and with the influence of the liberal and utilitarian philosophy and the work of the various social reformers who had a scientific temperament, to look at the social problems of the women, this brought radical change in the social condition of the women in the nineteenth century, and the changes definitely brought changes in various dimensions in the life of the women like education, equal rights, reformations in the marriage customs and so on this all has happened in the nineteenth century that is the reason this period is also known as the period of social awakening and social enlightenment, this provided identity and dignity to the women in India.

Introduction

In the history of India the struggle of women for liberation, equality and justice is the most happening period is the Nineteenth Century period, this period saw the beginning of a new India with liberalism and utilitarianism as her basic principle. Although in the earlier period some attempts were made for the women's, but the real serious concern was showed only in the nineteenth century. The social degradation of women made the social reformers to think regarding, emancipation of women, these social thinkers and reformers appealed to the masses for the social change in India, the first serious steps were taken by the social reformers to awaken the masses (Bayly, 1992)

The period prior to the Nineteenth century, eighteenth century was considered as the darkest period in the history of India, especially if we consider the position of women, Illiteracy was the common lot of all Indian women. Sati, child marriage, polygamy and prostitution flourished as never before. Widow-remarriage was strictly prohibited. Indian women were living in a most deplorable condition. This oppressed situation of Hindu women was regarded by the British as an example of the uncivilized Indians. Interested British scholars, missionaries and bureaucrats had applied European standards and values in judging the position of Indian women. Women were described as tradition bound, religious and submissive, who functions in the limited, oppressive and inhuman environment (Bayly, 1993)

In the nineteenth century, the Indians got influenced by the western philosophy, especially the impact of the western literature made tremendous impact on the mind of the Indian intellectuals; this made them to think of the need to modify traditional mores concerning women. The life of a Hindu woman would adapt to the standards of humanitarianism and rationality, women would be educated and oppressive customs would be proscribed

It is observed by the Social reformers that though the elite Hindus have accepted, the need of change, but in the personal and intimate matters, particularly those relating to women, social customs could only alter according to the percepts of the Hindu religion and tradition. Y.D, Phadke observes, "...though the stimulus for the movement came from outside - through western

ideas - it was deeply rooted in the Indian faith in continuity and evolution, rather than in revolt and sudden change.” (Phadke, 2008)

Historians argued that the liberal, utilitarian and rationalist ideas have percolated in the Indian psych through the coming of the English education, which started the process of questioning traditionally accepted practices. In the Nineteenth century there was need felt by the reformers to educate the masses especially the women, by education the awareness can be achieved, which will propagate the process of social reform for women. The reforms initiated by these organizations were modern, progressive and reflected their social and political aspirations for India (Heimsath, 1964)

The programme of reform societies was designed to protect and provide for the needs of Indian women. Societies such as the Brahmo Samaj and the Arya Samaj established schools for girls. The motivation for starting these schools arose from a desire to defend women of their families against the influence of the Christian missionaries. The women's movement in the early nineteenth century was chiefly concerned with the problems of the upper-class women. The life style of elite Hindu women, their conventions and practices of marriage and widowhood had received wide publicity. While reformers aimed at an overall transformation in the Hindu society, specifically attention was paid to eliminating social evils and inhuman practices which were the cause of the disgraceful condition of women. The reformers of this period concentrated their attention on three important aspects of a woman's life: age of. Marriage, the life of widows and their right to remarry and education. (Saxena, 2017)

Sati

Sati was one of the stark evils of the time. In the medieval time period many of the enlightened Muslim rulers tried their best to forbid the practice of sati without any concrete result, because they thought to rule the country it is better not to indulge with the religion, custom and usage of the Hindus. The British government however, showed indifference in this matter due to their official policy of non-interference in the existing laws of both the Hindus and Muslims. But in the nineteenth century the government could not remain indifferent and the person who activated off the official reforms was Rammohan Roy. Roy has been rightly called the father of modern India. He worked ceaselessly to abolish this social evil by law. (Mani, L. 1998)⁶ the number of widows who perished annually in flames was quite considerable and Lord William Bentinck decided to abolish the institution by legislation. Bentinck's convictions were shared not only by Englishmen but also by a good number of enlightened Indians of whom the most important were Rammohan Roy and Dwarkanath Tagore. In opposition to a large number of orthodox. Hindus who made a daunting representation to the Governor-General against his interference with their right to burn their women, Roy and his associates sent a petition supporting the proposed legislation, stating that sati had no religious sanction but was a growth of the middle ages, and physical force was often used in burning unwilling widows. On the 4th December 1829, the famous resolution was passed by which sati was made a crime of culpable homicide punishable with fine, imprisonment, or both (Ibid, 1998)

Child Marriage

The practice of child marriage was institutionalized by the Hindu society for several centuries. The most significant reason was the Shastric injunction that girls were to be married at a young age so that intercourse might take place with the first sign of puberty. (Wagle, N.K. 1999)⁸ Therefore the debate on the right age of marriage was to focus on the interpretation of the Shastras and the religious duty of the parents. Ishwar Chandra Vidyasagar, the noted social reformer of the 19th century, devoted his untiring energy against the evils of early marriage. He strongly backed the view that child marriage was the root of the miseries of Indian widows. He said that if it could be checked and a limit on marriage age of Indian girls could be fixed through official enactments, then the condition of Indian women would improve. Another indefatigable social reformer, Keshabchandra Sen actively supported the women's right for better position and earnestly fought for marriage reforms. On the question of child marriage, Keshabchandra voted against the custom and pointed to the Hindu scriptures, which lay down, “so long as a girl does not know how to respect the husband, so long as she is not acquainted with true moral discipline, so long the father should not think of getting her married.” Consequently Government legislation to improve the situation of minor girls resulted in the first Age of Consent Bill, passed in 1860, which made sexual intercourse with a girl less than ten years, a rape. The bill provided only negligible protection. The ideal of complete surrender was so thorough that it would be only the most exceptional girl who would complain. Social reformers such as M.G. Ranade, Behramji Malabari and Tej Bahadur Sapru, in their attempts to further rise the age of marriage, cited several cases of consummation at the age of ten or eleven which led to serious physical and psychological disturbance. Behramji Malabari brought the problems of legislation controlling the age of marriage of Hindu girls to the forefront. Malabari's newspaper Indian Spectator and the journal East and West were the major literary vehicles for the ‘All India Social Reform Movement’. In 1884 the publication of his notes on Infant Marriage and Enforced Widowhood successfully drew the attention of a wide section of the people and

social reformers to the glaring social evils prevalent in Hindu society. The Government in pursuance of their policy of neutrality and non-interference with the social and religious practices of the people was reluctant to legislate. Official British opinion, with some exception, opposed the legislation (Singh, 2016). The majority of the Indians favoured legislation or some form of deterrent action to restrict child marriages. The Indian social reformers interpreted the government's refusal to legislate as an indirect means of keeping the people backward.

The All India Social Reform Conference led by M.G. Ranade supported the legislation. As a result of the ceaseless efforts of the reformers, in 1891, the Government passed an amendment to the existing Penal Code rising the age of consent from ten to twelve. The passing of the Bill constituted a definite legal support towards women's emancipation from age-old bondage. Reform societies like the Brahmo Samaj and the Aiyā Samaj and eminent families like the Tagores tried to establish a trend by personal example. Though the intelligentsia became aware of the evil effects of child marriage and sympathized with the movement, few tried to defy established social practices or to institute social changes within their family. Hence the practice of child marriage and early consummation continued unabated (Ibid, 1999)

Widow Remarriage

A widow is regarded by the Hindus as an unfortunate and inauspicious woman. From the sixth century onwards the Brahmins and their Shastras had rigidly prohibited widows from remarrying. Manu prohibits widow remarriage, with the exception of those women whose marriage had not been consummated (Ibid, 1999)

When sati was abolished by law, the oppression of then widows became more intensified. The natural consequence of the abolition of sati was the recognition of the right of the widow to remarriage. But in this the British were reluctant to take the initiative. They were inclined to treat the question of widow remarriage as a purely social matter to be decided by Hindus themselves. But the enlightened Hindu public opinion worked incessantly to make legislation possible in this direction, by the sixth decade of the nineteenth century. The movement to improve the position of widows was supported by many social reformers.

Prominent among these were Pandit Vidyasagar, Keshab Chandra Sen and Maharishi Karve. Vidyasagar who hailed, like Roy, from Bengal championed the cause of the widows. The main obstacle against widow remarriage, according to the orthodox viewpoint, was that it was not sanctioned by the Hindu lawgivers. Vidyasagar published in 1855 a pamphlet entitled 'Remarriage of Hindu Widows' in which he quoted several passages from Hindu scriptures sanctioning widow remarriage and vehemently pleaded for legislation in its favour. The orthodox pandits condemned the pamphlet and its author. They maintained that the alleged permission for widow-marriage was meant for the bygone golden age in which men were good and women virtuous and not for the degenerate Kaliyuga with its evil men and impious women. Vidyasagar pointed out that even Parashara whose code was considered the most authoritative for Kaliyuga permitted widow-remarriage. M.G. Ranade, like Vidyasagar, attempted to convince the orthodox by quoting and interpreting the Shastras. In 1856 the government, despite the protests of the orthodox, passed the Widow Remarriage Act (Ibid, 1999)

The legislation allowed widows to remarry. On their remarriage however, widows lost property rights in the estate of their deceased husbands. For obvious reasons, while legislation for the prevention of sati was successful, the Hindu Widow Remarriage Act remained ineffective for a long time. Sati could be stopped by the police but policemen could not arrange the remarriage of widows. Though some organizations like the Brahmo Samaj and Arya Samaj actively supported widow remarriage and even a 'Widow Remarriage Society' was formed to work as a marriage bureau for widows, it did not find social acceptance. So deep rooted was the prejudice against widow remarriage at the time that even the most vociferous advocates of the reform often evaded the issue, when it came to be a question of their own sons, brothers or themselves marrying widows. An important exception was the son of Vidyasagar who married a widow. Until 1880s local efforts for social reform were organized without much effect on the country as a whole. In 1884 a united social front was developed through the vigorous activities of Behramji Malabari, another untiring social reformer. Though he was not a Sanskrit scholar like Roy or Vidyasagar and nor being a Hindu, Malabari in his book *Niti Vinod* portrayed the sorrows of Hindu widows, with great fervour. His appeal was to the sentiments of all Indians, not merely to the minds of the educated class. He also addressed a note to the Government explaining the ineffectiveness of the Widow Remarriage Act because of the opposition of the orthodox and the general disabilities of widows which prevented them from taking advantage of the law, and stressing the need for doing something positive in the matter. Malabari devoted his life for the uplift of Indian women. In western and northern India, the movement became quite popular due to the vigorous support of Vishnu Shastri Pandit, the translator of Vidyasagar's book in Marathi, with the active backing of reformers like Ranade, K. T. Telang and Gopal Hari Deshmukh (Ibid, 1999)

But the movement of western India differed from that of Vidyasagar's. While Vidyasagar sought government sanction for widow remarriage, Vishnu Shastri desired the sanction of the highest religious authority with jurisdiction in western India, the Shankaracharya of Karver and Sankeshwar. In Ahmedabad Gujarati reformers formed a Remarriage Association. In Madras Presidency Viresalingam Pantulu launched his crusade against enforced widowhood. The Arya Samaj of Dayanand Saraswati also fought against it. Sporadic and occasional marriages took place with the influences and patronage of the reformers. In Bengal Vidyasagar sponsored a few marriages. The Brahmo Samaj, the Arya Samaj and the Prarthana Samaj encouraged widows to remarry. But the movement did not gain momentum or popularity. The legislation, despite the opinion of the enlightened minority, was far ahead of the sentiments of the population. Widow remarriage was regarded with abhorrence. The ideals of devotion and sacrifice, along with the religious and social conventions, were so well entrenched among the widows that few could be persuaded to remarry. Recognizing these limitations, social reformers like Maharishi Karve concentrated their efforts in promoting education among widows (Ibid, 1999)

Female Education

The Indian women were illiterate and ignorant and therefore could not voice any protest against the existing social evils and the ill-treatment meted out to them. The reformers felt that if women were educated, most of the social evils associated with women could be minimized. Therefore apart from social uplift of Indian women, the other factor that attracted the reformers was the question of female education. The British government introduced a curriculum of studies for Indian schools based on the British model, with English as the medium of instruction. The first modern schools for girls in India were started by Christian missionaries. Because of the age-old Indian prejudice against mixed classes even for children, convents and protestant missions started 'zenana' schools, staffed by lady teachers to which girls alone were admitted (Patil, 1991)

Apart from the activities of the European missionaries, the man who zealously supported the cause of female education was Raja Radhakant Deb. Though he was the leader of the orthodox Hindus who strongly opposed Vidyasagar's crusade against enforced widowhood, yet he personally believed that to make a nation progressive, women must have to be educated. Under his patronage a number of girls' schools were founded in Calcutta. On female education Radhakant Deb published a book written by Pandit Gourmohan Vidyalkar (Ibid, 1991)

Apart from missionary institutions, the Bethune School of Calcutta may be said to be the first regular secular school for girls in India. Vidyasagar and Drinkwater Bethune who noticed the reluctance of the Hindus and Muslims to send their daughters to mission schools because of the Bible classes and fear of conversion started it in 1847. The school proved a great success. The Bethune experiment was soon copied all over India. Due to Vidyasagar's encouragement nearly thirty-five schools were opened in Bengal itself between November 1857 and May 1858.

Keshabchandra Sen started the Bamabodhini Patrika and Paricharika to encourage female education and founded the Antopur Strishiksha Sabha for family women. He also founded a rescue home for innocent girls and orphans. In 1896, Maharishi Karve along with fifteen of his colleagues founded the Ananth Balikashram for the education of widows. The institution made slow and modest progress in the beginning. But gradually it became popular and unmarried girls were willing to be admitted to the school (Ibid, 1991)

In Bombay, Pandita Ramabai, Ramabai Ranade and Francina Sorabjee were the three lady pioneers who dedicated themselves to the education and uplift of their sisters. Francina worked for the welfare of all the communities through education. Francina's chief influence was an unifyingness, which compelled love and obliterated all differences. She brought together children of all communities. In an age when welfare organization had not even been conceived, she did practical social service work in Poona and the adjoining villages.⁸ Ramabai Ranade worked in close collaboration with Francina. Mrs. Ranade actively worked for female education. She also selected for her special field the economic advancement of widows and destitute women. 'The Industrial Home of Service' which she founded at Poona is a self-supporting and expanding organization conducted by capable women to fulfill the growing needs of the day (Kosambi, 2000)

Pandita Ramabai was a rare genius, whose concern for her sisters was emphasized by her own sufferings. Her parents and a sister died of starvation in the famine of 1877, when she was twenty-four and she lost her husband in 1882. The lot of Indian women in general and of widows in particular thoroughly roused her and she undertook a career of social service for the uplift of her sisters. In 1889 she founded the 'Sarada Sadan' in Bombay for the education of women, particularly widows. In 1890 'Sarada Sadan' was transferred to Poona because of the rising cost of living in Bombay. By the year 1900, the inmates of the various 'Homes' she was running reached the remarkable figure of 2000. Most of them were employed in educational and humanitarian work. The efforts of these tireless pioneers and the social reformers began to bear fruit and the old prejudice against female literacy was overcome in India. Gradually the upper classes were feeling that literacy was an accomplishment to girls. Girls' schools were opened in every city and town. The popularity of female education was on the

upward trend and year by year the number of girls attending schools increased. There were also encouraging signs that Indian girls were prepared to go for higher education and even for careers. A direct result of the spread of female education was the rise of literary women in India and the liberation of dancing from brothels. With the spread of education and the general decline in purdah, music and dancing began to be cultivated among the upper and middle classes. Consequently India produced some famous lady musicians and dancers (Ibid, 2000)

The preaching of Ramakrishna Paramhansa was quite a break from the nineteenth century efforts for social upliftment of women. While the reformists worked to obtain legal sanction for their cause, Paramahansa with his simplicity directly appealed to humanity to sanction a revered position for women. His worship of the Goddess Kali attracted the ordinary masses as well as the educated elite. In all women he recognized the mother, even in the most degraded women. And his devotion for the mother cult led men to think and behave politely to women. The ideas of Paramahansa were carried further by his famous disciple Swami Vivekananda's liberalism, humanism and refreshing boldness. According to Vivekananda Indian women should be emancipated from their artificial bondage to make India truly modern. But he was not enthusiastic about widow remarriage, child marriage and other such issues. His view of freedom was that if women were given education, they would themselves be competent to settle all further questions of their fate (Singh, 2016)

In northern India another movement against social evils developed with the founding of the Arya Samaj by Swami Dayanand Saraswati. Dayanand Saraswati held that women were equal to men in their ability to achieve emancipation.

They should be educated and not allowed to marry before they reached eighteen. A staunch Vedantist Swami Dayanand held that widows should be allowed to take other husbands and thus fulfill their role as mothers. The Arya Samaj tracts and newspapers frequently attacked various caste and sect rituals. Dayanand Saraswati insisted that women should be released from the seclusion of purdah and allowed to participate in religious and public life (Ibid, 2016)

Prostitution

The patronage prostitution had enjoyed from rulers and the aristocracy in ancient and medieval India ceased during the British Period. The British disapproval of professional prostitution in the West, the strict attitude of the later British, objection against loose morals, and unpopularity of the 'nautch' among English educated Indians, all had a salutary effect on Indian public opinion about prostitution. Courtesans were no more considered necessary for the adornment of courts or for public entertainment.

The institution of devadasi was abolished during the British period. Dr. Muthulakshmi Reddi's Bill for prohibiting the keeping of paid devadasis in temples was passed into law by the Madras Legislative Council in 1927. Ten years later a bill was passed against the dedication of children to temples. In other provinces the problem was not as serious as in Madras and by the time the British left, there were no temples in India where devadasis were retained (Ibid, 2016)

The outcome of such efforts of reformers was a distinct improvement in the status of women within the family, especially among the urban educated classes. However the aim of reformers was to ensure women some dignity and status within the family.

They did not think of expanding women's role outside the home. Although some women began attending the first few sessions of the Indian National Congress, yet the beginning of women's movement, which organized itself for a share in public life, did not appear till the second decade of the twentieth century. A delegation of women led by Sarojini Naidu went to England to demand franchise for women. The Government of India Act of 1919 conferred limited franchise based on education and ownership of property, on the wives of men voters. The emphasis on wives as an essential qualification for political rights indicated the limited achievement of women's cause till that date. The political movement, which developed along with social reform movement in spite of the fact that it shared many common leaders like Ranade, Naoroji, Shankar Nair and C. Y. Chintamani, was unwilling to associate itself with the reformers' cause. This was manifested in Tilak's opposition to the Age of consent Bill and his refusal to permit the National Social Conference to hold its meeting inside the Congress pandals. Progressive reformers found their causes obstructed by political extremists, while the latter accused the reformers of fondness for the alien government (Sunthakar, 1993)

The social condition of women in India was pathetic, the plight of the women, was difficult to solve, as she was burdened under the customs and traditions, prevailing in India, the impact of the western philosophical ideas, and education, made the social reformers to awaken the masses and ask for the social change in the society so that the women can live with equality and freedom.

References

- [1] Bayly C.A.(1992). *Recovering Liberties: Indian Thoughts in the Age of Liberalism and Empire, Introduction: the meaning of liberalism in colonial India*. Pub:Cambridge University Press, pp.94-99.
- [2] Bayly .C.A. (1993). *Introduction: the meanings of liberalism in colonial India* Pub:Cambridge University Press, pp.45.
- [3] Phadke.Y.D. (2008). *Visavya Shatakati Maharashtra Vol-V*, K'Sagar Publication Pune, pp.367-380.
- [4] Heimsath, C. (1964). *Indian nationalism and Hindu Social Reform*,Bombay, pp.56-59.
- [5] Saxena, G, (2017). *Arya Samaj Movement in India, (1875-1947)*, South Asia Books, pp.68-77.
- [6] Mani, L. (1998). *Contentious Traditions –The Debate on Sati in Colonial India*, Berkeley: University of California Press, pp.44-53.
- [7] Ibid., pp.53-59
- [8] Wagle, N. (1999). *Writers Editors and Reformers: Social and Political Transformations of Maharashtra, (1830-1930)*, New Delhi, pp.76-79.
- [9] Singh, H. (2016). *Rise of Reason: Intellectual History of 19th-centuryMaharashtra*, Routledge Taylor & Francis Group,pp.114-117
- [10] Ibid.,pp.117-125
- [11] Ibid.
- [12] Ibid.
- [13] Ibid., 126
- [14] Ibid., 127
- [15] Patil.P. (1991). *Jotirao Phule, Collected Work, Vol-2*, Govt. Press. Bombay, pp. 92-95
- [16] Ibid., 101
- [17] Ibid., 126
- [18] Kosambi, M. (2000). *Pandita Ramabai through her own words, selected works*, New Delhi,pp.88-93
- [19] Ibid.,95-105
- [20] Singh, H. (2016). *Rise of Reason: Intellectual History of 19th-century Maharashtra*, Routledge Taylor & Francis Group, pp.126-128.
- [21] Ibid.,138-141
- [22] Ibid.,142-151
- [23] Sunthankar, B. R., (1993). *Nineteenth century history of Maharashtra, Volume-II Shubhada-Saraswat Prakashan*,pp.35-39.

An Aeromycological Survey over Capsicum Polyhouse Cultivation

R. K. Patil

Department of Botany, Arts, Commerce and Science College, Ozar, Dist. Nashik Maharashtra.

Email:- ramakanpatil71@gmail.com

Abstract: An extramural survey of airborne microbial components was conducted over the Capsicum field (*Capsicum annum L.*) at Nashik District on closed field of polyhouse during season of June to March i.e approximately throughout year. The data of airborne microbial components was collected with the help of continuous Tilak Air Sampler (Tilak and Kulkarni, 1970). In order to access, the disease incidence to the crop by pathogenic spore types. Over a period of survey, Total 50 fungal spores were reported during season of studies which were contributed by four different groups with varying numbers such as 29 from Deuteromycotina, 14 Ascomycotina, 3 Phycomycotina and 4 Basidiomycotina.

Key Words: Aeromycology, Capsicum, Fungal spore, Polyhouse.

1. INTRODUCTION:

Aerobiology is a branch of Biology, which deals with the study of various aspects like transmission, dispersion, deposition of airborne bioparticles. Airborne micro-organisms and their occurrence, behavior movement and survival is also one of the aspects of aerobiological studies. Aerobiological surveys performed in various location of India revealed that composition and concentration of airborne fungal spores changes from time to time and place to place due to the vegetation, geographic factors as well as change in meteorological factors. Chillies, green or red fruits of *Capsicum annum L.* belong to the family Solanaceae is the inseparable component of spice. Considering commercial value in mind, Capsicum is cultivated as economically valuable crop in India. But cultivars are facing various biotic and 12 abiotic stresses cause immense losses to the chilli crop. Plant diseases are an ongoing limiting factors in crop production. Capsicum plant is easily affected by many fungal diseases. The present paper deals with the survey of various types of fungi over the Capsicum field in polyhouse cultivation.

2. MATERIALS AND METHOD:

Tilak's continuous volumetric air sampler was employed in for collection of fungal spores in the present study (Tilak & Kulkarni 1970). Survey of fungi was carried out by operating Rotorod air sampler weekly for the period of June to March. Simultaneously petri plates containing PDA medium as substrate were exposed at sampling locations in order to collect cultivable fungus.

3. RESULTS AND DISCUSSION:

Total 50 fungal spores were reported during season of studies which were contributed by four different groups (Table 1).

Table 1 - Total 50 fungal spores in 4 different groups

No	Class	Name of spore
I	PHYCOMYCOTINA	<i>Circinella Van. Teigh</i>
		<i>Cunninghamella Matr.</i>
		<i>Rhizopus Enrenberg.</i>
II	ASCOMYCOTINA	<i>Bombardia Fr</i>
		<i>Chaetomium Kunz. Ex. Fr.</i>
		<i>Claviceps Tul.</i>
		<i>Cucurbitaria Gray.ex Grev.</i>
		<i>Didymosphaeria Fuck.</i>
		<i>Hypoxylon Bull.Ex.Fr.</i>
		<i>Hysterium Tode Ex .Fr.</i>
		<i>Lophiostoma Ces de Not.</i>
		<i>Melanospora Corda.</i>
		<i>Oidiopsis Sawada.</i>
		<i>Parodiella (Speg) Theiss and syd.</i>

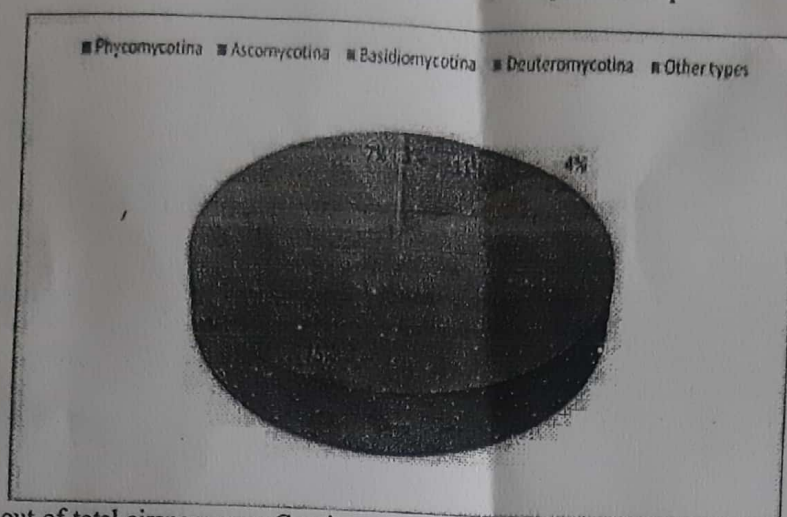
		<i>Pleospora</i> Rabh
		<i>Sordaria</i> Ces and de.
		<i>Sporormia</i> Ces and de. Not
III	BASIDIOMYCOTINA	<i>Basidiospores</i>
		<i>Ganoderma</i> Kaitz.
		<i>Smut Spores.</i>
		<i>Uredospores</i>
IV	DEUTEROMYCOTINA.	<i>Alternaria</i> Nees.
		<i>Aspergillus</i> Michel.ex.Link.
		<i>Botridiplodia</i> Sacc.
		<i>Botrytis</i> Pers.
		<i>Cercospora</i> Fr.
		<i>Cladosporium</i> Link.
		<i>Colletotrichum</i> Corda.
		<i>Corynespora</i> Guessow.
		<i>Curvularia</i> Boed.
		<i>Dactyella</i> Grove.
		<i>Diplodia</i> Fr.
		<i>Drechslera</i> Lto.
		<i>Epicoccum</i> Link.
		<i>Fusarium</i> Link..
		<i>Haplosporella</i> Speg.
		<i>Helminthosporium</i> Link.
		<i>Mammoniella</i> Hohn.
		<i>Myriothecium</i> Tode.Ex.Fr.
		<i>Nigrospora</i> Zimm.
		<i>Periconia</i> Tode .Ex.Schw.
		<i>Pestalotiopsis</i> Niessl.
		<i>Pseudotorula</i> Subram.
		<i>Spagazzinia</i> Sacc.
		<i>Spicaria</i> Auct.
		<i>Stemphyllum</i> Wallr.
		<i>Tetracoccosporium</i> Szabo.
		<i>Trichoconis</i> Clements.
		<i>Trichothecium</i> Link.
		<i>Verticillium</i> Nee

Seasonal concentration and Percentage contribution of different spore group to the total airspora of season-June to March and their percent contribution over the Capsicum Polyhouse cultivation given in Table 2 and Fig. 1.

Table 2 - Seasonal Conc. and Percentage Concentration of Each Spore Group

Sr. No.	Spore type	Seasonal concentration per M3 of air	% conc.
1	Phycomycotina	41874	2.96
2	Ascomycotina	150724	10.66
3	Basidiomycotina	53564	3.79
4	Deuteromycotina	1067332	75.50
5	Other types	100282	7.09
	Total	1413776	100

Figure 1- Percentage conc. of each Spore Group



In study area out of total airspora over *Capsicum annum* L. Deuteromycotina spore group occurred with the highest concentration while Ascomycotina, Basidiomycotina and Phycomycotina found in decreasing order next to it. *Albugo*, *Circinella*, *Cunninghamella* and *Rhizopus* from Phycomycotina showed their remarkable existence. From which *Cunninghamella* is proved the dominant spore type by analysis of Phycomycotina group

REFERENCES:

1. Tilak, S.T. and Kulkarni, R.L., (1970), A new air sampler, *Experientia*, 26: 443-444
2. Gregory P.H., (1952), Fungus pores. *Trans. Brit. Mycol. Soc.* 35: 1-18.
3. Tilak S.T., (1989), Today and Tomorrow Printers and Publishers, New Delhi, 67-78.
4. Mehrotra R. S., (2002), Pathology, Comm. Volume, 336-352.
5. Rajput J.C. and Parulekar, (1998) *Capsicum*, A Hand Book of Vegetable Y.R. Science and Technology- Production, Composition, storage and Processing, Marcel Dekker, New York, 203.

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Invasive plant species of Maharashtra state: a review.

Especies de plantas invasoras del estado de Maharashtra: una revisión.

Bhagwat W. Chavre^{1*} and Ramakant K. Patil²

¹Department of Botany, Arts, Commerce and Science College, Nandgaon, Dist. Nashik (M.S.), India

²Department of Botany, Arts, Science and Commerce College, Ozar (Mig) Tal. Niphad, Dist. Nashik (M.S.), India

*Author for correspondence: chavrebhagwat@gmail.com

ABSTRACT

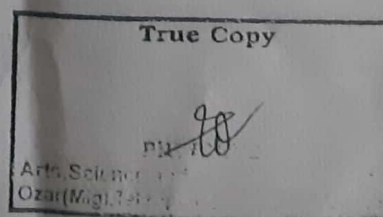
Invasive plants are the species which do not occur naturally in the region but rapidly proliferate in the area where they introduced and causes several negative impacts on local biodiversity, economy and human health. Many such plants are intentionally or non-intentionally introduced in various regions of the world and particularly in India. In the state of, Maharashtra many such plant species have been introduced deliberately for the purpose of ornamentation, agriculture and for other purposes. In this article, efforts are taken to gather information of such invasive alien species introduced in different regions of Maharashtra state.

Key words- Alien, Invasive, Plant species, Maharashtra, Review, Biodiversity.

RESUMEN

Las plantas invasoras son las especies que no se encuentran naturalmente en la región pero que proliferan rápidamente en el área donde se introdujeron y causan varios impactos negativos en la biodiversidad local, la economía y la salud humana. Muchas de estas plantas se introducen intencionalmente o no en varias regiones del mundo y particularmente en la India. En el estado de Maharashtra, muchas de estas especies de plantas se han introducido deliberadamente con fines ornamentales, agrícolas y con otros fines. En este artículo, se realizan esfuerzos para recopilar información de tales especies exóticas invasoras introducidas en diferentes regiones del estado de Maharashtra.

Palabras clave: exóticas, invasoras, especies de plantas, Maharashtra, revisión, biodiversidad.



INTRODUCTION

Alien invasive species are non-native or exotic species which are introduced either accidentally or deliberately (Singh and Kumari, 2013). It is evident from critical observations that, invasive species like *Ageratum conyzoides*, *Argemone mexicana*, *Blumea lacera*, *Cassia occidentalis*, *Datura innoxia*, *Echinops echinatus*, *Glossocardia bosvallea*, *Ipomoea pes-tigridis*, *Lantana camara*, *Merremia aegyptia*, *Parthenium hysterophorus*, *Sesbania bispinosa*, *Tribulus terrestris*, *Xanthium strumarium*, *Youngia japonica* and many others are the plants of American origin proved to become invasive in many countries in the world including India (Reddy et.al, 2008). These species thought to be introduced in different countries through import and export of grains as well as for the purpose of ornamentation. In, India *Lantana camara* was introduced in the early 19th century as an ornamental plant (Hiremath, 2018) and *Parthenium* grass was introduced through wheat imports from America in 1956 (Jana, 2015). Now a day, various invasive plants including *Lantana camara* have occupied almost every continent of the world (Goncalves et.al., 2014).

As compare to native plants, invasive plants are characterized by their fast growth, higher leaf area, shorter life cycle, more seed production, wide dispersal mechanism, higher seed germination percentage, ability to adapt in new environmental conditions (Daehler, 2003).

It is reported that, once established to a particular region, invasive plants start competing the native flora in several ways. Invasive plants occupy more area thereby reducing the growing ability of original native inhabitants (Gioria et al, 2018). Sometimes they show allelopathic effects on the native tree seedlings and seeds (Thiebaut et.al. 2019). Due, to their overcrowding, sometimes they invite fires and ultimately soil erosion (Keeley, 2006, Brooks et.al., 2004). It is also reported that, some invasive plants species establish underground mutualism with some soil fungi and checks growth and germination of the native plant species (Geisen et.al., 2021). Not only they are deadlier to native plants, they also impose many ill effects on local animals, birds and human being too. Many Invasive plant species are proved to responsible for decreased bird diversity, toxic to livestock and affects many health problems to human being (Schirmel et.al., 2016). It is also reported that, various invasive species caused great economic losses in agriculture (Reddy et.al, 2008).

The invasive alien species negatively impacts on biodiversity and ecosystem. Protected areas including wildlife sanctuaries and national parks form different parts of India also affected by these invasive species like *Lantana* and *Eupatorium* (Hiremath and Sundaram, 2013). The local biodiversity of such protected area is being negatively affected



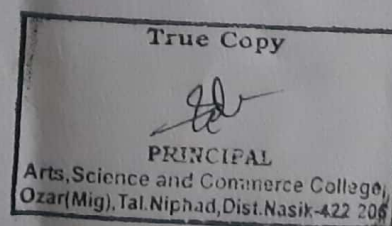
in cultivated lands along with crops. These plants are *Euphorbia rothiana*, *Chrozophora aprostrata*, *Ipomoea sinensis*, *Merremia emarginata*, *Cocculus hirsutus*, *Striga densiflora* etc.

Researchers like Deshmukh et al. (2017) took efforts to record invasive alien species from Bhiwapur tehsil of Nagpur district of Vidarbha. They recorded total 72 Species from the region of which dicotyledons represents by 64 species and monocotyledons represents total 8 species. According to their study, Asteraceae is the dominant family which represents maximum invasive alien species. Some of the invasive alien species recorded are *Acanthospermum hispidum*, *Amaranthus spinosus*, *Bidens pilosa*, *Calotropis gigantea*, *Cleome viscosa*, *Cuscuta reflexa*, *Echinops echinatus*, *Ipomoea nil*, *Lantana camara*, *Ocimum americanum*, *Parthenium hysterophorus*, *Typha angustifolia*, *Xanthium strumarium* etc. The aquatic invasive species like *Eichornia crassipes*, *Ludwigia adscendens* and *Pistia stratiotes* also recorded from various aquatic bodies.

Exotic medicinal plants from west Vidarbha region of Maharashtra have been studied by Rothe (2011). These plants were found grown along dams, canals, roadsides, around villages, on hedges of fields. Exotic plant species which are originated from various regions of world including Paleotropical, tropical America, Mexico, South America, Africa, Eurasia Asia, Afro Asian and Pantropical have been recorded. Exotic plants recorded were *Ipomoea purpurea*, *Phyllanthus asperulatus*, *Dioscorea bulbifera*, *Lantana camara*, *Passiflora foetida*, *Xanthium strumarium*, *Coccinia grandis*, *Medicago sativa*, *Ricinus communis*, *Sesbania sesban* etc.

An enumeration of total 173 invasive plants species of India including Maharashtra is made by Reddy et al. (2008). According to them the most harmful invasive species of Indian land are *Alternanthera philoxeroides*, *Cassia uniflora*, *Chromolaena odorata*, *Eichornia crassipes*, *Lantana camara*, *Parthenium hysterophorus*, *Prosopis juliflora* and many others. Invasive plants in Maharashtra and different regions of India have been introduced from Australia, Western Asia, Europe, Mediterranean Area, Africa, America, Mexico, West Indies and Brazil. Dominant families comprising invasive species are Asteraceae, Pappilionaceae, Convolvulaceae, Ceasalpiniaceae, Solanaceae, Amaranthaceae, Poaceae and Euphorbiaceae (Reddy et al., 2008)).

Khandesh is one of the major regions of Maharashtra state which is situated at Northern site of state. It is also highly dominated by invasive species. Patil (2017) recorded total 120 invasive species from Khandesh region belonging to 39 families. The invasive species enlisted by him are *Acanthospermum hispidum*, *Ageratum conyzoides*, *Blumea spp.*, *Celosia argentea*, *Chrozophora rottleri*, *Emilia sonchifolia*, *Physalis angulata*, *Tribulus terrestris*, *Urena lobata* etc.



by these invasive species (Reddy *et. al*, 2008). Scientists and conservationists can address this issue together (Kannan *et.al*, 2013, Hiremath and Sundaram, 2014, Singh, 2017).

Some invasive species apart from their negative activities plays some important roles as medicine. They have some ethnomedicinal uses including anticancerous, antidiabetic, antimicrobial, antitubercular and other pharmacological uses. An important invasive species, *Lantana camera* is useful to control blood sugar level. Similarly, *Amaranthus spinosus*, *Cassia alata* and *Argemone mexicana* shows antidiabetic properties. *Parthenium hysterophorus*, *Cannabis sativa*, *Euphorbia hirta*, *Solanum nigrum* shows active cytotoxic activity. Some plants like *Ageratum conyzoids* shows anti-tubercular activity. Even contains some compounds like wedelolactone are responsible for its anti-HIV activity. *Cuscuta reflexa*, *Catharanthus pusillus* are also potent against HIV. Many other medicinal uses of various alien medicinal plants have been reported by Sexena and Rao (2018).

India a rich biodiversity country contains highest number of invasive species in the world. Some of the invasive species reported from India are *Lantana camara*, *Parthenium hysterophorus*, *Ageratina adenophora*, *Prosopis juliflora* etc. In Maharashtra, many workers reported various invasive crops from different regions of state.

INVASIVE PLANTS FROM MAHARASHTRA

Many scientists from various regions of Maharashtra recorded invasive species. Rothe and Dhale (2016) took efforts to collect an information about impact of different invasive species on native plant diversity from Vidarbha region of Maharashtra. They have recorded different 233 invasive plant species from aquatic and terrestrial ecosystem. It is noted that, the families like Asteraceae, Cyperaceae, Poaceae, Convolvulaceae, Euphorbiaceae, Tiliaceae, Lamiaceae, Verbenaceae and Pontederiaceae are some of the dominant families from Vidarbha region which are having large number of invasive species. Invasive species are thought to be very harmful for local plants as well as animals.

Other impacts of these species includes disruption of natural ecosystem, alternation of soil chemistry, prevention of growth of native plants, increased soil erosion, allergic reactions, severe skin abrasions and burns, increased risks of wild fires, livestock and wildlife poisoning (Rothe and Dhale, 2016). The plants like *Cenchrus sp.*, *Melanocentris*, *Saccharum spontaneous*, *Setaria verticillata*, *Lophopogon sp.*, *Heteropogon contortus*, *Ocimum americanum* etc. found occupied the barren lands of the region. Field hedges are occupied by the invasive species like *Themeda quadrivalvis*, *Perotis*, *Triumfetta rotundifolia*, *Trichodesma zeylanicum*, *Ipomoea fistula*, *Lantana camera*, *Hyptis suaveolens*, *Anisomeles indica* and many others. Many other invasive species found grown

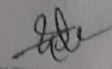
IMPACTS OF INVASIVE SPECIES

Invasive species proved to be harmful in different regions of Maharashtra state and pose threats to biodiversity, environment, livestock, human health etc.

Different invasive species are observed to be responsible for reduction in local plant diversity, out competing of local plant seeds, alterations in plant and animal habitats, compete pollinating agents, Prevention of growth of local plants (Rothe and Dhale, 2016). The plants like *Datura innoxia* and *Datura stramonium* are observed to cause delay in seedling growth of native plants (Deshmukh et.al, 2015, 2017). Majority of invasive species causes serious losses to cultivated lands and grasslands which ultimately troublesome to local farmers and causes loss in crop productivity (Patil, 2017). Many invasive plants like *Parthenium hysterophorus*, *Eupatorium odoratum*, *Hyptis suaveolens* and *Ageratum conyzoides* are reported to outcompete agricultural crops for water and nutrition which reduces crop yield and forage quality (Deshmukh et.al, 2015, Kumar and Prasad, 2014). Western Ghats is a region of luxuriant vegetation of different types of forests passes through Maharashtra is also started its deterioration due to various invasive species. These invasive alien species like *Lantana camara*, *Ageratina adenophora*, *Mikania micrantha*, *Mimosa invisa*, *Bidens pilosa* and *Prosopis juliflora* started degeneration by various ways including, suppression of native vegetation, extinction of some native species, interfering wild life, poisoning of domestic and wild animals, reducing aesthetic value etc. (Muniappan and Viraktamath, 1993).

It has so many harmful impacts on local environment which include, alterations in soil chemistry, changes in soil structure and profile causing soil erosion, interference with forest regeneration, causes forest fires and disturbs physical, chemical and biological factors of an ecosystem (Rothe and Dhale, 2016, Patil, 2017, Lone et.al. 2019). Original native flora and fauna is also affected due to formation of clogs in water bodies by aquatic invasive plants like *Eichornia*. It also disturbs public water supply as well as irrigation system (Deshmukh et.al, 2015)

It is also reported that, different invasive species like *Ageratum conyzoides*, *Parthenium hysterophorus*, *Lantana camara*, *Calotropis procera*, pose many allergic reactions, severe skin abrasions, temporary and permanent blindness and such another harmful effects on animals including human (Deshmukh et.al, 2017). Many invasive species have replaced local grazing vegetation there by cause poisoning in livestock and wildlife (Rothe and Dhale, 2016). Invasive plants like *Parthenium hysterophorus*, *Lantana camara*, *Typha*, *Eichornia crassipes* provides home for many pathogens/flies like *Glossina*

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which causes many diseases like tuberculosis, slipping sickness, allergy etc. in man (Rai and Singh, 2020).

CONCLUSION

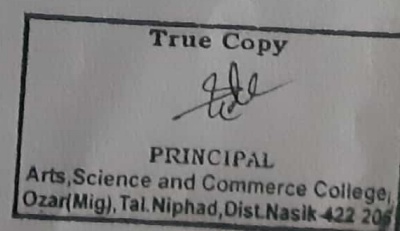
Maharashtra is one of the major agricultural states of India. Many different types of agricultural crops are grown in the state. But, unusual weed growth is becoming a major issue for the farmers. Not only agriculture but grazing grassland areas also highly accumulated by different types of invasive plants like *Lantana camara*, *Prosopis juliflora* and many other plants. Apart from these effects, invasive alien plants start competing local plants, shows allelopathic effects on native seeds and seedlings, causes soil erosion, forest fires. They also have deadlier effects on plants, animals, birds and even human being. The invasive alien species negatively impacts on biodiversity and ecosystem. Protected areas including wildlife sanctuaries and national parks form different parts of India also affected by these invasive species like *Lantana* and *Eupatorium*. Aquatic invasive plants like *Eichornia* and *Typha* also grounds threat to fresh water ecosystem and responsible for water pollution. Now a day, the area of agricultural land as well as grazing grassland is reducing due to urbanization and industrialization. Unlimited and uncontrolled growth of invasive plants is negatively affecting local agricultural crops and local terrestrial and aquatic biodiversity. It is need of time to save native crops as well as biodiversity from such alien invasive plants. Ecologists and conservationists should come forward to tackle this issue.

REFERENCES

- Brooks M.L., C.M. D'Antonio, D.M. Richardson, J.B. Grace, J.E. Keeley, J.M. DiTomaso, R.J. Hobbs, M. Pellant and D. Pyke (2004), Effects of invasive alien plants on fire regimes, *Bioscience*, 54 (7): 677-688.
- Daehler C.C. (2003), Performance Comparisons of Co-Occurring Native and Alien Invasive Plants: Implications for Conservation and Restoration, *Annual Review of Ecology, Evolution, and Systematics*, 34: 183-211.
- Deshmukh U.B., M.B. Shende and O.S. Rathor (2015), Invasive alien angiospermic plants from Chamorshi Tahsil of Gadchiroli district of Maharashtra, India, *International research journal of Biological Sciences*, 4 (12): 40-45.
- Deshmukh U.B., E.S. Reddy and O.S. Rathor (2017), Invasive alien angiosperms diversity from Bhiwapur tehsil, Nagpur district of Vidarbha region (M.S.), India, *International Journal for innovative research in multidisciplinary field*, 3 (6): 434-439.



- Geisen S., F.C.T. Hooven, O. Kostenko, L.B. Snoek, W. H. Putten (2021), Fungal root endophytes influence plants in a species-specific manner that depends on plant's growth stage, *Journal of Ecology*, 109: 1618-1632
- Gioria M., P. Pysek and B. A. Osborne (2018), Timing is everything: does early and late germination favor invasions by herbaceous alien plants? *Journal of Plant Ecology*, 11 (1):4-16.
- Goncalves E, Herrera I, Duarte M, Bustamante RO, Lampo M, et al. (2014), Global Invasion of *Lantana camara*: Has the Climatic Niche Been Conserved across Continents? *Plos One*, 9 (10): 1-10.
- Hiremath (2018), The Case of Exploding *Lantana* and the Lessons It Can Teach Us. *Resonance*, 23 (3): 325-335.
- Hiremath A.J., Sundaram B. (2013) Invasive Plant Species in Indian Protected Areas: Conserving Biodiversity in Cultural Landscapes. In: Foxcroft L., Pyšek P., Richardson D., Genovesi P. (eds) *Plant Invasions in Protected Areas. Invading Nature - Springer Series in Invasion Ecology, vol 7. Springer, Dordrecht*. https://doi.org/10.1007/978-94-007-7750-7_12.
- Jana H. (2015), Integrated *Parthenium* Management (IPM): Need of the hour, *Rashtriya Krishi*, 10 (2): 33-37.
- Kannan R., C.M. Shackleton and R.U. Shaanker (2013), Playing with the forest: invasive alien plants, policy and protected areas in India, *Current Science*, 104 (9): 1159-1165.
- Keeley J.E. (2006), Fire management impacts on invasive plants in the western united states, *Conservation Biology*, 20 (2): 375-384.
- Kumar A. and S. Prasad (2014), Threats of invasive alien plant species, *International Research Journal of Management Science and Technology*, 4 (2): 605-624.
- Lone P.A., J.A. Dar, K. Subashree, D. Raha, P. K. Pandey, T. Ray, P. K. Khare and M.L. Khan (2019), Impact of plant invasion on physical, chemical and biological aspects of ecosystems: A review, 6 (3): 528-544.
- Muniappan R and C.A. Viraktamath (1993), Invasive alien weeds in the Western Ghats, *Current Science*, 64 (8): 555-558.
- Patil D.A. (2017), Invasive alien species in *Khandesh* Region (Maharashtra: India): Diversity, Implications and Measures, *Scholars Academic Journal of Biosciences (SAJB)*, 5 (12): 867-876.
- Rai P. K and J.S. Singh (2020), Invasive alien plant species: Their impact on environment, ecosystem services and human health, *Ecological Indicators*, 111:1-20.
- Reddy C.S., G. Bagyanarayana, K.N. Reddy and V.S. Raju (2008), Invasive Alien flora of India, *National Biological Information Infrastructure*, US Geological Survey, USA.



- Rothe S.P. (2011), Exotic medicinal plants from West Vidarbha region of Maharashtra- III, *Journal of Ecobiotechnology*, 3 (9): 11-13.
- Rothe S.P. and D.A. Dhale (2016), Impact of invasive Plant in changing pattern of native biodiversity from Vidarbha region of Maharashtra state, *International Journal of Research studies in Biosciences*, 4 (8): 19-21.
- Schirmel J., M.Bundschuh, M.H. Entling, I.Kowarik and S.Buchholz (2016), Impacts of invasive plants on resident animals across ecosystems, taxa and feeding types: a global assessment, *Global change biology*, 22: 594-603.
- Sexena S. and P. B. Rao (2018), Invasive alien plants: Valuable elixir with Pharmacological and ethnomedicinal attributes, *International Journal of trends in scientific research and development*, 2 (3):2063-2092.
- Singh A.P. and B. Kumari (2017), Diversity, distribution and used of invasive alien Angiosperms of Rampur District (U.P.), India, *International Journal of applied and pure Science and Agriculture*, 3 (6): 33-37.
- Singh B. (2017), Study of controlling methods of invasive species in India, *International Journal of Recent research aspects*, 4 (3): 10-16.
- Thiebaut G., M. Tarayre and H.R. Perez (2019), Allelopathic effects of native versus invasive plants on native invader, *Frontiers in Plant Science*, 10 (854):1-10.

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Studies on composition and components of aerospora of ascomycetes over capsicum annum l. In open field cultivation during kharif season

RK Patil

Department of Botany, Arts, Commerce and Science College, Ozar, Nashik, Maharashtra, India

Abstract

An extramural survey of aerospora of *Ascomycetes* was conducted over the *Capsicum* field (*Capsicum annum L.*) at Nashik District on open field cultivation during kharif season of June to October. The data of airborne microbial components was collected with the help of continuous Tilak Air Sampler (Tilak and Kulkarni, 1970). In order to access, the disease incidence to the crop by Ascospore types. Over a period of survey, there were 17 spore types recorded from this group. Their high concentration was found in air under weather conditions in favour to sporogenesis and release into atmosphere. The abundance of many Ascospores types in the aerospora revealed the presence of copious Ascomycotina members in parasitic and sporphytic forms in and around the fields. *Bombardia*, *Cucurbitaria*, *Didymosphaeria*, *Hypoxydon*, *Hysterium*, *Lophiostoma*, *Melanospora*, *Oidiopsis*, *Parodiella*, *Pleospora*, *Sordaria* and *Sporormia* was the common Ascospores types noted throughout the period of investigation.

Keywords: aerospora, *Capsicum annum*, ascomycetes

Introduction

Aerobiology is a branch of Biology, which deals with the study of various aspects like transmission, dispersion, deposition of airborne bioparticles. *Capsicum annum L.* belong to the family Solanaceae is the inseparable component of spice. Considering commercial value in mind, *Capsicum* is cultivated as economically valuable crop in India. *Capsicum* plant is easily affected by many fungal diseases. The large number of Ascomycotina members actively released their spores in air for further transport. Usually, in fungi the liberation of spores is necessarily depends on turbidity of the cells. The precipitation affects release of aerospora. This effect may be immediate or delayed. The spores of Ascomycotina occurred in the environment when the conditions are favorable for their Formations and release. The Ascomycotina spores occurred in environment under favourable conditions supporting their formation and release. Most of the time Ascospores occurred during rainy season and their concentration was found fluctuating in accordance with amount of rainfall and varying vegetation. The present paper deals with the studies on composition and components of aerospora of ascomycetes over *Capsicum annum L.* in open field cultivation.

Materials and Methods

The continuous sampling in the *Capsicum* open field (extramural) during kharif season of June to October was done using Tilak air sampler. The working of the Tilak air sampler is according to the principal of suction and impaction. One can collect continuous volumetric data i.e. number of spores/m³ of air with the help of these equipment. During present investigations air sampling over was done with the help of Tilak air sampler. The sampler was mounted at the centre of *Capsicum* field, one meter above the ground level. Slide preparation, scanning and detailed calculations were obtained by using same method

described earlier (Tilak and Kulkarni, 1970) Apart from Tilak air sampler the data of air catches was also collected by petriplate sampling. The petriplate sampling was carried out for confirmation of fungal genera trapped by Tilak air sampler wherever needed.

Results and Discussion

The Ascomycotina spores occurred in environment under favourable conditions supporting their formation and release. Most of the time Ascospores occurred during rainy season and their concentration was found fluctuating in accordance with amount of rainfall and varying vegetation. There were 17 spore types (Table 1) found during kharif season from Ascomycotina contributed 6.04% of total aerospora. The abundance of many Ascospores types in the aerospora revealed the presence of copious Ascomycotina members in parasitic and sporphytic forms in and around the fields. *Bombardia*, *Cucurbitaria*, *Didymosphaeria*, *Hypoxydon*, *Hysterium*, *Lophiostoma*, *Melanospora*, *Oidiopsis*, *Parodiella*, *Pleospora*, *Sordaria* and *Sporormia* was the common Ascospores types noted throughout the period of investigation.

Ingold (1965) reported effect of dewfall on occurrence of release of Ascospores. Similarly, the close relation between release of Ascospores and rainfall has been proved. The number of Ascospores increases during wet period while it decreases during dry period. During kharif season of present investigation ascomycotina members shows *Bombardia* exhibited 0.14%, *Chaetomium* shows 0.22%, *Claviceps* contributed 0.28%, *Cucurbitaria* contributed 0.31%, *Hypoxydon* contributed 0.14%, *Lophiostoma* contributed 0.21%, *Oidiopsis* contributed 3.07%, *Pleospora* contributed 0.15%, *Sordaria* contributed 0.35% and *Sporormia* contributed 0.33%. The spore types such as *Chaetomium*, *Hysterium*, *Massarina* and *Sporormia* were observed even during the dry period. The present findings clearly revealed the importance and impact of rainfall, temperature and

relative humidity on the spore release of some Ascomycotin members. The Similar results have also been reported before by Ingold (1965), Patil (1983), Patil (1985), Jayswal (1993), Naik (1995), Pawar (1998) and Merideth (1962 and 1963). These reports stated remarkable influence of temperature and rainfall on the development of reproductive structure and also acts as determining factors in long term periodic fluctuation like annual cycle of airborne catches. In the present studies Ascomycotina represented by Chaetomium, Didymosphaeria, Hypoxylon and Sordaria. The highest concentration of Ascospore was found positively influenced by high relative humidity and low temperature to build its concentration in the air.

Table 1: Seasonwise concentration of Ascomycetes spore types from the total airspora of kharif season of June to October.

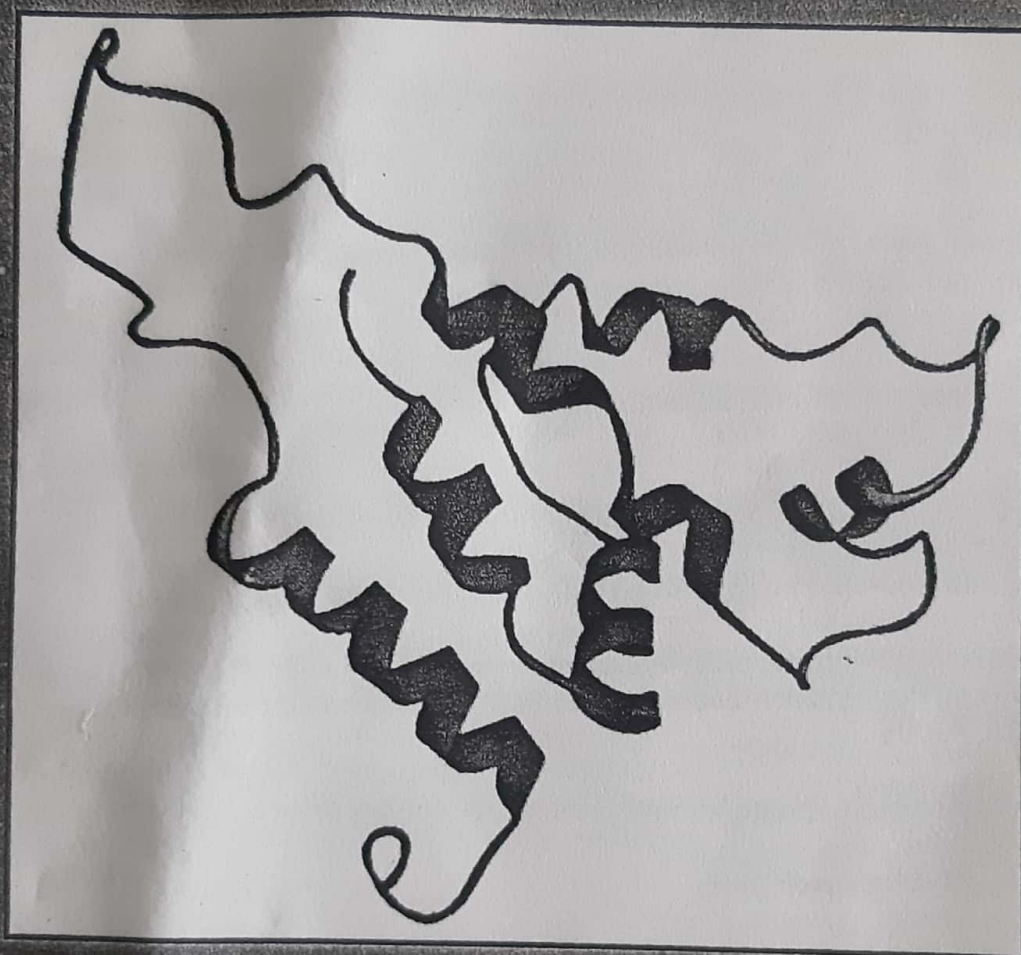
Sr. No	Name	Seasonal concentration per M3 of air
1	Bombardia Fr.	1904
2	Chaetomium Kunz. Ex. Fr.	3066
3	Claviceps Tul.	3892
4	Cucurbitaria Gray.ex Grev.	4242
5	Didymosphaeria Fuck.	602
6	Hypoxylon Bull.Ex.Fr.	1904
7	Hysterium.Tode Ex.Fr.	840
8	Leptosphaeria cesandde	2618
9	Lophiostoma Ces de Not.	2842
10	Massarina Sacc.	2226
11	Melanospora Corda.	1778
12	Meliola Fr.	1876
13	Oidiopsis Sawada.	42406
14	Parodiella. (Speg) Theiss and syd.	1960
15	Pleospora. Rabh.	2072
16	Sordaria.Ces and de. Not	4802
17	Sporormia Ces and de. Not	4508

References

1. Aerobiology (Ed., S.T. Tilak). Today and Tomorrow Printers and Publishers, New Delhi,67-78.
2. Gregory P.H. 1952 Fungus pores. Trans. Brit. Mycol. Soc,35,1-18.
3. Jayswal BO. 1993 Atmospheric incidence of microbial population at Dhule and its relevance to environmental parameters. Ph.D. Thesis, Marathwada University, Aurangabad.
4. Ingold CT. Fungal spores, their liberation and dispersal Oxford,1971,302.
5. Meredith 1962 Some components of air spora in Jamaican Banana Plantation. Ann. Appl. Biol.50: 577-594
6. Patil CR. Aerobiological studied at Aurangabad. Ph. D. Thesis, Marathwada University, Aurangabad,1983.
7. Patil BY. Aerobiological studied at Aurangabad. Ph. D. Thesis, Marathwada University, Aurangabad,1985.
8. Rajput JC, Parulekar. Capsicum, A Hand Book of Vegetable Y.R. Science and Technology-Production, Composition, storage and Processing, Marcel Dekker, New York,1998,203.
9. Tilak ST, Kulkarni RL. A new air sampler, Experientia,1970:26:443-444.

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**DIVERSITY OF FRESHWATER FUNGI FROM AHMEDNAGAR DISTRICT (M.S., INDIA):
SUBMERGED AQUATIC FUNGI-I:**

D. S. Borade, N. S. Pawar and B. D. Borse

M. V. P. Samaj's A. S. & C. college, Ozar (Mig), Nashik (M.S.), India.

ABSTRACT

Ten fresh water fungi have been described, These were found in submerged woody debris and leaf litter. Their systematic account, habitat and distribution in India has been given.

Key words: Fresh water, Hyphomycetes, Submerged wood

Introduction

The submerged-aquatic Hyphomycetes (Ingold, 1975) represent a heterogeneous assemblage of fungi growing on submerged decaying plant materials. Most of the species are found on wood litter blocked in fast-flowing streams or babbling brooks. These lignicolous, or to a lesser extent foliicolous Hyphomycetes are nearly all dematiaceous and produce relatively thick-walled conidiophores and / or conidia.

The conidiophores are distinctly macronematous, frequently in the form of long stipes; however, they may be solitary or synnematosus. The conidiogenous loci may be denticulate, cicatrized, and trepate or phialidic.

Although some species may sporulate under submerged conditions, a vast number sporulate when the substrate are no longer under water. Incubation of such wood or leaf litter substrates in moist chambers yields a great number of different species. The conidia are capable of air dispersal or dispersed by some other mechanisms (Goh and Hyde, 1996).

Materials and Methods:

Submerged woody debris and leaf litter were collected from various streams, rivers and lakes from Ahmednagar district and placed in polythene bags. The samples were brought to the laboratory. Collections

contaminated by sediments or fouling organisms were washed with tap water.

The specimens were observed for sporulating structures (conidiophores and conidia). After initial observations, samples were placed in plastic boxes containing layer of blotting paper or sterile sand moistened with sterile freshwater for weeks or months and examined periodically for the presence of fungal structures and remoistened when necessary. A few Naphthalene balls were placed in suitable container inside of plastic box, to kill any insect in the wood. Semi permanent slide of fungi isolated were made for further observations. The slides were made semi-permanent by using double cover glass method (Volkman-Kohlmeyer and Kohlmeyer, 1996).

Systematic account:

1) *Aquaphila albicans* Goh, K.D. Hyde & W.H. Ho *Mycol. Res.*, 102: 587-592 (1998).

Conidia: 45-80 x 8-9 μ m, holoblastic, solitary, borne acrogenously on conidiogenous denticles, becoming lateral after proliferation of the conidiophore, hyaline or very pale yellowish, predominantly fusoid to sickle-shaped, sometimes sigmoid, very rarely straight and obclavate, thin-walled, smooth, closely 6-14 euseptate, not constricted at the septa, heavily guttulate, conically rounded at both ends, slightly broadened at the base, basal cell obconical but not pedicellate. Conidial

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secession is schizolytic.

Habitat: On submerged wood, Godavari river (at Shrirampur), 09 March 2014, leg. D.S. Borade.

Distribution in India: Maharashtra (see Borse et al. 2016, 2017).

2) *Beltrania rhombica* O. Penz.

Nuovo G. Bot. Ital., 14: 72-75 (1882).

Conidia: solitary, or forming clusters at the fertile tip of the conidiophore, borne directly on denticles on the conidiophore tip or on separating cell on denticles; separating cell hyaline, 1-celled, mostly oval, measuring 9-12 x 4-5 μ m; conidia biconic, pale brown, with one (pseudo-) septum, smooth, 25-26 x 8-10 μ m, with a hyaline, slender, pointed apical rostrum measuring 6-7 x 0.8-1 μ m.

Habitat: On submerged leaves, Mohata river (at Pathrdi), 31 August 2014, leg. D.S. Borade.

Distribution in India: Maharashtra (see Borse et al. 2016, 2017).

3) *Brachydesmiella caudata* G.V. Rao & de Hoog *Studies in Mycology*, 28: 5 (1986).

Conidia: solitary, limoniform, with 2 thick, black septa; apical cell subhyaline, verrucose at the middle, acicular, 19-23 μ m long, 4 μ m wide at the base; medium cell smooth and rather thick-walled, evenly dark reddish brown, ellipsoidal, 25-35 x 15-23 μ m, basal cell sub-hyaline to pale brown, verruculose, cylindrical, slightly constricted near the middle, 11-19 μ m long and up to 3.8 μ m wide, truncate at the base, scar with marked peripheral thickening and pigmentation.

Habitat: On submerged wood, Godavari river (at Shrirampur), 27 February 2014, leg. D.S. Borade.

Distribution: Maharashtra (Borse et al. 2016, 2017).

4) *Camposporium antennatum* Harkn. *Bull. California Acad. Sci.*, 1: 37-38 (1951).

Conidia: solitary, acropleurogenous, smooth, 4-15 -septate, pale brown, end cells paler, 45-75 x 7-9 μ m, cylindrical, obconically truncate at the base, apex rounded or slightly attenuate and bears 1-3 divergent, non-septate, hyaline, up to 40 μ m long appendages.

Habitat: On submerged wood, Godavari river (at Shrirampur), 27 February 2014, leg. D.S. Borade.

Distribution in India: Karnataka and Madhya Pradesh (see Borse et al. 2016, 2017).

5) *Camposporium pellucidum* (Grove) S. Hughes *Mycol. Pap.*, 36: 9 (1951).

Conidia: cylindrical, or more usually cylindric-fusoid, brown, 78-140 μ m long, 7.5-12 μ m wide, up to 16-septate, base truncate 3-4 μ m wide, apex rounded or subulately elongated in to a long filiform, septate appendage of 30-200 μ m long and ca. 2-3 μ m wide., often slightly curved.

Habitat: On submerged wood, Mula river (at Akola), 27 October 2013, leg. D.S. Borade.

Distribution in India: Andhra Pradesh, Maharashtra, Karnataka, and Uttarakhand (see Borse et al. 2016, 2017).

6) *Ceratosporium indica* V. Rao & Deo Rao *Curr. Sci.*, 39: 141-142 (1970);

Conidia: solitary, staurosporus, consist of 2-3 (-4), brown to blackish-brown. *Arms:* blackish brown at base gradually turn paler towards apex becoming subhyaline to hyaline, 6-20-septate, not constricted at the septa, basal cells thick-walled, arms adpressed or loosely overlap each other at base and diverge in upper region, straight or slightly flexuous, 150-375 μ m long, 3.5-7 μ m wide at the base and upto 3.5 μ m at apex. The conidia may or may not have basal cell depending on their mode of development.

Habitat: On submerged wood, Mula river (at Akola), 27 October 2013, leg. D.S. Borade.

Distribution in India: Andhra Pradesh and Maharashtra (see Borse et al. 2016, 2017).

7) *Dendrosporium lobatum* Plakidas & Edgerton ex J.L. Crane

Mycologia, 28: 84 (1936), In: Crane, *Trans. Br. Mycol. Soc.*, 58: 423 (1972).

Conidia: hyaline, flattened to slightly concave or convex, somewhat triangular, deeply constricted, mostly three-lobed on each side, 7.7-15.4 x 3.8-6.2 μ m (Crane, 1972), 3.4-4.4 x 6.8-10.2 x 10.2-15.3 μ m, average about 3.9 x 7.8 x 12.2 μ m (Plakidas and Edgerton, 1936), the basal lobe being the largest, 1-septate above the basal lobes, pointed at the apex, the two cells being of unequal length, pedicellate, one to several on each conidiophore.

Habitat: On submerged wood, Mula river (at Sangamner), 28 September 2014, leg. D.S. Borade.

Distribution in India: Karnataka, Madhya Pradesh, and Maharashtra (see Borse et al. 2016, 2017).

8) *Dicranidion gracile* Matsush.

Microfungi of the Solomon Islands and Papua-New Guinea, p. 24 (1971).

Conidia: bilobed forked, hyaline, basal part 1-2-septate, obovate, 8-14 μ m long, at the base of 0.8-1 μ m wide, apex in the place of lobes 4-5 μ m wide; lobes 16-25 μ m long, near the base 3.5-4 μ m wide, slightly reduced toward the apex, apex rounded, 3-4-septate, lobes diverging at an angle of 30°-45°, lobes sometimes parallel.

Habitat: On submerged wood, Sina river (at Jamkhed), 25 August 2013, leg. D.S. Borade.

Distribution in India: Karnataka, Gujarat, and Maharashtra (see Borse et al. 2016, 2017).

9) *Diplocladiella appendiculata* Nawawi

Mycotaxon, 27: 298 (1987).

Conidia: holoblastic, produce singly from successive apices, often remaining attached to the lateral scars, y-shaped, 8-

celled, distoseptate, fuscous to grey-brown, consisting of a main axis with 2 divergent arms, bilaterally symmetrical, with the two middle oblique septa separating the arms. The main axis is 2-celled, 26-31 μ m long (measured from the truncate base to the curvature of the arms). The basal cell is lighter in colour measuring 6-7 μ m long x 2-3 μ m wide. The upper cell is wider and longer and measures 6-9 μ m wide at the top. The arms (excluding the appendages) are 26-33 μ m long x 8-10 μ m wide at the base, narrowing to 2 μ m at the lighter coloured apical cell which forks to give rise to 2 hyaline non-septate appendages 20-33 μ m long x 1 μ m wide. These appendages curved out and lie in different planes to the arms. Conidia are released by a break in the basal septum.

Habitat: On submerged wood, Mula river (at Mula Dam, Rahuri), 26 February 2012, leg. D.S. Borade.

Distribution in India: Uttarakhand and Maharashtra (see Borse et al. 2016, 2017).

10) *Diplocladiella scalaroides* G. Arnaud ex M.B. Ellis *Bull. Trimest. Soc. Mycol. France*, 69: 295 (1954).

Conidia: Y- or V-shaped, light-brown, 8-celled; consisting of a 2-celled, 30-40 μ m long main axis and 2 divergent, 25-54 x 10-15 μ m, bilaterally symmetrical appendages, each with 2 oblique septa and with 2 terminal, 35-90 x 1.5-2.5 μ m, hyaline, non-septate projections. The basal cell of the axis is 7-11 x 3-4.5 μ m and lighter in colour.

Habitat: On submerged wood, Mula river (at Mula dam Rahuri), 26 February 2012, leg. D.S. Borade.

Distribution in India: Andhra Pradesh, Maharashtra, and Karnataka (see Borse et al. 2016, 2017).

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References:

- Arnaud, G. (1954) *Bull. Soc. Mycol. France*, **69**: 265.
- Borse, B.D., Borse, K.N., Patil, S.Y., Pawara, C.M., Nemade, L.C and Patil, V.R. (2016) "*Freshwater Higher Fungi of India*", Lulu Pub., USA and Luxmi Book Pub., Solapur, Maharashtra, India, pp- 1.
- Borse, B.D., Borse, K.N., Chaudhary, S.A., Patil, V.R., Patil, S.Y., Gosavi, S.A. and D.S. Borade (2017) "*Freshwater and Marine Fungi of India*", LAP Lambert Academic Publishing, Germany, pp- 1.
- Crane, J.L. (1972) *Trans. Br. Mycol. Soc.*, **58**: 423.
- Goh, T.K. and Hyde, K.D. (1996). *J. Industrial Microbiol.*, **17**: 328.
- Goh, T.K., Hyde, K.D. and Ho, W.H. (1998). *Mycol. Res.*, **102**: 587.
- Hughes, S.J. (1951) *Mycol. Pap.*, **36**: 1.
- Ingold, C.T. (1975) "*An illustrated guide to Aquatic and Water-borne Hyphomycetes (Fungi Imperfect) with notes on their Biology*". Freshwater Biol. Asso. Sci, Publications, No. 30, pp. 1.
- Matsushima, T. (1971) "*Microfungi of the Solomon Islands and Papua-New Guinea*". Published by author, Kobe, pp. 78.
- Nawawi, A (1987). *Mycotaxon*, **26**: 297.
- Plakidas, A.G. and Edgerton, C.W. (1936). *Mycologia*, **28**: 82.
- Rao, V. and de Hoog, G.S. (1986) *Studies in Mycol.*, **28**: 1.
- Rao, V. & Rao, D. (1970) *Curr. Sci.*, **39**: 141.

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DIVERSITY OF FRESHWATER FUNGI FROM AHMEDNAGAR DISTRICT (M.S., INDIA):II.
INGOLDIAN GROUP.

D. S. Borade, N. S. Pawar* and B. D. Borse**

M. V. P. Samaj's A. S. & C. college, Ozar (Mig), Nashik (M.S.), India.

*SSVPS's Arts, Commerce and Science College Shindkheda, Dist. Dhule

** U. P. Arts and Science College, Dahiwal, Dhule (M.S., India).

ABSTRACT

Present paper deals with 12 species of freshwater Hyphomycetes (Ingoldian fungi) encountered in foam samples, which were collected from Ahmednagar district (M.S., India). These include viz. *Dendrospora erecta*, *Flabellospora acuminata*, *Flabellospora multiradiata*, *Flabellospora verticillata*, *Flagellospora curvula*, *Isthmotricladia gombakiensis*, *Isthmotricladia laeensis*, *Jaculispora submersa*, *Lateriramulosa uni-inflata*, *Lunullospora curvula*, *Phalangispora bharathensis*, and *Phalangispora nawawii*. The data provide information on the distribution of these fungi in India along with description.

Key words: Freshwater, Hyphomycetes, Ingoldian fungi, Foam samples

Introduction:

Aquatic Hyphomycetes (also called Ingoldian Fungi) commonly occur on submerged decaying leaves in fast flowing streams sporulating under water (Ingold, 1975). They are characterized by having well developed, branched, septate, mycelia with usually thin-walled hyaline asexual spores called conidia which are either stauroform, scolecoform and helicoform in shape. About 290 species of freshwater Hyphomycetes have been recorded from all over the world (Shearer et al. 2007). In India, research work on this group of fungi have been compiled by Sridhar et al. (1992) and Borse et al. (2016, 2017). Present communication deals with aquatic Hyphomycetes from Ahmednagar District (M.S.)

Materials and Methods:

In general, the foam constitutes a natural trap for the conidia of Ingoldian fungi. Hence, foam samples were collected and placed in clean wide mouthed plastic bottles

and kept for 24 hours. It was preserved by adding FAA up to the concentration of 5% foam solution. The samples were brought in to the laboratory and scanned under microscope for the presence of conidia.

Taxonomic account:

1) *Dendrospora erecta* Ingold, *Trans. Br. Mycol. Soc.*, 26: 106 (1943).

Conidia: hyaline, septate, branched; main axis 150-300 μ m long, 4-5 μ m broad, main axis continuous with the conidiophore; secondary branches 6-12 in number, 50-180 μ m long, 4-5 μ m broad, constricted at the base to 2 μ m broad, arising (usually in pairs or in whorls of three) from the lower part of the main axis; tertiary branches, which may arise from the lowermost secondary branches, 10-90 μ m long, 4-5 μ m broad, constricted at the base to 2 μ m broad.

Habitat: Conidia in foam samples, Pravara river (at Akola), 16 December 2012, leg. D.S. Borade.

Distribution in India: Karnataka, Andhra Pradesh, Gujarat (Borse et al. 2016, 2017).

2) *Flabellospora acuminata* Descals & J. Webster, *Trans. Br. Mycol. Soc.*, 78: 411 (1982).

Conidia: solitary, staurosporous, main body clavate, apex capitate, 4-6 μm diam, base pedunculate, 5-10 μm long, branches 4-7, budding out before release, synchronous, 75-120 x 7-12 μm , one branch apical, the rest radiating slightly retrorsely, straight, fusiform, apex greatly extended, cells 3-10 in number.

Habitat: Conidia in foam samples, Mula river (at Rahuri), 27 October 2013, leg. D.S. Borade.

Distribution in India: Uttarakhand, Maharashtra, Madhya Pradesh (Borse et al. 2016, 2107).

3) *Flabellospora multiradiata* Nawawi, *Trans. Br. Mycol. Soc.*, 66: 543 (1976).

Conidia: hyaline, multi-radiate, main axis 9-13 μm long x 2-3 μm at the base, expanding above to form a globose structure 4-6.5 μm diam., from around this, which is usually demarcated from the narrow stalk by a septum, 12-25 μm long, slender, fusiform arms arise, each arm is markedly constricted at its point of origin and thereafter broadens to 1.5-2 μm at the widest point and finally tapers to 1.5-2 μm at the apex which is acute to acuminate and lacks septation in the parts 12-20 μm from the tip, the arms are 90-140 μm long, 10-18 septate and slightly constricted at the septa especially along the basal half, conidia in foam samples usually have a blob of mucilaginous material at the tip of each arm.

Habitat: Conidia in foam samples, Kukadi river (at Parner), 31 August 2013, D.S. Borade.

Distribution in India: Karnataka, Kerala, Maharashtra, Madhya Pradesh (Borse et al. 2016, 2107).

4) *Flabellospora verticillata* Alasoadura, *Nova Hedwigia*, 15: 419 (1968).

Conidia: consists of a main axis 15-35 μm long, 2-3 μm wide with a terminal spherical or subspherical portion 2-3.5 μm across; and a variable number of arms, each 75-125 μm long, about 1.5 μm at the attachment constriction, 4-6 μm at the widest part and tapering to about 2 μm at the tip. The arms arise from the dome-shaped apex but also from round the side of the apical cell.

Habitat: Conidia in foam samples, Pravara river (Sangamner), 29 September 2013, leg. D.S. Borade.

Distribution in India: Maharashtra, Uttarakhand, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Madhya Pradesh (Borse et al. 2016, 2017).

5) *Flagellospora curvula* Ingold, *Trans. Br. Mycol. Soc.*, 25: 404 (1942).

Conidia: curved or sigmoid, hyaline, unicellular, 100-150 μm long, 2 μm broad in middle region tapering to 1.5 μm towards its ends.

Habitat: On submerged leaves and conidia in foam samples, Pravara river (at Sangamner), 29 September 2013, leg. D.S. Borade.

Distribution in India: Karnataka, Kerala, Madhya Pradesh, Maharashtra (see Borse et al. 2016, 2017).

6) *Isthmotricladia gombakiensis* Nawawi, *Trans. Br. Mycol. Soc.*, 64: 243 (1975).

Conidia: 4-6-radiate consisting of a main axis, 20-27 μm long, 2-3 μm wide at the top, tapering to 1.5-2 μm at the base. The arms are fusiform, 74-100 μm long, 4-6 μm at the widest point, 10-15 septate, tapering gradually to 1-1.5 μm at the apex, and slightly constricted at the septa. The arms are connected to the axis by a narrow isthmus, 2-4.5 μm long, and 1-1.5 μm wide.

Habitat: Conidia in foam samples, Pravara river (Rahuri) 29 September 2013, leg. D.S. Borade.

Distribution in India: Karnataka, Andhra Pradesh, Maharashtra, Madhya Pradesh (Borse et al. 2016, 2017).

7) *Isthmotricladia laeensis* Matsushima, *Bull. Nat. Sci. Mus. Tokyo*, 14: 479 (1971a).

Conidia: tetra-radiate consisting of a main axis 0-1-septate 15-19 μm long, 1.8-2 μm wide at the top, tapering at the base. The 3-4 arms are cylindrical, 40-52 x 2.4-3.2 μm , 3-septate. The arms are connected to the axis by a narrow isthmus.

Habitat: Conidia in foam samples, Pravara river (Newasa), 29 September 2013, leg. D.S. Borade.

Distribution in India: Karnataka,

Maharashtra (Borse et al. 2016, 2017).

8) *Jaculispora submersa* H.J. Huds. & Ingold, *Trans. Br. Mycol. Soc.*, 43: 475 (1960).

Conidia: hyaline, unicellular, main axis straight, 35-55 µm long with truncate base, 3-3.5 µm wide at the base increasing to 5-7 µm wide at the distance of about 25-35 µm from the base, apex ending in a fine point, making the conidium appear dart-shaped except for three lateral appendages. *Appendages*: three, hair-like, equally spaced around the circumference, arise at a level just beyond half way between the base and apex, 10-24 µm long and 0.5-1 µm wide.

Habitat: Conidia in foam samples Godavari river (at Shevagaon), 29 September 2013, leg. D.S. Borade.

Distribution in India: Andhra Pradesh, Uttarakhand, Karnataka, (Borse et al. 2016, 2017).

9) *Lateriramulosa uni-inflata* Matsushima, "Microfungi of the Solomon Islands and Papua-New Guinea (Osaka)", pp. 34 (1971b).

Conidia: hyaline, 20-23 µm in diam. They appear as small triangles, which consist of one main axis, 6.5-9 x 1.6-2 µm, and three branches measuring 7.5-10 x 3.5-4 µm; the lower two branches are composed of a swollen basal part and a spike-like seta. The upper arm has only one half of its base swollen.

Habitat: Conidia in foam samples, Sina river (Ahemednagar), 28 December 2014, leg. D.S. Borade.

Distribution in India: Maharashtra, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh (Borse et al. 2016, 2017).

10) *Lunulospora curvula* Ingold, *Trans. Br. Mycol. Soc.*, 25: 409 (1942).

Conidia: stalk cell 3-5 µm long, 1.5 µm broad, each seated on a stalk cell. unicellular, sigmoid or crescent-shaped, 70-90 µm long, 4-5 µm broad in its middle region, tapering to 1.5 µm at its ends, with a row of conspicuous vacuoles.

Habitat: On submerged leaves and conidia in foam samples, Mula river (at Parner), 10

March 2013, leg. D.S. Borade.

Distribution in India: Tamil Nadu, Uttarakhand, Karnataka, Kerala, Andhra Pradesh, Madhya Pradesh, Maharashtra.

11) *Phalangispora bharathensis* T.S.K. Prasad & Bhat, *Mycotaxon*, 83: 405 (2002).

Conidial chains: hyaline, smooth, aseptate, in 2-3-branched chains of 75-85 µm long, 2.5-4 µm wide, connected by narrow isthmus, uniseriate below, bi- to triseriate above, with branches arising from the third and fourth cells of the main axis, of two types: apical and basal cells conical to obclavate, 7-9 x 2.5-3.5 µm; intermediate cells cylindrical with truncate ends, 8-10 x 2.5-4 µm.

Habitat: Conidia in foam samples, Sina river (Jamkhed), 25 August 2014, leg. D.S. Borade.

Disribution in India: Maharashtra (see Borse et al. 2016, 2017).

12) *Phalangispora nawawii* Kuthub., *Trans. Br. Mycol. Soc.*, 89: 419 (1987).

Conidial chains: consists of 13-19 cells connected by narrow isthmus, with main axis and 2-3 laterals, 6-8 cells in main axis, 2-6 cells in lateral branches, 65-90 µm from base to apex, lateral branches 23-70 µm, basal cells conical and 8-9 x up to 2 µm, apical cells conical and 8-12 x up to 2 µm, cells along conical chain cylindrical and 10-12 x 1.5-2 µm, light brown.

Habitat: Conidia in foam samples, Sina river (Jamkhed), 25 August 2014, leg. D.S. Borade.

Distribution in India: Karnataka, Uttarakhand, Madhya Pradesh, Maharashtra (Borse et al. 2016, 2017).

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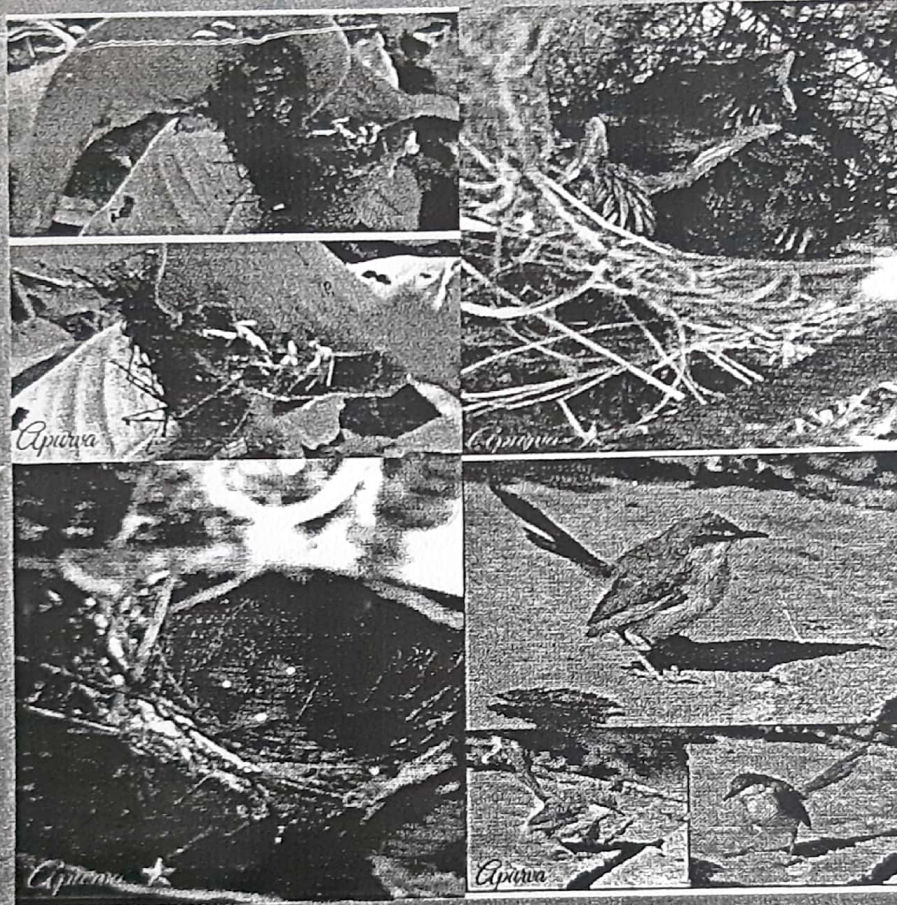
Science College, Dahiwal, Dhule (M.S., India).

References:

- Borse, B.D., Borse, K.N., Patil, S.Y., Pawara, C.M., Nemade, L.C and Patil, V.R. (2016) "*Freshwater Higher Fungi of India*", Lulu Pub., USA and Luxmi Book Pub., Solapur, Maharashtra, India, pp- 1-636.
- Borse, B.D., Borse, K.N., Chaudhary, S.A., Patil, V.R., Patil, S.Y., Gosavi, S.A. and D.S. Borade (2017) "*Freshwater and Marine Fungi of India*", LAP Lambert Academic Publishing, Germany, pp- 1-163.
- Ingold, C.T. (1975) *An illustrated guide to Aquatic and Water-borne Hyphomycetes (Fungi Imperfect) with notes on their Biology*. Freshwater Biol. Asso. Sci, Publications, No. 30, pp. 1-96.
- Shearer, C.A., Descals, E, Volkamann-Kohlmeyer, B., Kohlmeyer, J., and Marvanova, L. (2007) *Biodiversity and Conservation*, **16**: 49.
- Sridhar, K.R., Chandrashekar, K.R. and Kaveriappa, K.M. (1992) Research on the Indian Subcontinent. In: "*The Ecology of Aquatic Hyphomycetes*" (ed. Balocher, F.), Springer-Verlag, Berlin, pp. 182-211.

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DIVERSITY OF FRESHWATER FUNGI FROM AHMEDNAGAR DISTRICT (M.S., INDIA): III.
INGOLDIAN GROUP.

D. S. Borade, N. S. Pawar*, B. D. Borse**

M. V. P. Samaj's A. S. & C. college, Ozar (Mig), Nashik (M.S.), India.

*SSVPS's Arts, Commerce and Science College Shindkheda, Dist. Dhule

** U. P. Arts and Science College, Dahiwal, Dhule (M.S., India).

ABSTRACT

Present paper is an extension of earlier communication (Borade et al., 2020) which deals with ten species of freshwater Hyphomycetes (Ingoldian fungi) encountered in foam samples collected from Ahmednagar district (M.S., India). These include viz., *Tetracladium marchalianum*, *Tricladium aciculum*, *Tricladium angulatum*, *Tricladium chaetocladium*, *Tricladium minutum*, *Tricladium splendens*, *Triscelophorus acuminatus*, *Triscelophorus konajensis*, *Triscelophorus monosporus*, and *Varicosporium elodeae*. The data provide information on the distribution of these fungi in India, along with description.

Key words: Freshwater, Hyphomycetes, Ingoldian fungi, Foam samples

Taxonomic account:

1) *Tetracladium marchalianum* de Wild.,
Ann. Soc. Belge Microsc., 17: 39 (1893).

Conidia: consisting of four divergent branches 20-40 µm long, 2-3 µm broad and of two more or less spherical knobs, 3-5 µm broad, one situated just above the point from which the four branches diverge, the other a short distance from this point on the upper side of one of the branches.

Habitat: Conidia in foam samples, Sina river (Karjat), 25 August 2014, leg. D.S. Borade.

Distribution in India: Uttarakhand, Maharashtra, Karnataka, Andhra Pradesh, and Madhya Pradesh (Borse et al. 2016, 2017).

2) *Tricladium aciculam* Nawawi
Trans. Br. Mycol. Soc., 85: 177 (1985).

Conidia: staurosporous and hyaline. Main axis smooth, curved, 75-90 x 4-5 µm at the widest point, narrowing gradually to a point at the apex, base truncate after release, becoming conical and finally acute by growth, 4 to 8-

septate, septa indistinct in fresh conidia. Arms 1-(2) in number, arising about the curved portion in succession, 7-12 µm apart, diverging at narrow angles in different planes, straight with a rounded base, narrowing gradually to the apex, markedly constricted at their points of origin. First arm usually arises from the second or third cell of the main axis, 38-46 x 5-6 µm at the widest point, 3-5-septate; second arm usually arises from the third or fourth cell, occasionally from the fifth cell, 34-40 µm long, 3-4-septate.

Habitat: Conidia in foam samples, Godavari river (Newasa sangam), 05 February 2012, leg. D.S. Borade.

Distribution in India: Uttarakhand and Maharashtra (Borse et al. 2016, 2017).

3) *Tricladium angulatum* Ingold
Trans. Br. Mycol. Soc., 25: 393 (1942).

Conidia: hyaline, septate, branched, consisting of a main axis 60-120 µm long, 4 µm broad at widest part, 1-4-septate, and of two lateral branches each 30-70 µm long, 3-4 µm broad at the base tapering to 1.5-2 µm at the

apex, not constricted where each joins the main axis of the spore. Main axis of the spore usually bent to an obtuse angle at the point of origin of each lateral. Distance between the two points of origin of the two lateral branches 10-15 μm .

Habitat: Conidia in foam samples, Godavari river (Newasa sangam), 05 February 2012, leg. D.S. Borade.

Distribution in India: Uttarakhand, Maharashtra, and Karnataka (Borse et al. 2016, 2017).

4) *Tricladium chaetocladium* Ingold
Trans. Br. Mycol. Soc., 63: 624 (1974).

Conidia: hyaline, branched, the lower lateral arising 50-70 μm from the base and apparently causing a slight deflection in the direction of growth of the main axis, a further deflection occurring when the second lateral arises 15-20 μm above the first. Main axis is 150-200 μm long, 3-4 μm wide in the region between the two laterals. These laterals are 70-120 μm long and not constricted at their region of origin. They are somewhat narrower than the main axis where they arise but later it tapers to a width of about 2 μm . The conidium is thin-walled. Septum is formed in the main axis immediately above the origin of the lower lateral.

Habitat: Conidia in foam samples, Godavari river (Newasa sangam), 05 February 2012, leg. D.S. Borade.

Distribution in India: Uttarakhand and Maharashtra (Borse et al. 2016, 2017).

5) *Tricladium minutum* (S.H. Iqbal)
Marvanova & Descals
Mycotaxon, 60: 464 (1996).

Conidia: septate, ends subulate to acute, axis usually bent at branch insertions, often twisted between branches (two), rarely sub-straight, slightly tapered towards both ends, 47-105 x 2.5-4 μm , sometimes widened below branches; base truncate or with a subulate plane, antrorse and broadly divergent to perpendicular, or the distal retrorse, 5-10 μm apart, insertion broad; proximal branch 22-57 x 2.5-3 μm , distal branch 17-45 μm long.

Habitat: Conidia in foam samples, Pravara river (Shrirampur), 20 November 2013, leg. D.S. Borade.

Distribution in India: Maharashtra (Borse et al. 2016, 2017).

6) *Tricladium splendens* Ingold
Trans. Br. Mycol. Soc., 25: 388 (1942).

Conidia: hyaline, consisting of a main axis fusiform, 3-6-septate, 60-120 μm long, 6-7 μm broad at widest part, and of two lateral branches 30-80 μm long, 6-7 μm broad at their widest part, tapering to 2-3 μm wide, where each branch joins the main axis of the spore. The two branches originate from the main axis of the spore at levels 10-20 μm apart.

Habitat: Conidia in foam samples, Pravara river (Shrirampur), 20 November 2013, leg. D.S. Borade.

Distribution in India: Uttarakhand, Maharashtra, Andhra Pradesh, Karnataka, and Madhya Pradesh (Borse et al. 2016, 2017).

7) *Triscelophorus acuminatus* Nawawi
Trans. Br. Mycol. Soc., 64: 346 (1975)

Conidia: tetra- or radiate, consisting of main axis tapering gradually to about 0.5 μm at the apex, up to 8-septate, and not constricted at the septa. Main axis is 45-65 μm long and 3.5-5 μm at the widest point. The arms are connected to the basal cell by a very narrow, thread-like isthmus. The arms broaden out after the attachment constriction and then taper gradually to the apex.

Habitat: Conidia in foam samples, Mula river (Sangamner), 19 February 2014, leg. D.S. Borade.

Distribution in India: Uttarakhand, Karnataka, Kerala, Maharashtra, Gujarat, and Madhya Pradesh (Borse et al. 2016, 2017).

8) *Triscelophorus konajensis* Sridhar & Kaveriappa
Indian Phytopath., 40: 102 (1987).

Conidia: hyaline, terminal, septate; main arm 20-35 μm long, 3.5-4 μm broad, 1-3 (rarely 4) septate; three secondary laterals, 15-30 μm long, 2-2.5 μm broad, 0-2 (rarely 3) septate.

Habitat: Conidia in foam samples, Mula river (Rahuri), 20 November 2012, leg. D.S. Borade.

Distribution in India: Karnataka, Uttarakhand

and Maharashtra (Borse et al. 2016, 2017).

9) *Triscelophorus monosporus* Ingold
Trans. Br. Mycol. Soc., **26**: 148 (1943).

Conidia: hyaline, branched, aseptate (or with a single septum in the main just above the point of origin of the lateral branches); main axis 50-70 µm long, 4-5 µm broad (at a distance of 3-5 µm away from the base) tapering to 1.5 µm at the apex and to 1.5 µm broad at the truncate base; secondary branches in a whorl of three, arising at a distance of 3-5 µm from the base of the main axis, 40-50 µm long, 2-2.5 µm broad near the base tapering to 1.5 µm at the apex, base abruptly constricted to 1 µm wide.

Habitat: Conidia in foam samples, Mula river (Rahuri), 20 November 2012, leg. D.S. Borade.

Distribution in India: Uttarakhand, Maharashtra, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, and Madhya Pradesh (Borse et al. 2016, 2017).

10) *Varicosporium elodeae* W. Kegel
Ber. Dtsch. Bot. Ges., **24**: 213 (1906).

Conidia: consisting of a main axis 60-100 µm long, 3 µm wide, with one to three laterals of the same width developed on one side only of the main axis. Each of these laterals may branch again usually in the same one-sided manner. The degree of branching of the spore varies considerably. The conidia may fragment to some extent by a part of the spore breaking off at an isthmus.

Habitat: Conidia in foam samples, Mula river

(Newasa), 11 November 2013, leg. D.S. Borade.

Distribution in India: Assam, Karnataka, Andhra Pradesh, and Maharashtra (Borse et al. 2016, 2017).

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References:

- D. S. Borade, N. S. Pawar and B. D. Borse (2020) *Bioinfolet* **17 (3A)**: In press
Borse, B.D., Borse, K.N., Patil, S.Y., Pawara, C.M., Nemade, L.C and Patil, V.R. (2016) "*Freshwater Higher Fungi of India*", Lulu Pub., USA and Luxmi Book Pub., Solapur, Maharashtra, India, pp- 1-636.
Borse, B.D., Borse, K.N., Chaudhary, S.A., Patil, V.R., Patil, S.Y., Gosavi, S.A. and D.S. Borade (2017) "*Freshwater and Marine Fungi of India*", LAP Lambert Academic Publishing, Germany, pp- 1-163.

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Women Assistance for the Development of Higher Education in India

Keshav Gangurde¹ and Bharat Shelke^{2*}

¹Dept. of Chemistry, Arts, Commerce & Science College, Kinhavali, Thane, (M.S) India.

²Dept. of Chemistry, Arts, Science and Commerce College, Ozar (Mig), Nashik (M.S) India.

Introduction: Women have become the backbone of the society by playing various roles in daily life with ease. She plays versatile role as a loving daughter, as a loving mother, as a capable companion, all these relation are handling by women very skillfully and tenderly. In India, women's education plays a vital role in the overall development of country. Women make up about half of the population. Through education, a woman helps in improving quality of life at home & outside. Still they are victims of social inequality, economic dependence and other social oppressions. From time immemorial, these restrictions on women have hampered their personal and professional development. Women education and empowerment are the key indicators in the development of any nation. If women are financially empowered, their dependency will be removed and they will be able to achieve family development through self-development. Women are now moving towards progress in every field and women empowerment is the need of the hour. Education is a very effective tool to make progress in life. What could be more effective than education for the advancement and empowerment of women?

Status of Women education before and after Independence: Now a day, women are performing their duties in various fields like teachers, doctors, pilots, soldiers and politicians. 'Human life is useless without education' the idea came to us during the British rule. From this point of view, the history of gender education in the twentieth century is very exciting. The British ruled over us for a hundred and fifty years, with many good and bad far-reaching consequences. The British government started educating the Indians according to their needs and the missionaries started spreading the religion. But the good thing is that the influence of English education began to shake the minds of the local thinkers and they began to see the importance of social reform through education. After independence, Indian Government has taken various initiatives to make education freely available all over the country for women. As a result of which women literacy rate increases from 22% in

1971 to 54.16% in 2001. Women education improves health of family, as she knows the importance of health and hygiene in normal growth and development.

Women educators before and after independence: India has a great number of women educators who had selflessly done for education beyond their capacity and some are still doing. Considering that education would be the precursor of fundamental change for the society, Mahatma Phule in Maharashtra taught his wife by protesting at the family and social level. In 1848 they started a school in Pune and first school for girls in 1851. Savitribai Phule, first teacher was born after enduring the harassment done by the society. She continued the movement of change in women's education started by Mahatma Phule. Savitribai Phule, Ramabai Ranade, Lakshmibai Tilak are prominent names among the women who learned after marriage and later worked in the field of education due to their husband's insistence. In the same era, Harkunvarbai, the widow of Hari Singh Keshar Singh, started a girl's school in Ahmedabad. In 1883, Chandramukhi Bose and Kadambini Bose went to college affiliated to Calcutta University after clearing the entrance exam. In Bethune College, they had started a special class for women as there were no girl's college and girls were not allowed in men's college. This brings the way to their fellow women to go for higher education in medical field. In 1885, Swaroop Kumari Devi formed the educational institute named 'Shakti Samiti' in Kolkata. In 1909, Ramabai Ranade established 'Seva Sadan' to explore the education to women in Mumbai. In the half century from 1923 to 1973, Tarabai Modak sowed the seeds of child education all over India and created appropriate techniques in the field of child education. In 1924, Jaibai Chaudhary of Nagpur established Chokhamela Girls' School, while Anjanabai Deshbhratar set up a hostel for girls. Similarly for Muslim girls, Begum Jajira, Atiya and Johra Faizi, as well as Rukia Hussain contributed in the field of education.

Inspired by Gandhiji, women like Sarojini Naidu, Kamaladevi Chattopadhyay, and Muthulakshmi Reddy also did a great job in education and freedom struggle. Similarly, Abala Bose, Sarladevi Rai, Mrinalini Sen took the initiative in setting up the educational institute. Generally, 1901 to 1950 was an important period in terms of the awareness and the spread of education. There were many experiments done to make students of independent intellect by breaking the prevailing system of education which creates citizens with 'clerical' mentality. History remembers the name of Anutai Wagh in this regard. She took schools to the homes of tribal children in Kosbad. The word 'Anganwadi' was born there as a school that reached the tribal courtyards. In Kolhapur, Lilatai Patil did new experiments through the school 'Srujan-Anand'. He

devised various ways for the children to acquire knowledge of life from the surrounding nature, society, daily life, develop various skills and, most importantly, enjoy creative learning. Vidya Patwardhan, Suhas Kolhekar and Vandana Bhagwat have also conducted a unique experiment in 'Akshar-Nandan' school in Pune. Here is a picture of children who go beyond the curriculum and cultivate creativity. For years in Satara, Deshpande and Shaila Jadhav have been working for failed children and building their confidence. Dr. Abhay and Dr. Rani Banga, Dr. Prakash and Dr. Mandakini Amte, while working in the tribal areas paid attention to tribal education along with health. Similarly, Kusumatai Karnik, Renu Gavaskar, Renu Dandekar are some of the important names working in this field. After 1960, the governmental reforms encouraged the contribution of women in education and society.

Women educators in last two decades: Vimla Kaul, at the age of 81 becomes a teacher even after retirement. She opened a school 'Gooldasta' in 1993 in Municipality Park in New Delhi. Roshani Mukharji being a passionate teacher, quite her well-paying job in an IT company and started uploading her teaching videos, in 2011. She uploaded approximately 4000 videos on youtube and has around 75000 subscribers. A Padma Shri awardee Geeta Dharmarajan started school 'Katha' for underprivileged children's at various locations like Maharashtra, Delhi, Arunachal Pradesh and Haryana. Apart from teacher she is a children's book writer, editor and social worker. Mukta Dagli visually impaired women along with her husband started a school 'Pragnachakshu Mahila Seva Kunj' for visually impaired and blind women in Gujrat.

Present status of Women: Now a day's women are having an equal play-ground in all fields with the men. They perform better in the fields which are supposed to be only for men. They have started self-help group to encourage, sensitize and educate other women leading to establishment of National Women Organizaations such as 'All India Federation of Women Lawyers', 'Bhartiya Gramin Mahila Sangh', 'Durga Vahini', 'Gulab Gang', 'Indian Women Scientists Association', 'Honour for Women National Campaign', 'RAHI foundation' and many more. The increase in number of members in such organizations has been found to rapid in last two deacades. So, now a day, women through education come together, think together and fight for the rights of other women in the male dominated society.

Conclusion: The studies have shown that, role of women in Indian higher education is significant in nation building. Noticeable social progress in the developing countries takes place by women empowerment through education. Since ancient and medieval periods women are the part of famous educational institutions in India to increase

rate of literacy. Over the past several decades, unforgettable contribution of famous women in India drastically increases access of female students to colleges and universities. Presently, with respect to number of students, Indian higher education system is the world's third largest country. The government has several schemes for the development of women and there is a need to create awareness at the village level. Being a role model for others, the women who dedicate their lives for girls education in India, affect gender equality. The girls are now not behind but moving far ahead the boys in the field of education. The study also witnessed massive transformation of women from female dominated profession such as teaching to the male dominated profession such as medical & engineering through higher education. The contribution of women in higher education made fruitful benefits in promoting gender equality and general dignity of women in the society.

References:

1. All India Survey on Higher Education, MHRD, Govt. of India: www.aishe.gov.in
2. Basu, A. (2005). A Century and a half's journey: Women's Education in India, 1850's to 2000. In B. R. (Ed.), Women in India: Colonial and Post-Colonial Periods. New Delhi: Centre for Studies in Civilisations.
3. Desai, A.S. (1999) : Women in higher education and national development, University News, AIU, Vol 39, No 9
4. Mandal, Ajit and Mete, Jayanta, 2012, May (14-20) , Women Empowerment and Education in the context of India, University News, Vol – 50, No- 20, P (12-15)
5. Swami Raju Narayana, U.N., 2012 (Sep. 24-30), Higher Education as a Tool for Rural Women Empowerment, Vol – 50, No. 39, P – 17.
6. Suguna M. (2011). Education and Women Empowerment in India. International journal of Multidisciplinary Research: VOL. 1. Issue 8.
7. Raj V.(2018) First Indian Women Teacher: Savitribai Phule: Biography of Savitribai Phule
8. <https://shodhganga.inflibnet.ac.in>



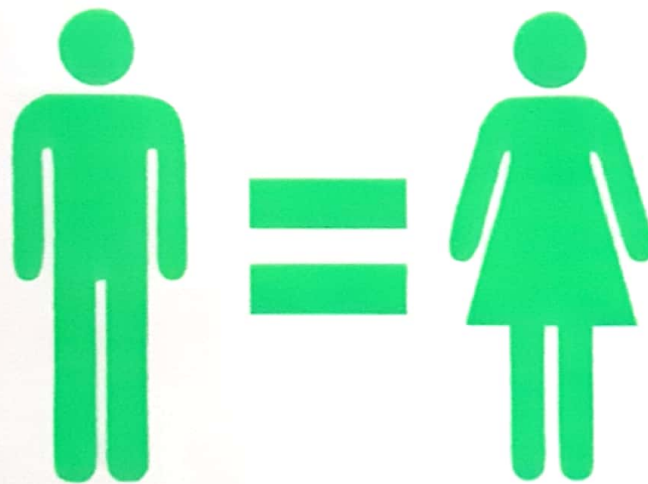
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The Study on Challenges Faced by Working Women

Varsha Shimpankar,¹ Bharat Shelke^{2*}, Keshav Gangurde³

¹Department of Physics, Arts, Science and Commerce College, Ozar
(Mig) Nashik (M.S), India.

²Department of Chemistry, Arts, Science and Commerce College, Ozar
(Mig) Nashik (M.S), India.

³Department of Chemistry, Arts, Commerce and Science College,
Kinhavali, Thane (M.S), India

Email: bharatshelke85@gmail.com

Abstract: A woman must have equal opportunities in the all sectors as like men. Gender bias affects on dignity of women. The big challenges in front of her is to maintain balance between career and family. At working place, she faces gender bias, mental harassments, lack of privacy at workplace, insecurity and working hour issue. Apart from all these, she has to suffer with family duties like born as girl child, duty as a mother, and duty as a wife as well as to take care of all the minute things in house. The main intention of this paper is to focus on the challenges face by working women for balancing her career with family. The women over the all world have somewhat similar issues. To organize more orientation programs about gender equality and to increase the literacy rate will change the psychology of the people and it will help to empower the women and may reduce the various problems of working women and provide better life for her. The community has main role to help working women for balancing the life

Keywords: Gender bias, working women, harassment, social duties, career

Introduction: Women are play foremost role to develop the society. In Marathi we always say "Mulagi Shikali Pragati Zali". It is definitely that one educated girl child in home will help to develop socio-economic condition. Traditionally, women had home workers. But in 21st century, though due to higher education and some policy of governments, Women started to do job and assist her family for better economic condition. During the work they are facing several challenges and it affects on her health as well as living status. Sometimes they are not treated equally at their work place. Insufficient family support, insecurity, insufficient leaves, physical and mental harassment are major issues in front of working women.

Because of raising financial expenses on living, education, health and hospitals, women in India change her role from house workers to working women. Due to this, stress is increase and it affects on her life. As a result it influences directly on her mental and physical health. Considering this challenges still women are giving her best in male dominant field, such as politics, business and corporate sector. In India still men consider as dominant factor in family and working place also. Although working women manage their professional and personal life very sincerely. They have to do full day work at working place and handle all household responsibility as house maker. Because of such multitasking efforts women are always suffer in stress.

If we consider corporate sector, women have complete their work at home by cutting the few hours of their rest. In India many families are joint families and due to this there is more responsibilities on women head, they add more stress to working women as they expect more about family responsibility.

Challenges in front of working women:

Gender inequality: In Indian society women are supposed to weak and less capable in working place. The potential of women is always underestimate their progress. Even working women are independent but still she depend on somebody. Society has not given decision making right to women. The peoples from society not giving to much credit women work. The work distribution still based on gender basis which creates problems to women. There are some several sectors in which only men's are dominant and women are still struggling to get higher position. During the promotion as well as some departmental achievements, women are considered as second choice. Even the capable women are also rejected for higher position only due to gender bias.

Family issue and career: This is the one of the most important task at the front of working women. Family and its issue still have the first priority according to Indian society while carrier and profession considered as a second preference. To playing dual role for working women suffers much stress in their daily life. To maintain balance between family and career is tedious job and creates much more pressure on them which raise the health issues. Due to less moral and emotional support by family members, she is unable to handle the work pressure of her job. Many times due to family issues she has to leave her job even though she is doing best. In corporate sector, the transfer issue, field visit and due to many additional reasons women are not getting job security.

Harassment at workplace: This issue raises the stress level of working women. In some sectors, women are always considered as weak and incapable for difficult task. The higher authority sometimes intentionally

harass to women for different purpose. Due to insufficient maternity leave working women have face struggle in between child care and achieve target given to them in working place.

Lack of privacy at workplace: Women are always considered as weak at their working place and expecting too much perfection in their family life. In between this dual role working women don't have time for themselves. They didn't get privacy which is obligatory in accordance with her health issue. Sometime they feel depression and quit a job or accept the depression as a part of their life.

Health issues due to stress: Due to hard work and efforts taken to complete multiple responsibilities, it is observed that working women suffering more stress. It can creates many health problems such as back pain, headache, hypertension etc. By statistical study, it is found that stress level in working women is directly proportional to their problems. The work pressure as well as due to some economic and family problems, many women ignore towards health problems which finally transforms into major problem.

Conclusion: Society has main role to encourage the working women and respect her dignity. The governments laws must be strictly follow by all the corporate and professional offices. The law has given equal rights to men and women and every sector must apply in their workplace. The women committee must be active in the sense to implement all the rights of women. The family members should give moral and emotional support to women. Men also take some responsibilities of house work, so women can manage and reduce her work pressure. The more public awareness programs should be arranged in school and colleges to promote gender equality. Each sector should take care of health issue of women and provide stress free environment at the workplace.

References:

1. Aarti Verma and Mahesh Mulani. Challenges and Issues of Working Woman in 21st Century, RET Academy for International Journals of Multidisciplinary Research, 2018, 6(3)
2. Shivi Mittal. Challenges faced by working women at workplace, family and society -its major issues, impact and remedial measure, International Journal of Research in Social Sciences And Humanities, 2015, ISSN: 2249-4642
3. G. Delina and Dr. R. Prabhakara Raya, A study on Work-Life Balance in Working Women, IRACST – International Journal of Commerce, Business and Management (IJCMB), ISSN: 2319-2828, Vol. 2, No.5, October 2013
4. Prof. Priyanka Panchal, Prof. Sonal Belani, Prof. Mittal Darji. The challenges faced by indian working women to balance professional and

- social life in 21st century, Indian Journal of Technical Education (IJTE) | Special Issue for ICWSTCSC-2016
5. Mr G.Shiva, A Study on Work Family Balance and Challenges Faced By Working Women", IOSR Journal of Business and Management (IOSR-JBM) e ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 14, Issue 5 (Nov. - Dec. 2013) PP 01-04
 6. Dr. Kamini B. Dashora, Problems Faced By Working Women In India" International Journal of Advanced Research in Management and Social Sciences, ISSN: 2278-6236
 7. Zameer Ahmad Bhat ,Gender bias and socio-economic problems of women in india, Abhinav National Monthly Refereed Journal of Research in Arts & Education, Online ISSN-2277-1182, Volume 3, Issue 4 (April, 2014)
 8. Abdul Malik Abbasi, Iqra Abbas, Shehnaila Malik, Exploring the problems of women at workplace, Journal of Social Sciences and Media Studies, Vol. 03 Issue No. 01



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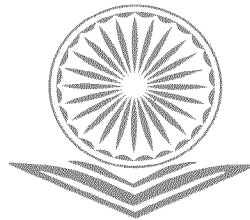
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Principal's Address

A one-day interdisciplinary National Level Seminar organized by Jawahar Education Society's, Vaidyanath College, Parli Vajinath, Departments of Sociology, History and Zoology; it has been held on 6th & 7th June, 2020 on the Subject "Thoughts of Dr. Babasaheb Ambedkar"

As the Principal, I warmly welcome the members of organizing Committee and all the participating dignitaries. Vaidyanath College was established in 1968. It is affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. The college has a permanent affiliation with the university.

The colleges have Arts, Commerce and Science as well as Post Graduate Departments & Research Lab facilities. The college was Re-accredited and evaluated by NAAC in 2012 and has been rated "B" Grade with CGPA 2.53. The College has always been at the forefront of quality and social commitment. I am sure that this One day National Seminar will be of great benefit to students, researchers, subject experts as well as participating professors working in this field.

The main purpose of organization of this webinar is to make everyone understand the thoughts of Dr. Babasaheb Ambedkar during the problem that has arisen due to the COVID-19 Pandemic period & the ongoing curfew in our country and state. Once again I warmly welcome to all delegate participants.

Thanking You.

Dr. R. K. Ippar
Principal, Vaidyanath College,
Parli-Vajinath.

Editorial Message.....

Marathwada is already known as a backward region. There are a large number of social, economic and educational problems. Parli Vajinath in Beed district is remote area is mentioned in history as the 5th Jyotirlinga out of twelve Jyotirlingas. Also, the Vaidyanath temple at Parli is considered to be the modern Jyotirlinga. An inscription found here suggests that the temple was ancient. On a rock in the old ghat to the east & 1108 CE is recorded as such.

However, it can be said for sure that Jyotirlinga is an ancient temple here. Jawahar Education Society's, Vaidyanath College a leading college in Marathwada region and has been imparting knowledge since 1968. Now days COVID-19 is a infectious diseases are spreading all over the world. In our country and in Maharashtra, the situation of this disease is dire. The government is working hard to reduce the spread of these diseases.

Meanwhile, UGC and the University introduced the concept of work from home. Accordingly, professors should do academic work from home, so that professors and researchers can expand the field of education and give space to researchers. In our college a two-day National Interdisciplinary Webinar was organized on behalf of college departments History, Sociology and Zoology held on 06th and 07th June, 2020 on the "Thoughts of Dr. Babasaheb Ambedkar".

Dr. Babasaheb Ambedkar was a revolutionary and humanitarian. His social, political, religious, economic and educational activities showed that his personality was all-round. He has been recorded in the history of the world as a professor, barrister, social reformer, political leader, theologian, reformer, learned parliamentarian, minister, savior of the untouchables and sculptor of the Indian Constitution.

After studying his thoughts and work, Dr. Babasaheb Ambedkar is not an individual but a think tank. Dr. Ambedkar fighting for human liberation, he created an identity in a society that was ostracized by all. By enacting the Indian Constitution and embracing the eternal values of freedom, equality, fraternity and justice, the rights of Dalits, the exploited, the neglected, the deprived, women, workers, etc., were enshrined in the Constitution.

Dr. Babasaheb Ambedkar's thoughts are a guide to the Bahujan Samaj. During the lockdown, the professors were given the opportunity to do research. An online webinar has been organized on the occasion of the 129th birth anniversary of Dr. Babasaheb Ambedkar. The purpose of the webinar is to use it for study. Dr. Babasaheb Ambedkar's thoughts, is the main subject. For this, about 163 professors and researchers have sent their research papers and 863 delegates participated in the webinar.

Editorial Message.....

The resource persons were guided to all delegates are Dr. Sandesh Wagh (Head, Department of History, University of Mumbai, Mumbai), Dr. Priyadarshan Bhavre (Head, Department of Sociology, Badrinath Barwale College, Jalna), Dr. Anjana Singh (Head, Department of History, Ranchi University, Ranchi), Dr. Dilip Telang (Head, Department of History, Professors and researchers will benefit from the guidance of Dr. H.D. Devashi College, Wada Palghar).

Shri. Jugalkishore Lohia, Vice President of JES, Dr. D.G. Munde & Shri Fulchandrarao Karad, Vice Presidents of JES, Secretary of JES Shri Dattappa Itke, Treasurer of JES Shri Suresh Agarwal and all the office bearers of the JES organization. Dr. R.K. Ipper, Principal of Vaidyanath College, Professor Representative of the Society Shri . D. K. Andhale. Vice Principals Dr. V. J. Chavan, Dr. J. V. Jagatkar, were guided to organize and completion of the webinar

The conveners are thankful to the “Ajanta Publication, Aurangabad for their cooperating and publishing online journal. We would also like to thank all our faculty friends, teaching staff as well as the known and unknown persons for their direct and indirect support to us.

Thank you !

Dr. Babasaheb Shep
Head of History Department
Vaidyanath College, Parli-Vaijnath,
Dist. Beed (MS).

Dr. Ramesh Rathod
Head, Department of Sociology
Vaidyanath College, Parli-Vaijnath,
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1. Dr. B. R. Ambedkar's Works for Women Empowerment

Asst. Prof. Ahe Vaishali B.
Babuji Avhad Mahavidyalaya, Pathardi.

Abstract

The main aim of Dr. Babasaheb Ambedkar's life work was to establish the society on the structure of equality. In the every moment he expressed the thought of whole the women's empowerment. In his every speech he mentioned the thought of gender-equality. Strongly he was opposed to the gender discrimination. He was always decline the society which was builds on the principles of male domination and inequality. There was an insistent role that there should be no gap between men and women. How will this imposed slavery fall if the patriarchal culture or heterogeneous society is exposed? And there is only one human being who is Dr. B. R. Ambedkar who provides humanity to women.

Key words – women, empowerment, gender equality, Hindu Code Bill and humanity etc.

Introduction

The aim of Dr. Babasaheb Ambedkar's life work was to create an egalitarian social structure, to express the idea of upliftment and upliftment for all women at every moment. From every speech, he kept presenting the manifesto of the ideal code in the context of women's liberation. He also condemned the non-Hindu community for not cooperating with the untouchables and for not cooperating with women.

It was because of Dr. Babasaheb Ambedkar that women became self-aware. Realizing their identity and existence, they knocked on the door of progress. Nevertheless she fell victim to the double-triple exploitation of caste system. There is physical and mental torture. Even today, fear does not end there. Dr. Babasaheb Ambedkar wherever he went, he conveyed the message of living with self-respect to Dalits and women. Dr. Babasaheb Ambedkar's words were inspiring. The education is the light of life, gender equality is the word for progress and equality is the base of society. Dr. Babasaheb Ambedkar's speeches inspired women by embracing values and liberation at every moment.

Dr. Babasaheb Ambedkar Spread his thoughts about Women Empowerment through Writing And Speech

In the issue of Mooknayak dated 11th September 1920, some dignitaries uttered some remarks about women's education. Mrs. Manoramabai said, if half of the women in the society remain uneducated, it cannot be said that the society has improved and prospered. Women need to be educated more than men. The woman is responsible for the upbringing of the household. Therefore, an educated woman is better than an uneducated woman. Also, Anusayabai Kamble wrote a letter for the excluded society. "By enforcing the sacred law of primary compulsory education for our children, we should make it easier for our future generations to reach the pinnacle of education."¹ A tradition was to curb her and stop her. Therefore, Dr. B. R. Ambedkar assured from time to time that a Dalit woman would not be uplifted without adopting the path of education. To realize this fact, People's Education Society was established to facilitate the education for boys and girls of the Dalit community. In a letter to Jadhav, who is in the military camp here, he writes, "We must educate boys and girls too, then there will no problem in making rapid progress."² So in Satara there opened Siddharth and Milind colleges.

Dr. B. R. Ambedkar's Work for Women Empowerment

Every speech of Dr. Babasaheb Ambedkar showed great emphasis on women education. He mentioned clearly that every one of our sons and daughters should be educated. After the Women's Conference of 1942 in Nagpur, Dr. Babasaheb Ambedkar has written a long letter to G. T. Meshram on 3-8-1942. The gist of the letter was, "I am very impressed by the Women's Council. I am a partisan of women and I would love for them to participate more in social work. Their attire, their neatness, and the conceptual confidence with which they were present at the conference made my heart rejoice."³ All India Dalit Class Conference was held in Nagpur on 19th July 1942, in which Dr. Babasaheb Ambedkar delivered a historic speech. There were about 20,000 to 25,000 women presented for these three conferences. Mrs. Dongre (Amravati) was the chairperson of the Depressed Classes Women Conference. Among the resolutions passed in this women's conference were divorce and giving, women getting share in real estate etc. In his speech, Dr. Babasaheb Ambedkar of the ABDM Women's Council said, "The progress made by our women class is astonishing and inspiring in its movement. Of course, it is very satisfying. It is something that we should all be very proud of. There is no need to thank anyone else for this progress."⁴ Babasaheb was overjoyed to see such a large number of women participating in this

conference. They were overwhelmed. Women are coming out of self-esteem. I was proud of it. The progress of the society depends on the progress of these women.”⁵

Resolutions passed in the ABDM Council

- 1) Wholeheartedly supports the resolutions passed in the ABDM Council.
- 2) The government and community leaders should amend the law to give the wife the right to divorce her husband.
- 3) The practice of polygamy should be banned.
- 4) Women workers should be given 21 days of casual leave and one month of paid leave in a year. The meeting requested the government and the Viceroy's representative to pay a pension of Rs. 15 per month. Girls who can't afford free ships and allowance should be given.
- 5) Due to high illiteracy rate among untouchable women, primary education should be made compulsory.
- 6) In the mill a female supervisor should be appointed in a place where male supervisors treat women workers unfairly.
- 7) Provision should be made for reserved seats for the appointment of women representatives in the Central and Provincial Legislative Boards as well as in the local self-governing bodies. This will lead to social progress.

During his speech on August 14, 1931, Babasaheb said, "Our women need to make a lot of improvements in their lives and other practical things."⁶ Really Dr.B.R.Abedkar was a great man of foresight.

Samata Sainik Dal

Samata Sainik Dal was an organization formed by Dr.Babasaheb Ambedkar. It was a chaotic social organization. This social shield was strengthened the women. In such an organization, men as well as women have joined. Dr.Babasaheb Ambedkar intended to raise her morale, courage, perseverance, self-confidence and a strong female in Samata Sainik Dal. There should be a woman who fights against exploitation of caste, religion, gender; inequality, educates the uneducated, rewards values etc. It also took time for her to become not only physically strong but mentally too. Moral and corporal education should also be developed through sports, and the way forward should be smooth by stopping the flow of ignorance and superstition. The original purpose of the organization was also to educate every child in the household by every woman in

the family. It was also the duty of the women of the Samata Sainik Dal to prohibit men or women in the household from consuming alcohol. Self-defence needed time. The Women's Equality Soldiers' Branch planned training camps to train other women as well. Samata Sainik Dal has done a great job by opening branches in every village, town and state. That history cannot be ignored.

Cremated Manusmriti

The ancient legal system in our country was dangerous. The Manusmriti that tormented our lives, the Vedic culture that taught us to treat women and Shudras with disgust. Such a manusmriti was cremated by Dr.Babasaheb Ambedkar on December 25, 1927. This was our first independence victory. Dr.Babasaheb Ambedkar invented a great work and annihilated the Hindu woman's sufferings and insult through the constitution. The way to their upliftment became clear. He decline misleading manifesto and wrote the manifesto of women's liberation from the article of the constitution through the Hindu Code Bill. So the woman who was drowning in the darkness became radiant. Dr.Babasaheb Ambedkar did not accept gender discrimination. Babasaheb was thinking that women should be 'Att Deep Bhav' without being limited to 'Chul and Mul'. Therefore, special provisions have been made in the Indian Constitution to give equal status to women. According to Article 14 of the Constitution, everyone is equal. No one is discriminated against under Section 15 (1): everyone has the equal right of work, education and property under Section 41. Section 42 provides for maternity help to women. According to sections 43, 44 and 45, everyone will get equal work, equal pay, equal opportunity under section 46, women belonging to Scheduled Casts/Scheduled Tribes will get equal share of wealth. 7

The Hindu Code Bill

The Hindu Code Bill was a manifesto for the advancement of women. Dr.Babasaheb Ambedkar wanted to confront the old heterogeneous values through Hindu code bill and establish social equality. For Hindu women to have equal rights, Dr.Babasaheb Ambedkar worked hard day and night. But the fundamentalists of Sanatani Dharma strongly opposed the Hindu Code Bill. Of course Hindu Code Bill was caught in the mental slavery of cast. Dr.Babasaheb Ambedkar also insisted on his role. He did not compromise. But, when the Hindu Code Bill was not passed, Dr.Babasaheb Ambedkar became angry and frustrated and resigned on September 28, 1951. Twenty laws were enacted in India for the purpose of protection of women. But the Hindu Code Bill, which speeds up life, passed only four laws between 1955 and 1956. This raised the

standard of living of Hindu women to some extent. 1) Hindu Marriage Act 2) Hindu Inheritance Rights Act 3) Hindu Ignorance and Guardianship Act 4) Hindu Adoption and Alimony Act. The four laws freed Hindu women from the yoke of religion and culture. Women freed from mental, intellectual and traditional slavery. They got new freedom / new rights or new life with dignity.

Conclusion

In today's age of science, the woman of the past is no more. Freed from patriarchal culture, she embraces and accepts challenges. So her position and direction changed. She became independent; she became a part of mission, movement, satyagraha etc. She started leading from the streets to Delhi. Women began to flourish in every field, began to resist injustice and oppression. A new chapter entered in her life with the constitution. So she became a conscious, self-respecting educated woman activist. Now she became ready for accepting the new challenges and responsibilities of 21 st century. Dalit literature came to the fore in the 1960s. Women are also start writing the literature. Through the writing women started expressing their sorrows, pains and injustices without any hesitation. By combining writing and action, the grief of the exploited began to erupt. There is no doubt that the exploitation system is being explored and education is the only guide for women. It is only because of Dr.Babasaheb Ambedkar's vision bright and energetic women seems to have taken their place. Awakening of strong leadership, Dr.Babasaheb Ambedkar touched the sorrows of women and the contempt of women was destroyed forever. Women who have settled down in the politics of power after a very difficult journey and now lead firmly and competently. Whether Dr.Babasaheb Ambedkar's writing about women gives us new attitude. Thoughtful thinking and writing of Dr.Babasaheb Ambedkar made her from weak to a capable woman. Her position and direction changed by the the vision of Dr.B.Ambedkar. She began to raise questions and began to answers. Her work began to prove mastery. So let us start stand up with her for dignity of humanity....!

References

1. Bahishkrut Bharat Ani Mooknayak-Gov.of Maharashtra(Pages 390,418,420,122,,260)
2. Bahishkrut Bharat Ani Mooknayak-Gov.of Maharashtra(Pages 122&260)
3. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018(Marathi Book)
4. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018 (Marathi Book)

5. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018 (Marathi Book)
6. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018 (Marathi Book)
7. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018(Marathi Book)
8. Dr. Babasaheb Ambedkar's writing and speeches, Government of Maharashtra, Vol. 18 , Part 2 , page 132.
9. Agrawal ,S. Genocide of Women in Hindusim, Sudarshan books, Jabalpur.
10. Mahindra Gaikwad , Dr. B. R. Ambedkar's writing about women, Sangharsha Publications, Nagpur, 2018

2. Dr. B. R. Ambedkar - The Great Visionary Social Thinker

Anil Kosamkar

Associate Professor, Dept. of Sociology, Dr. L. D. Balkhande Arts and
Commerce College Pawani.

Introduction

The revolutionary, who fought against the untouchability practiced in India, is popularly known as the Chief Architect of the Constitution of India and masiha for the Dalit in India. Dr. B. R. Ambedkar was influenced by Liberalism, believed in Parliamentary Democracy, worked for upliftment of women. He joined interim Govt. was the First Law Minister who brought revolutionary Hindu Code Bill with aim of uplifting status of Women.

Biography

Childhood and Early Life

- Belonging to Mahar caste, who were considered untouchables, his family suffered from socio-economic discrimination. However, due to special privileges rendered to army children, he secured good education.
- In 1897, he along with his family moved to Bombay where he enrolled at the Elphinstone High School, thus becoming the first ever untouchable to attain higher education.
- Completing his matriculation degree in 1907, he admitted himself to Elphinstone College in 1908, again creating history by becoming the first untouchable to enter university. He graduated from the same in 1912 with a degree in economics and political science.
- He secured a job at the Baroda state government but did not continue the same for long as he was awarded a Baroda State Scholarship, which provided him the opportunity to gain postgraduate education at Columbia University in New York City. To pursue the same, he moved to America in 1913.

- He completed his MA in June 1915, majoring in Economics, with Sociology, History, Philosophy and Anthropology as other subjects of study. Two years henceforth, he gained a PhD in Economics.
- Meanwhile, in 1916, he enrolled for a bar course at Gray's Inn. However, due to the termination of the scholarship, he had to return to India.

Career

- Upon returning to India, he worked as the Defence Secretary for the Princely State of Baroda. However, the work was not easy for him as he was often ridiculed and castigated for being an untouchable.
- Quitting the profile of military minister, he took up jobs as a private tutor and accountant. He even established a consultancy business which doomed due to his social status. He finally found himself a teaching position at the Sydenham College of Commerce and Economic in Mumbai
- Being a victim of caste discrimination inspired him to uplift the pitiable state of the untouchables in the society. Thus, with the help of the Maharaja of Kolhapur, he founded a weekly journal, 'Mooknayak', which criticized the orthodox beliefs of Hindus and the reluctance of politicians to fight against the discrimination
- Accumulating enough wealth, he moved to London to complete his education. In 1921, he attained his Master's degree from the London School of Economics. Two years later, he acquired his D.Sc. in Economics. Completing his law studies, he was admitted to the British bar as a barrister.
- Returning to India, he started working as a legal professional in the country. His passion for eradicating the practice of caste discrimination led him to found the 'Bahishkrit Hitakarini Sabha'. The main aim of the organization was to provide education and socio-economic improvement to the backward class.

Political Life

- In 1925, he was appointed to Bombay Presidency Committee to work under the All-European Simon Commission. The commission reports were thrashed by the Congress who set up its own version of the Constitution of free India.
- In 1927, he actively worked against untouchability. Instead of taking the route of violence, he walked on the footsteps of Gandhi and led a satyagraha movement,

fighting for the rights of untouchables to access the main water source and enter the temples.

- In 1932, due to his rising popularity as a crusader of the rights of the depressed class he received an invitation to attend the Second Round Table Conference in London. However, at the conference, he opposed Gandhi who voiced against a separate electorate that he demanded. Finally, he reached an understanding with Gandhi which was called the Poona Pact according to which instead of a special electorate, a reservation was granted to the depressed class in the regional legislative assemblies and Central Council of States.
- In 1935, he was appointed as the Principal of the Government Law College, a position he retained for two years. Following year, he founded the Independent Labour Party, which went on to secure 14 seats in the 1937 Bombay elections
- Same year, i.e. in 1937, he published his book, 'The Annihilation of Caste' in which he strongly ridiculed the Hindu orthodox leaders and condemned the caste system practiced in the country. Next he came up with his work, 'Who Were the Shudras?' in which he explained the formation of Untouchables.
- As soon as India gained independence, he administered the transformation of his political party into the All India Scheduled Castes Federation. However, the party did not perform well at the 1946 elections held for the Constituent Assembly of India.
- He served as the minister for labour of the Viceroy's Executive Council and on the board of the Defence Advisory Committee. It was his dedication that led him to earn the chair of Free India's first law Minister and as the chairman of the drafting committee of the Constitution of India.
- The constitution drafted by him aimed to bring about a social revolution in the country freeing it from any sort of discrimination. It provided the citizens with freedom of religion, abolished untouchability, advocated rights for women and bridged the gap amongst the classes of the society. It even provided reservations of jobs and education for members of the backward class.

- Other than his role as the framer of the Constitution, he helped establish the Finance Commission of India. It was through his policies that the nation progressed both economically and socially. He emphasised on free economy with stable rupee.
- In 1951, following the indefinite stalling of the Hindu Code Bill proposed by him, he resigned from the Cabinet. He contested for a seat at the Lok Sabha but was defeated. He was later appointed to the Rajya Sabha of which he was a member until his death

Personal Life and Legacy

- He converted himself to Buddhism after attending a convention in Sri Lanka of Buddhist scholars. Inspired by their preaching, he penned a book on Buddhism. No sooner he converted to the religion. He founded the Bharatiya Bauddha Mahasabha (Buddhist Society of India) in 1955 and completed his final work 'The Buddha and His Dhamma' in 1956. The book was however published posthumously
- His deteriorating health condition further worsened as he suffered from diabetes and weak eyesight. He breathed his last at his home on December 6, 1956.
- Since he had converted himself to a Buddhist, a Buddhist-style cremation was organized for him. The ceremony was attended by hundreds of thousands of supporters, activists and admirers.
- To commemorate his contribution to the society, a memorial was constructed and established.
- His birthday is celebrated as a public holiday, known as Ambedkar Jayanti or Bhim Jayanti.
- In 1990, he was posthumously awarded Bharat Ratna, India's highest civilian honour.

Dr. B. R. Ambedkar As A Political Thinker

- The political philosophy of Ambedkar assist in renegotiating the crisis of western political theory in particular and leading the fights of the people in general. Ambedkar has arisen as a major political philosopher with the rise of dalit movement in contemporary times.

- He emerged on the Indian socio-political area in early 1920s and remained in the head of all social, economic, political and religious efforts for upliftment of the lowest layer of the Indian society called untouchables.
- Dr. Ambedkar's attack on the caste system was not just aimed at challenging the hegemony of the upper castes but had broader connotation of economic growth and development that the caste system had reduced the mobility of labour and capital which in turn, obstructed economic growth and development in India.
- He strongly suggested democracy as the 'governing principle of human relationship' but stressed that principles of equality, liberty and fraternity which are the foundations of democracy
- According to him, the social precedes the political. Social morality is main focus to his political philosophy.
- He is neither a violent individualist nor a traditional communitarian. His ideas of democracy internalizes the principles of equality, liberty, and fraternity in their true spirit.
- According to him, social relationships are main factors to democracy. His special contribution to political thought lies in his connecting liberty, equality and fraternity to the concept of social democracy, which in line, he relates to democracy as a form of government.
- His political thought has emerged from the three striking traditions of political thought, i.e. liberal, conservative and radical.
- Ambedkar's main focus was on the notion of community. According to him, society is always composed of classes. It may be an overstatement to proclaim the theory of class conflict, but the existence of definite classes in society is a fact. an individual in a society is always a member of a class. A caste is an enclosed class. . His political theory was based on a moral community.

Dr. B. R. Ambedkar and Democracy

- Ambedkar had a long conversation on democratic form of government in his literatures. His conception of democracy is different from the parliamentary democracy of Western Europe. Democracy came with the principles of liberalism.

- It is fundamental changes in the Social & Economic life of the people & the acceptance of those changes by the people without resorting to disputes & bloodshed.
- He wanted Political Democracy to be accompanied by Social Democracy also wanted to establish the principle of One Man, One Vote & One Value not only in the political life but in Social & Economic Life also.
- He gives Importance to Social Democracy Over Political Democracy, paid greater attention to social linkages among people than separation of power & constitutional safeguards for Democracy.
- According to him democracy means no slavery, no caste, no coercion. He wants free thoughts that choice & capacity to live & let live.

Dr.B. R. Ambedkar and Social Justice and Equality

- The primary aim of well ordered society is to establish and maintain justice within its borders.
- Dr.Ambedkar concept of social Justice stands for liberty, equality and social justice of all human beings. He stood for social system which based on right relations between man & man in all spheres.
- For Ambedkar Justice is simply another name for liberty, equality and fraternity. As the chief architect of Indian constitution, he got it shaped clearly on the values of justice, liberty, equality, fraternity & dignity of man. They form the unity of trinity in the sense that to divorce one from the other is to defeat the very purpose of democracy.
- In the Constitution of free India all the Indian Citizens have been guaranteed political and social equalities
- Name of Dr. B. R. Ambedkar has written in golden letters in the history of India as a creator

Dr. B. R. Ambedkar and Women Empowerment

- Dr. Ambedkar the great fighter and deep thinker have made significant efforts on the path of liberty.
- Dr. B.R. Ambedkar's approach to women's right is exclusively different from other social reformers. His goal was to make just society, to secure this goal, Ambedkar

has given equal status to women on par with men by providing many provisions in the Indian constitution.

- Dr. Ambedkar not only ascertain constitutional guarantees to women but also introduced & got passed four acts which strengthened the position of women in the society.
- These were incorporated in the Hindu Code Bill. These are:
 - i. The Hindu Marriage Act, 1955
 - ii. The Hindu Succession Act, 1956
 - iii. The Hindu Minority & Guardianship Act, 1956
 - iv. The Adoption & Maintenance Act, 1956

Dr. B.R. Ambedkar and Labours Laws

- Dr. B. R Ambedkar called as a Saviour of Labour Rights In India.
- He was the labour member of the Viceroy's Executive Council between 1942 and 1946. He was the First Labour Minister of Independent India. On August 7 1942 he called Tripartite Labour Conference in New Delhi.
- He is the man behind reducing factory working hours (8 hrs duty).
- He also framed many laws for women labours also paid equal pay for equal work irrespective of the sex.
- He also made compulsory recognition of trade unions.
- He also developed insurance for employees.

Important Works of Dr.B. R. Ambedkar

The Education Department, Government Of Maharashtra (Mumbai) published the collection of Ambedkar's writings and speeches in different volumes

- *Castes in India: Their Mechanism, Genesis & Development and 11 Other Essays*
- *Ambedkar in the Bombay Legislature, with the Simon Commission and at the Round Table Conferences, 1927–1939*
- *Philosophy of Hinduism; India and the Pre-requisites of Communism; Revolution and Counter-revolution; Buddha or Karl Marx*
- *Essays on Untouchables and Untouchability*
- *The Annihilation Of Caste (1936)*

- *What Congress and Gandhi have done to the Untouchables; Mr. Gandhi and the Emancipation of the Untouchables*
- *The Buddha & His Dhamma (1956)*

Some Facts About Dr. B.R. Ambedkar

- Ambedkar played a key role in establishment of Reserve Bank of India in 1935.
- He had suggested the division of both Madhya Pradesh and Bihar for better governance way back in 1955.
- He wanted to sponsor Sanskrit as the official language of the Indian union.
- Ambedkar contested Lok Sabha election twice but both the times he lost the election.
- His autobiography 'Waiting for a Visa' is used as a text book in the Columbia University.
- He was opposed to the whole idea of reservation of jobs and constituencies and didn't want the reservation system to exist at all.
- He was the first Indian to complete a doctorate degree overseas.
- Ambedkar was the one who insisted on having the working hours reduced from fourteen to eight hours in a day.
- He strongly opposed Article 370 of the Indian constitution which gives special status to the state of Jammu & Kashmir.
- He played a key role in forming the National Employment Exchange Agency in India.

References

1. Ahir D.C. The Legacy of Dr. Babasahib Ambedkar, Delhi, New Delhi
2. Dr. B.R. Ambedkar. Annihilation of casts
3. Indian Political system-J.C. Johari, Anmol Publication Ltd.
4. Indian Politics System-Process, Issues and Trends-Mohamd Yasin, Pradip sengupta, Kanishak Publication New Delhi.

3. Conceptualizing Orphanhood and their Education: with Baba Saheb Ambedkar's Philosophy

Anju Devi

Research Scholar, Department of Sociology, University of Jammu.

Abstract

The development of a country depends on the education of its nation builders who are considered as children. If the children of a country get proper educational facilities, that particular country can be so progressive and advance in every field of knowledge but if it doesn't happen, results can be the deterioration of that country. The present paper is an attempt to understand that how orphanhood affects the educational life of orphans and also tries to understand the importance of education in one's life through Baba Saheb Ambedkar's insights about education. Baba Saheb Ambedkar was of the view that education is a strong tool which can rebuilds the society on the basis of justice and equality. Once he said that education is something which should be in the reach of everyone and it must be provided at cheaper rate to all, without any kind of discrimination. In present study, it is found that orphanhood adversely affects the educational performance of the orphans due to the various challenges which orphans face in their lives.

Key Words: Dr. B.R. Ambedkar, Education, Orphans, Orphanhood

Introduction

Every child deserves to live a good and prosperous life. For that education is very much important. Unfortunately, India has the largest population of orphaned children who are at the verge of exploitation and marginalization. Some of these children are not even in a position to enter into the boundaries of schools and those who somehow able to do so face lot of problems in attaining education. However, Dr. B.R. Ambedkar has not talked about separately on the education of orphans but he has focussed on the education of all without any discrimination.

Babasaheb Ambedkar was of the opinion that through the weapon of education one can come out of slavery, whether the slavery is in economic, social or political terms. It is the education which can help the downtrodden to come up and thus they can improve their social status (Salagare, 2018). The same philosophy can also be applied in providing education to orphans, their lives can also be improved if they will get education through proper ways.

Sociologically, if we will look at orphans, their life is full of struggle as well as they faced so many hurdles in their journey of life. However, there are some who find shelter for themselves in the orphanages or in other Child Care Institutions which tries to provide them homely atmosphere with good education. Some remains on the street without education and shelter over their heads. Though, a number of steps have been taken by Govt. agencies and Non- Governmental Organizations for the welfare of these penurious children. International Organizations like SOS Children's Villages are working tirelessly for the well-being of these orphaned and abandoned children all over the world.

No matter, how weak a child is, he or she cannot be weaker than that child who is living without parents and has lost both parents due to any tragedy, struggling to live in this cruel and ugly world. These orphans need inclusion in every aspect from the state (timesofindia). According to UNICEF an Orphan is *a child who is below 18 years and has lost one or both parents* (unicef.org). It is unfortunate that India is a country where there is the largest population of orphans and it is over 2 crore which is more than the total population of Sri Lanka and these children are facing so many problems ranging from their food to education. Orphans constitute the most susceptible section of the society. Even if Orphans live in an Institution or in a substitute family they are just like prisoners of their own dependency (Ennew, 2005).

The abandonment and orphanhood are the threatening issues which almost every nation of the world is facing. In country like India where we have the largest population of orphans and the frequency is increasing at a rapid rate every day. Orphans are confronting with number of problems and have no one to look after (Tiyagi, 2017). The children who are without any primary care giver in their lives are more prone to health risks and discernment and exploitation (UNICEF, 2004)

Universally, it is found that a child who has not received education will be deprived in many ways and cannot make his or her full contribution towards nation's development (Wakhweya et al., 2002). Orphans face never-ending struggle in their lives. In many researches, it has been found that orphans perform poor in the academics because of the problems to which they come across every day. It is also found that orphaned children receive a very little or minimal support from the sponsors or Government to deal with the challenges which hamper their education. Since, orphans lack basic necessities which a child needs i.e., love of their mother and father, good shelter, cloths and food. The lack of all these things inculcate the feeling of

inferiority and shamefulness among orphans which in turn affects their performances in every sphere of their lives. As we know that motivation is the key to success which orphans lack that could be the one reason of their low performance in the class (Oyedele et al., 2016). The difference between the orphans and non-orphans can be seen in their educational performance. The non-orphans do better than orphans in their academics (Tefera et al., 2019).

The death of the parent is the main root cause of the low performance of the orphaned in academics and most of the orphans leave their education at an early age and they shoulder the responsibility of taking care of their younger siblings and most of these children engage in child labour market. So, it can be said that when a child lost his or her parents, it negatively affects his or her educational life.

The major challenges which an orphan faces in his or her life are negative health, poor educational background, not only this much they also struggle to meet their basic requirements of food, education and shelter. Despite of this, they also experience a kind of social stigma which also results their bullying at school. The main cause of low academic performance and school dropout came into light from the existing literature is that orphaned children are not supposed to live in a permanent household, they often move from one place to another which ultimately disrupts their educational and school life (Tadese, 2003). Again, there are some differences noticed among the challenges which orphans face. If we will look into the condition of AIDS orphaned whose parents have died because of AIDS. They are more stigmatized than non-AIDS orphans. They face multidimensional difficulties. Such children are more vulnerable and are at more risk of leaving their education or failing in the school. So, this way they lose one of the fundamental rights to access education and these children are again at the risk of being excluded from the mainstream society (Akbar, 2001).

Dr. Babasaheb Ambedkar: Education As A Fundamental Right

It is the education over which strong nation can be built. It contributes much in the development of the society. The Right to Education Act, 2009 which stands for providing every child free and compulsory elementary education which comes under the Article 21-A of the Indian Constitution and it came into force on 1 April, 2010. Before coming to this, it can also be seen in the Indian Constitution apparently that the Father of the Indian Constitution Dr. B.R. Ambedkar has made his tremendous contribution to provide free and compulsory education to children from 6 to 14 years by putting this provision in the Directive Principles of State Policy

under the Article 45 of the Indian Constitution (Chakrapani, 2013). So, it can be analysed that several efforts have been made by Ambedkar in order to make India an egalitarian society.

Objective

1. To look into the problems of orphans in getting education.

Methodology

The present research paper is based on secondary sources. Data is collected from various research papers, Govt. sites and from other internet sources.

Results

The major challenges which orphan children are facing in their lives are related to poor health conditions, food, clothes and shelter and their stigmatized identity in the society. These children are not safe within the boundaries of schools as well as in the outer world. Even in the school their bullying takes place, all these are the major barrier in the educational life of an orphan. Because of all these factors, either orphaned children fail in the school or they leave the school permanently. This is how these children are denied to get access of their fundamental right of education which is ultimately making their condition vulnerable.

Discussion

In order to improve the social status of orphans, today India needs to think about the education of orphans just like Babasaheb Ambedkar had given his opinion over the education of Dalits. He was of the view that it is the education which can make our society egalitarian. As B.R. Ambedkar had talked about setting up of separate free hostels provisions for untouchables. Similarly, Govt. should adopt the same model for the education and upliftment of orphans in our society. Government should enhance the quality of already established hostels, schools and residential places of orphans with respect to their education and other related things and also need to establish new free hostels equipped with required infrastructure with a special focus on their education. The school teacher should also be trained in such a manner so that they can provide adequate help to orphaned children to improve their academic performance. Some special programmes are needed to make people sensitize to deal with orphans of the society. It ultimately reduces the level of stigma attached to these children. In every district, there should be separate hostel facilities for orphaned children so that they can meet their basic requirements of their life without any difficulty. In schools, there should be the provision of counselling to orphans so that they can easily come out from the traumatic experiences of their lives. As Babasaheb Ambedkar

realized the need of reservation for marginalized communities such as Scheduled Caste, Scheduled Tribe and OBC's. Similarly, there is a dire need of reservation to Orphans also so that they can also improve their social status in the society.

Limitations

India has very little data available about those orphans who are not the part of Child Care Institutions. So, there is also a need to identify the exact figure of orphans as very little is known about those who are not enrolled in any Child Care Institute or school. So, there is also a requirement to look into the conditions of those children who are living without any support in the society. The present research is only limited to the educational aspect of the orphans those who are enrolled in schools. So, further research should be done on orphans which is needed to know about the condition of orphans in other aspects of their life.

Conclusion

The present study indicated that there are several problems faced by orphans in their lives which ultimately affects their educational achievements and these problems are lack of love, motivation, food, shelter, bullying at school, exploitation in the society and social stigma attached with them. The difference can also be seen in the academic performance of orphans as they don't perform better than non-orphans.

References

2. Akbar, H. W. (2002), *A study of the educational difficulties experienced by AIDS orphans in 5 Ugandan Secondary schools*, Ph.D Thesis, United Kingdom: University of Birmingham.
3. Chkrapani, P., (2013). "Empowerment of Marginalized Communities: Role of ODL in India" in Hadke, P., (ed.), *Dr. Baba Saheb Ambedkar's Human Rights, Socio- Economic Policies and Affirmative Action*, Nagpur: Sanjog Tupe.
4. Ennew, J. 2005. "Prisoners of Childhood: Orphans and economic dependency", in Qvortrup, J. (ed.), *Studies in Modern Childhood: Society, Agency, Culture*, London: Palgrave, pp.128-146.
5. Oyedele, V., Chikwature, W., & Manyange, P. (2016), "Challenges Facing Orphaned Students and the Effects on Academic Performance in O-Level Commerce at Samaringa Cluster Secondary Schools", *International Journal of Academic Research and Reflection*, 4(3): 37-45.

6. Salagare, M. B., 2018, “Dr. BR Ambedkar’s views on Education”. DOI: 10.13140/RG.2.2.29516.31360
7. Tadesse, M. (2003), Educational Challenges of AIDS orphaned children and possible solutions in Addis Ababa, Ph.D Thesis, Ethiopia: Addis Ababa University, School of Graduate Studies.
8. Tefera, B. S., & Refu, A. T. (2019), “Orphan Children’s School Performance, Hindering Challenges and the Role of the School (In the Case of Some Selected Primary Schools in Iluababor Zone, Ethiopia)”, *International Journal of Multicultural and Multireligious Understanding*, 6(3): 314-330.
9. Tyagi, R. (2017), “Transforming Institutions into Functioning, Loving Children's Homes a Narrative by Miracle Foundation India”, *Institutionalised Children Explorations and Beyond*, 4(1): 78-88.
10. UNICEF 2004: The state of the world’s children 2004. (www.unicef.org)
11. Wakhweya, A., Kateregga, C., Konde-Lule, J., Mukyala, R., Sabin, L., Williams, M., & Heggenhougen, K. (2002). Situation analysis of orphans in Uganda. *Orphans and their households: Caring for the future–today*. Kampala: Ministry of Gender, Labour, and Social Development and the Uganda AIDS Commission.
12. mhrd.gov.in
13. <https://timesofindia-indiatimes-com.cdn.ampproject.org>

4. Dr. Baba Saheb Ambedkar Contribution to Dalit Movement: A Historical Step

Dr. Anju Tiwari

Assistant Professor (History), Dr. C. V. Raman University, Kota, Bilaspur, Chhattisgarh.

Introduction

Varna and caste system is a yet very unique and critical phases of Hindu religion in Indian Society and culture. Basically Varna are divided in four part such as Brahmins, Kapatrias, Vaishyas and Sudras. Today Dalit are belonging to sudra Varna. The intense and gradula rise and growth of Dalit consciousness and movements was a crucial feature of British India. The pace and possibility of change was however in different area of India, leading to uneven and unordered development of Dalit movement across the country before independence period. While part of Southern and Western India experienced powerful movement demanding for the upgrade in social, economical and political status under the important leaders, like Dr.B.R. Ambedkar . These were aparent by their truancy in large part of northern India.

Many leadership factors were responsible for the very slow development of Dalits . Certain attributes of the caste in feudal regions, together with its strong and never changing appearance created a climate for emergence of a movement . The leaders of Mahatma Gandhi, Congress during the national movement in this region did not encourage the rise of untouchable movement. Dr. B. R. Ambedkar pleads for the Dalit in the second round table conference held in 1931 in London and demanded for Equal right for scheduled caste like separate representation, equal Socio-economic and political opportunities for the scheduled castes communities in general, but Mahatma Gandhi's reaction to Dr. Ambedkar demands was not satisfactory . Because at that moment mahatma Gandhi was wanted to unite whole country despite of any kind of separation.

But the British Govt took Mahatma Gandhi's words lightly and ultimately declared separate for scheduled castes .England on 18 August, 1932 that he would fast unto death from 20th September, 1932 if Government did not revoke separate electorate for the Dalit's But as the response was not satisfactory. The country from one and to the other was started by this news. Visitor's, leaders and friends began to call upon Dr. Ambedkar. He came to talk on the matter. Earnest and strenuous negotiations were started. At the last in a cordial atmosphere the agreement

was signed on 24 September, 1932 and its famous in history as the “Poona Pact” on behalf of the caste Hindu, Malviya signed it. According to this pact, seats were reserved for scheduled caste and scheduled tribes in general elections in both central and provincial legislatures. This agreement was unanimously accepted at the meeting of the both leaders of Hindus and Dalit’s on September 24, at Poona and Mahatma Gandhi and other Hindu leader was requested to British Government to withdraw of creating separate electorates for the Scheduled caste and Scheduled tribe

Objective of the Study

The present study basically is an exploratory study which is based on the primary as well as secondary data of information for systematization, analysis and conclusion. In the regarding Socio-economic and Political development, Human rights awareness and their opinion regarding Dr. B. R. Ambedkar movement for their development and increasing of Human rights. The constitution of India, census of India, relevant newspaper, Journals, Books, magazines etc. Have been made use as secondary data. The main objective of the study is

- Impact of Dr. B. R. Ambedkar movement on the development of present Dalit and there conditions.
- To find out present Socio-economic and political status of Dalit’s and the condition in which they are living .

Dr. Ambedkar struggle for Dalit’s Rights

Dr. Ambedkar adopted various means to protect and safeguard to Dalit Human rights in India. Dr. B. R. Ambedkar starts the movement against Dalit discrimination by creating public opinion through his writings and ideology in several periodicals such as Mook Nayak, Bahishkrit Bharat, Equality for peoples, which he started for the protection of Dalit rights. Dr. B. R. Ambedkar organized the Dalit rally to assert their legal rights to take water from the chowder tank. The chowder tank of Mahad was made a public tank in 1869. In 1923 the Bombay legislative council passed a resolution to the effect that the Dalit’s be allowed to use all public watering places. The Mahad munisciplity passed a resolution on 5 January 1927 to effect that the municipality had no objection to allowing the Dalit’s to use the tank. Baba sahib Bhim Rao Ambedkar fought for the right of workers and peasants. In the late 1920 and especially in the 1930s when he had formed his independent labour party, he took up the cause of tenants (from both the Dalit Mahars and the caste Hindu Kunbis) in the Konkan region of Maharashtra. With

the supports of radicals then in the congress Socialist Party, the Independent labour party organised a huge march of 20,000 peasants to Mumbai in 1938, the largest pre independence peasant mobilization in the region. In the same year, Dr. B. R. Ambedkar joined with the communists to organise a strike Mumbai textile workers in protest against a bill about to be introduced by the British government to curb labor strikes. Dr. Ambedkar took the lead in condemning the bill in the assembly and argued that the right to strike was simply another name for the right to freedom of assembly.

Baba Saheb Ambedkar Movement for Dalit's Protection in British Period

Baba saheb demand for safeguards and protection of Dalit's has a long history dating the Montague-Chelmsford reform in the during of 1919 of the British period. Dr. Ambedkar had been closely involved in the struggle to give Scheduled caste and scheduled tribe people solid statutory safeguard. He was a delegate at the Round table conference in London, where he asked for separate electorate for the Dalit's. It is not a surprise that subsequently Ambedkar show to it that the welfare and development of Scheduled caste & scheduled tribes were guaranteed in the 1949 constitution of India in the form of reservation in various fields such as legislative, employment and education etc. Dr. B.R. Ambedkar was a great champion of the Dalit because he succeeded in turning the depressed class movement into a revolutionary movement throughout India. But today has witnessed the oppressed classes walking on the streets of cities and villages with confidence and poise of course many despicable acts of discrimination and violence against the Dalit's still occurring.

States Measures for Dalit Development by Baba Sahab Ambedkar: Dr. B. R. Ambedkar was the first law minister of independence India. He was appointed chairman of the drafting committee of our national constitution. The text prepared by Ambedkar provided constitutional protection for a wide range of civil liberties for each people, citizens including freedom of religion, the abolition of untouchability and outlawing all forms of discrimination. He had a real visionary towards the basic and fundamental rights of Indian citizens and upliftment of scheduled caste, scheduled tribes and backward caste. He made several provisions in the form of articles in Indian constitution for development and upliftment of depressed caste peoples.

Article 15 of the Indian constitution gives fundamental right to all citizens against any form of discrimination either by state or by any citizen on the basis of sex, caste, religion, age, race, language, nomenclature and place of birth. Article 15 of the constitution of India declares

the “Nothing can prevent the state from making any special provision for the advancement of any socially and educationally, politically backward castes of citizens or for scheduled caste and scheduled tribes. Article 16 states that “Nothing in the article shall prevent the state from considering any unfilled vacancies of year which are reserved for being filled in that year in accordance with any provision for reservation made under clause or clause as a separate class of vacancies shall not be considered together with the vacancies of the year in which they are being filled up for determining the ceiling of 49% reservation on total number of vacancies of the year.” Article 17 of the constitution declares that “untouchability is abolished and its practice in any form is forbidden. Article 332 in the constitution of India states about the reserved seats of scheduled caste and scheduled tribes in legislative assemblies of the states. 73rd constitutional amendment in article 243 declares that “Panchayati raj system must have proportionate representation of scheduled caste and scheduled tribes. Such reservation should also apply in the case of chairperson and deputy chairperson of their bodies”. Beside these several programmes of the Indian state in the form of grants, scholarship, loans, stipends etc. are being provided for depressed peoples.

Dr. Bhim Rao Ambedkar was a Socialist Leader

That is true Dr. Ambedkar was a socialist to the core of his heart. The disappointing relation with communist movement stands as the single most unlucky paradox of the contemporary Indian society. It did not come out of much of ideological differences, which certainly existed in the form of certain unclear theoretical constructs in the mind of Baba Sahab Ambedkar as from the attitudes of communist leaders towards the Dalit movement. These leaders in the trade unions of Bombay dogmatically regarded the caste question as an unimportant super structural issue which would automatically disappear when the revolution takes place. Their orthodox outlook regarding untouchability, caste, disparity, discrimination was the basis on which Dr. Ambedkar entire thesis on communism was formed. The legacy to identify Marxism with its self-appointed practitioners still appears to be followed by Dalits. They cite examples of parliamentary communist parties to show the lacuna or inapplicability of Marxism. It is necessary for them to understand that Marxism intrinsically solicits criticism but it presupposes its careful study.

All the aspects of Dr. Ambedkar disagreements with communism it cannot be ruled out that B. R. Ambedkar was not a socialist. But he was a socialist of a different kind. One of his

prime conflicts with Marx “dictatorship of the proletariat; which he condemned saying that dictatorship any kind is unethical. His stood for greater democracy of, by, for and among the oppressed ones in every field

Dr. Ambedkar was also an advocate of Dalit’s and women’s rights. He struggled for Dalit’s, woman and depressed people’s liberation from the caste entered patriarchal system. At the conference of weaker sections of woman in Nagpur (Maharashtra) in 1942, he started: let every girl who marries stand by her husband’s friends and equal and refuse to be his slave.”

Condition of Dalit’s after Dr. Ambedkar: The condition of Dalit’s movement after Baba Sahab had witnessed many ups and downs. On one side a categorical awakening among the dalits had grown beyond all levels of history and on the other it has somewhere stagnant after Dr. Ambedkar mainly due to ideological deposition of stagnation. It would be opportune to look at the post Baba Sahab Ambedkar the Dalit movement and do a stock taking of the changes within the Dalit’s politics to under the phenomenon. Gatede says ups and downs through which the Dalit politics passed through after the death of Baba Saheb can be broadly divided International Journal of Current Research and Modern Education into three phase-rise and fall of the republication party, emergence of the Dalit’s panthers and thirdly the assertion of Dalit’s for political power and their consequent refusal to remain satisfied merely with education and job opportunities arising out of the policy of reservation.

Conclusion

Actually Baba Saheb Dr. B.R. Ambedkar was a great human rights leader. who I believe must be considered the greatest Indian of the millennium, was a fighter for human rights not only for the most oppressed section of Dalit’s but all the Indian caste opposed groups for workers and farmers and for women. Dr. Ambedkar is India’s foremost human rights activist in 20th century. He is an emancipator, scholar, extraordinary social reformer a true champion of human rights. Dr. Ambedkar provides equal rights for all citizen in Indian constitution. But the caste dissemination and untouchability somehow and others are still playing negative roles from different parts of the society. Untouchability is a crime against humanity, The constitution of India is designed in such a way that all citizens are equal before it. Our nation facing different sorts of socio economic, educational and political evils in the society and only the effective implementation of the constitution in its real spirit can overcome them. The Dalit’s also will have to come forward and

to labour hard in all social, economical, educational, political area to complete with the other members of the society.

Reference

1. Dhananjay Keer:-Ambedkar: life and mission, Bomaby popular publication 1962.
2. Teltumbde Anand: Ambedkar and post Ambedkar Dalit movement, Sugawa Prakashan, Pune, 1997
3. Zelliott, Eleanor: From untouchable to dalit: Essay on the Ambedkar movement, Manohar publication (1992), New Delhi, P.268.
4. Omvedt Gail: "Dalit and Democratic Revolution", New Delhi: Sage publication (1988)
5. Shyamlal and Saxena K.S. editors: Ambedkar and Nation building, Rawat publication, New Delhi (1998), Page 254.
6. Matheue Thomes: - "Ambedkar" Reform or revolution", Segmnet books, New Delhi 1991.
7. Kumar, Vivek: "Situating Dalit in Indian society. Sociological bulletin 54(3), Sep Dec (2005) & 514,

5. B. R. Ambedkar and Women Empowerment

Dr. G. Sreenivasulu

Lecturer in Political Science, Govt Degree College, Kodur (RS) Kadapa.

Introduction

Bhimrao Ramji Ambedkar (14 April 1891 – 6 December 1956), popularly known as **Babasaheb Ambedkar**, was an Indian jurist, economist, politician and social reformer who inspired the Dalit Buddhist movement and campaigned against social discrimination towards the untouchables (*Dalits*), while also supporting the rights of women and labour. He was independent India's first law and justice minister, the architect of the Constitution of India, and a founding father of the Republic of India. In India and elsewhere, he was often called *Babasaheb*, meaning "respected father" in Marathi and Hindi.

Ambedkar was a prolific student earning doctorates in economics from both Columbia University and the London School of Economics and gained a reputation as a scholar for his research in law, economics, and political science. In his early career, he was an economist, professor, and lawyer. His later life was marked by his political activities; he became involved in campaigning and negotiations for India's independence, publishing journals, advocating political rights and social freedom for Dalits, and contributing significantly to the establishment of the state of India. In 1956, he converted to Buddhism initiating mass conversions of Dalits. He died six months shortly after conversion.

In 1990, the Bharat Ratna, India's highest civilian award, was posthumously conferred upon Ambedkar. Ambedkar's legacy includes numerous memorials and depictions in popular culture.

Empowerment can be defined as a person's capacity to make effective choices and to transform choices into desired actions and outcomes. The extent to which a person is empowered is influenced by the capacity of the person to make a choice and the degree of opportunities that exist in the context of making choice. Thus, empowerment can be measured by indicators that indicate asset endowments like psychological, informational, organizational, material, social, financial or human; and the degree of opportunity like the presence and operation of formal and informal institutions, including the laws, regulatory frameworks, and norms governing behaviour'.

The empowerment of women requires the challenging of patriarchal power relations that result in women having less control over material assets and intellectual resources. Women participate in their own oppression so that they must first become aware of the ideology that legitimizes male domination. The empowerment process starts from within but access to new ideas and information will come from external agents. With new consciousness and the strength of solidarity, women can assert their right to control resources and to participate equally in decision making. Ultimately, women's empowerment must become a force that is an organized mass movement which challenges and transforms existing power relations in society.

Women Empowerment: women empowerment refers to increase in spiritual, political, social or economic strength of individuals and communities. However, any attempt for empowerment would have to embrace at least the following principles; 1. Equality of rights between men and women must be enshrined as a fundamental principle, 2. Must be regarded as agents and beneficiaries of change, and 3. Gender just we development model aiming at creating opportunities for women and men.

Education is key by which a person can develop and change. Dr. Ambedkar put all his efforts to bring the section of society in main stream of education without any discrimination or biases. Dr. Ambedkar saw the women as the most victimized in the society. He pointed out the Manusmriti as architect of bindings, restrictions on women. He opposes the Manusmriti and its teachings. The burning of this book was historical incident which paved path to liberty to women from traditional evil practices. The journal “Muknayak” (1920) and “Bahishkrut Bharat” (1927) were started to focus on gender relation and differences constructed by Hindu order. On another front Dr. B.R. Ambedkar laid down the foundation of concrete efforts by codifying the common civil code for Hindus. On common civil code justice Chandrachud Singh, chief justice of India said “a common civil code will help the cause of national integration by removing disparity loyalties to law which have conflicting ideologies”.

Codifying the common civil code for Hindu was the first step towards recognition and empowerment of women. Hindu law in respect of marriage, divorce and succession rationalized and restored the dignity to women. For women development adequate inclusion of rights in constitution of India indicates the concrete step towards women it includes article, 14, 15, 15 (3), 42, 46, 47, 243D (3) and 243 R (4). The constitution of India made a deliberate radical departure from the inherited social system by granting to women equal social and political status.

Dr. B.R Ambedkar's Role in Women Empowerment

Dr. Ambedkar thought that the society must be based on reason and not on the basis of caste system, he said that by education, intercaste marriage and by inter-dining only one can eradicate caste system and patriarchy maintained by endogamy. The gender equality, gender mainstreaming, financial freedom are the essential aspects of women empowerment. Dr. B.R Ambedkar realised this at his time and included in the process of social reforms. Dr. B.R Ambedkar started involving women in the struggle, for eradication of caste systems and upliftment of the underprivileged sections. He realised that this could not be achieved without liberating the women themselves. He motivated women and addressed them to participate in struggle against caste prejudices. During the Poona Satyagrah struggle, women marched in the procession along with men. He encouraged women to organise themselves. Impressed by the large gathering of women at women's conference held at Nagpur on 4th July, he told women to be progressive and abolish traditionalism, ritualism and customary habits, which were detrimental to their progress.

Status of Women in Ambedkar's era: Need for Women Empowerment

As has been discussed in the preceding chapter, during Ambedkar's era; on the social plane Indian society was based on the principle of graded inequality which meant elevation for some and degradation for others. Existence of social and legal inequalities gave rise to social reform movements and the Indian society began to demonstrate signs of changes since early 19th century. The British followed a policy of non-interference in customary practices and thus realization of women's right in private sphere remained a difficult task. Legal enactments during British Raj were limited to those customs that were grossly unacceptable from the view-points of western rationality.

The position of women in their private spheres, that is the core issues with respect to gender relations within family and society, generated voices of protest against customary practices like 'Sati', "Widow remarriages", "Female education" etc. The use of English language as a medium of instruction significantly affected the education system. The newly emerging middle class made use of English language as a gateway to the ideology of liberalism which enshrined the values of liberty, equality, respect for individual, secularism etc.

The educational development during the late 18th century and early 19th century led to a number of socio-religious movements in 19th century. The social reform movement has been regarded as a key to the intellectual process that went into the making of modern India. The issues

which attracted the attention of the 19th century social reformers were sati, the ill treatment of widows, the ban on widow marriage, polygamy, child marriage, denial of property rights and education to women

The social reformers felt that these social evils should be eradicated by raising consciousness and making people sensitive to the injustice perpetrated on women. The interventions in both public and private spheres were sought through enacting progressive legislations and by granting women access to education. The Brahmo Samaj, founded by Raja Ram Mohan Roy in 1825 emphasized the need to remove deep-rooted gender inequality in religious traditions. The movement led by Brahmo Samaj was to abolish gender inequalities and to provide women's rights well inside private sphere of society. The Samaj fought for abolition of child marriages, removal of polygamy and promoting education for women. The Prarthana Samaj, established in 1867 by M G Ranada, K T Tetang and Bhandarkar championed the cause of women.

The Arya Samaj, established in 1875 by Dayanand Saraswati, attempted reforms of the caste system and status of women. The ideal of reviving Vedic social consciousness was meant to remove many gender inequalities that developed post Vedic era. This approach was also propelled by Annie Besant, Swami Vivekananda who believed that ideal society for women can be created by reviving old Vedic society.

The onset of 20th century saw women performing an expanded role in the society. The necessities of nationalist struggle brought women into the public sphere. The process of involvement of women was initiated during the partition of Bengal in 1905. The position and attitude towards women were changed substantially as a fall out of women participation in Nationalist Movement during Gandhian era. Indian women took active part in non-cooperation movement (1921), civil disobedience movement (1930) through picketing, boycotting of foreign goods, non-violence protest etc. Women also contributed in the Nationalist movement by editing and distributing banned publications, coordinating mass agitations, carrying out constructive works among depressed class of people etc. This process not only drew women out of their private spheres but also it helped them to organize and fight for their own cause rather than depend upon 'benevolent' men in society to promote their cause.

Women Emancipation and Empowerment: Ambedkar's Ideas and Vision

Ambedkar explained that the inferior position and the subhuman treatment given to women is deeply embedded in the very nature of Hindu social order which does not respect the value of the equality among the individuals and does not recognise the worth of human dignity as according to the Hindu social order even though men are the children 'of Prajapati, the creator of the universe still they are created from different parts of the body of Prajapati. Thereby refusing to recognise that men no matter how profoundly they differ as individuals in capacity and character they are equally entitled as human beings.

As against the principle of equality and fraternity the Hindu social order is based on the three different principles of which Ambedkar finds the first principle of graded inequality as most significant as there is no sphere of life which is not regulated by the principle of graded inequality, women as part of their sex must suffer from this principle and remain as victims of such inequality²⁷. Thus, the inferior position as granted to women and the sub-human treatment given to them, can be explained according to Ambedkar, in terms of very nature of social order which does not respect the value of equality among individuals and which does not recognise the worth of human dignity.

The social order, as fallout of Manusmiriti, aimed at establishing dominance of Brahmins through a system of graded inequality. While this system of graded inequality gave rise differences in class, Ambedkar was of the firm opinion that Manu was also responsible for the fall of Hindu women during post-Vedic era. Criticizing Manu he said *"A women in the eyes of Manu was a thing of no value All the responsibility for the decline and fall of women in India must be fastened upon Manu"*

In his book *'The Rise and fall of Hindu Women' (1988)*, 30 he quoted verses of Manusmiriti to explain the social understanding of the position of women such as women should be looked upon as objects for seducing men (11.213) because they were able to lead astray in this world not only a fool but even a learned man, and were capable of making man a slave of desire and anger (11.214). Thus it would be necessary for men to exert themselves to guard women (IX.16). He also pointed that Manusmiriti painted a picture of women as creatures known for their disposition-love for ornaments, impure desires, wrath, dishonesty, malice and bad conduct (IX.17), which the Lord of creature laid in them at the creation to be such (IX.16). Thus, Manusmiriti pointed out that day and night they must be kept in dependence by the males of their

family and if they attach themselves to sexual enjoyments they must be kept under ones control (IX.2). They needed to be controlled vigilantly by their guardians. Manusmriti did not offer the right to divorce to women (IX.45). A wife did not enjoy right over property, women were reduced to the level of a slave in the matter of property by Manu (IX.416). The husband had the right to beat his wife (VIII.299). She had no right in selecting a spouse of her own choice and she had to worship her husband faithfully (V.154).

In his written reply to an article in the Eve's weekly where the writer had charged Buddha (563 BC- 483 BC) responsible for the downfall of women in India, Ambedkar commented that Buddha did not shun women and express any disdain for them. Before the advent of Buddha, the right to acquire knowledge was denied to women which was supposed to be the birth right of all human beings. Women were denied the right to realize her spiritual potentiality. Buddha by admitting woman to the life of parivrajaka (an ascetic) removed both these wrongs in one stroke. He gave them the right to acquire knowledge as well as to realize their spiritual potentialities along with men. This revolutionary effort of his brought in India liberation of women which allowed them liberty and dignity. Ambedkar further criticized Manu who was the greatest opponent of Buddhism who put women under restraint. Therefore it was Manu not Buddha he concluded who was responsible for the decline and fall of women in India.

As a student "Castes in India" 36 was the first attempt of Ambedkar to understand and analyse the nature of Indian society and its systematization through the caste structure from the Anthropological point of view. He points out in his paper that the caste system was responsible for women's subordination and exploitation. In order to maintain caste Ambedkar points out that it is essential to prevent marriage from outside the group which shows that a group desirous of making itself into a caste must have the maintenance of numerical equality between marriageable units of the two sexes as the ultimate goal as without it endogamy can no longer be kept intact. The death of one of the partners creates a surplus man or a woman. "Thus both the surplus man and woman constitute a menace to the caste if not taken care of. For not finding suitable partners inside their prescribed circle very likely they will transgress the boundary, marry outside and import offsprings that is foreign to the caste.

Ambedkar even opposed the Indian Muslim purdah system which he believed was contrary to the real purdah system of Islam. He was of the opinion that as a consequence of the purdah system a kind of segregation is brought about in the Muslim women which has

deteriorating effect upon the physical constitution of the Muslim women thereby depriving her of a healthy social life. The isolation of males and females is sure to produce bad effects on the morals of men. He believed that a system, if based on worth, can not justify the permanent denial of education and religious right to women. In a way, what appears from Ambedkar's own perception of the Indian social order, Hindu or Muslim was one of a system where women were denied in various ways, their dues in the society. He was frantically in search of a solution to their evil systems and sought to usher a society based on equality, justice and fraternity.

Ambedkar realised that there was no other way to reform the society except challenging the foundation, Manusmriti and the principle of graded inequality, the society was built upon. He also argued that all problems related to women were manifestation of the system of caste and thus nothing short of a revolutionary step aimed at annihilation of caste could only prove beneficial for women. Here, we find the difference in philosophical foundations of Ambedkar with other contemporary social reformers. Instead of bringing superficial changes and addressing secondary issues like child marriage, sati system, he wanted to attack and destroy the backbone of the menace, the caste system. He wanted to attack the caste and thus bring about change not only for down-trodden but also for women.

Ambedkar was conscious of the social~ economic and political inequalities among men and women in Indian society. Though, he attempted to find the root cause of decline in the status of women in social order, his idea of women empowerment was not confined to social arena.

Broadly viewed, Women Empowerment can be taken as a tool for social, economic and political equality between men and women and developing capability of women by assigning rights that were not available earlier. As has been discussed in the previous chapter, Ambedkar believed that individual is the ultimate goal of the society and growth of every individual is the most important pre-requisite of a free social order. That was the motivation behind his taking the risk of challenging the established traditions of Hindu Society. Having the wider purpose of changing society for the betterment of the down-trodden society including women, Ambedkar found no other way except changing the very mechanism of the social order. He wanted to attack caste and thus bring about change not only for low caste people but also for women.

The contents of Ambedkar's concept of social justice include unity and equality of all human beings, equal worth and respect for men and women. His social idea was to remove man made inequalities of all shape through law, morality and public conscience. A Critical

examination of his writings reveal that he wanted to establish an '*ideal society* ', a "*casteless society* " or a society based on the "*principle of justice* ". Ambedkar tried to find out the evils of the existing social order and then offered his own alternative model of an "ideal society" or a "just society" which could bring complete change in society .This ideal society would be based on "liberty,equality and fraternity".

He wanted to position women as not only a member of the family, also of society. His aim was to re-engineer the society from the grass-root level . He involved state for this purpose through Hindu Code Bill which sought to confer on women the right to property and adoption. These are enabling rights to women, not granted previously in the domain of economy, which was to be conferred through legal means. Although, he attempted, through this bill to put men and women on an equal level in all legal matters, he remarked that "this is in no sense a revolutionary measure; this is not even a radical measure" . In an attempt to formalise and institutionalise his efforts, such a legislative move was taken by him. It is equally interesting to note that Ambedkar while admitting the limitations of the step accepted this to be the basic foundation of empowerment of women.

Ambedkar's idea on women empowerment was not confined to political or economic domain. He not only wanted to ensure social equality between man and man, but also equal status and dignity between man and woman. He also believed in equal status of husband and wife. He advised that women should be on friendly terms with their husbands. He did not agree that there should be a master slave relation between the husband and the wife . In this context, he advocated active participation of women in political activities. He involved women in all his social struggles.

The women's conference, during the Scheduled Caste Federation meetings of 1942, is an important landmark in this course. The conference was presided over by Mrs.Sulochanabai Dongre of Amraoti (Nagpur, July 18 to July 20, 1942). In this conference, Ambedkar advised women to educate their children and remove from them any inferiority complex, not to have too many children; and let every girl who married claimed to be her husband's friend and equal and to refuse to be his slave. He also commented that their dress, their cleanliness and the confidence with which they behaved in the conference brought delight to his heart.

Participation of women at his various conferences remained a distinguished feature of his effort towards women's empowerment. At the scheduled caste conference held at Kanpur on Jan

31, 1944, stressing the values of women's contribution Ambedkar observed that their movement could not succeed unless their women helped actively the work of intensification 5000 women attended the 3rd all India Scheduled Caste Federation which was held on 5th and 6th May 1945. On this occasion women conference under the chairmanship of Mrs. Meenabai Shivraj, Mumbai municipal workers federation was also organized. A gathering of 70,000 men and women loudly cheered at Narc Park, Bombay, on 17 Feb 1946 when Ambedkar rose to inaugurate the election campaign. More than 2000 dalit men and women participated in an agitation launched by scheduled caste federation at Lucknow, 24th and 25th April 1948, to establish political rights as well as equality of all human beings.

Conclusion

Flexibility in the status of women is seen in different ages. In Vedic period she enjoyed the higher status and shared the equal role and responsibilities with men. hereas, the post Vedic period has witnessed tremendous changes and degradation in the women's status. Manu developed the guidelines to determine the behaviour of women and it imposed restriction on women.

The reform movement in India started in colonial period. Britisher supported the reform and number of practices such as Sati system banned. On the contrary emergence of Dr. Babasaheb on the horizon of Indian political and social system has paved path to women empowerment. Due to The efforts of Dr. Babasaheb Ambedkar, number of legislations are enacted and women get legal protection regarding human rights and liberties, it has facilitated socio-economic and political upliftment of women.

References

- **Ambedkar, B R. t 1988.** *Rise and Fall of Hindu Women*. Jullunder: Bhim Patrika Publication, pp.26-28.
- **Ambedkar, B R. 2003.** *Babasaheb Ambedkar Writings and Speeches*. (hereafter referred as B.A. W.S) Vol. 17. Section-2. Bombay: Education Department, Government of Maharastra, p.127.
- **Batliwala, S. 1994.** The Meaning of Women's Empowerment: New Concepts from Action, In **G. Sen, A. Germain and L. C. Chen** (eds.). *Population Policies Reconsidered: Health, Empowerment and Rights*. Boston: Harvard University Press, pp. 127-38.

- **Chowdhary, Rekha. 1997.** Hindu Social Order and Women: Understanding Ambedkar's view.point In Shabbir, Mohd. (ed.) *B R Ambedkar study in law and society.(ed.)* Jaipur:Rawat Publication, pp. 292-293.
- **Ambedkar, B.R. 1989.** *Annihilation of Caste with a reply to Mahatma Gandhi.* In
- Babasahab Ambedkar: Writings and Speeches. Vol. I, compiled by Vasant Moon, Bombay:
- Education Department, Government ofMaharastra, p.57.
- **Desai, Neera..** *Women in ModernIndiq.* Bombay: Vora and Co., pp.136-137.
- Government of India: (2001) “The National Policy for the Empowerment Of Women 2001”, Department of Women and Child Development, Ministry of Human Resource Development, New Delhi,
- **Jatava, DR. 2005.** *Ambedkar Code of Conduct.* Jaipur: ABD publishers, p.122.
- **Ambedkar, B.R. 2006.** Castes in India: Their Mechanism, Genesis and Development. In M. Manoranjan (ed.) *Class, Caste, Gender.* New Delhi: Sage Publications, p.138.

6. Dr. Babasaseb Ambedkars thoughts on Reforming Contemporary Society

Dr. Gajendra M. Kadhav

Head, Department of Sociology, Mahatma Gandhi Atrs. Science & Late N. P. Commerce College,
Armori, Dist. Gadchiroli (MS)

Abstract

Many great men have been born on the holy land of India. He worked hard day and night to transform the society. The improvement in the situation in India is gift of those men. His legacy of service is still an ideal, guide and direction for the people of the country Among such great personalities of India, Dr. Babasaheb Ambedkar's name is also taken with priority and respect. Dr. Babasaheb was a versatile personality. He had perfect knowledge and information of each field. Social, Dr. Babasaheb was a versatile personality. He had perfect knowledge and information of each field. With his infallible oratory and skillful leadership in various fields like social, religious, political, economic, educational, law, journalism, Dr. Babasaheb Ambedkar conveyed the message of bringing the dark life of the exploited into the mainstream. Dr. Babasaheb Ambedkar not only had book knowledge but also reformed the society they also knew how how to bring it. That is why his ideas are so important for the That is why his ideas are betterment of contemporary society.

Keyword : Improvement, contemporary, betterment, priority, versatile

Introduction

Many great men have been born on the holy land of India. He worked hard day and night to transform the society. The improvement in the situation in India is gift of those men. His legacy of service is still an ideal, guide and direction for the people of the country Among such great personalities of India, Dr. Babasaheb Ambedkar's name is also taken with priority and respect. Dr. Babasaheb was a versatile personality. He had perfect knowledge and information of each field. Social, Dr. Babasaheb was a versatile personality. He had perfect knowledge and information of each field. With his infallible oratory and skillful leadership in various fields like social, religious, political, economic, educational, law, journalism, Dr. Babasaheb Ambedkar conveyed the

message of bringing the dark life of the exploited into the mainstream. Dr. Babasaheb Ambedkar not only had book knowledge but also reformed the society they also knew how to bring it.

Dr. Babasaseb Ambedkars thoughts on reforming contemporary society

Dr. Babasaseb Ambedkars on reforming contemporary society can be expressed as follow

Dr. Babasaheb Ambedkar's Political thought and contemporary political system in India

Dr. Babasaheb Ambedkar has expressed his views on political philosophy in many of his articles, books and speeches. These are Babasaheb's political views. His political views are on Swarajya, Nationalism, Democracy, Fundamental Rights, Minority Protection, Socialism, Communism, etc. Dr. Babasaheb Ambedkar's political views still apply to society today. If the contemporary politicians accept their views, India will really develop politically.

Dr. Babasaheb Ambedkar's Thoughts on Liberty

Many thinkers, revolutionaries and political leaders have come up with their own ideas on how to make India independent. According to this thinker, Dr. Babasaheb Ambedkar has also expressed his views on Swarajya. But those thoughts are different from others.

Dr. Babasaheb Ambedkar's Thoughts on fundamental rights

Dr. Babasaheb Ambedkar was strongly opposed to injustice, oppression and injustice. He was strongly opposed to caste discrimination. He used to say in every one of his speeches that caste discrimination is a kid in the society. He understood that society would not be united without destroying this social kid. Dr. Ambedkar was trying to free the people from intellectual and social slavery and bring them into the mainstream of social development.

Dr. Babasaheb Ambedkar's Thoughts on Socialism

Dr. Babasaheb Ambedkar had socialist ideas in mind. He had advocated socialism through many of his writings and speeches. But their socialism was different from that of Russia, China and other communist countries. He did not accept the one-sided socialism of this country. He wanted the socialist system in India to embrace democracy in the political and economic spheres, as well as to establish a socialist system by establishing government ownership of industry.

Dr. Babasaheb Ambedkar's Thoughts on Minority

Dr. Babasaheb Ambedkar's minority views are also very important. Protecting the interests of minorities is Dr. Babasaheb was the focal point of Ambedkar's thought and work. Considering the injustice done to minorities in Indian society, Dr. From the very beginning, Ambedkar was of

the view that the interests of the minorities should be protected and he worked tirelessly for that. He has also protected the interests of minorities in the Indian Constitution.

Thus dr. Babasaheb Ambedkar has expressed his views. Their thoughts are everlasting. That is why he is hailed as the sculptor of modern India.

Reference

- Ambedkar B.R : Annihilation of cast
- Ambedkar B.R : Who were the shudras
- Ambedkar B.R : Budhas and his Dhamma
- Ambedkar B.R: Riddles in Hindusm
- Kasabe Raysaheb : Ambedkar and Marx, Sugava publication ,Pune .
- Bagul Baburav : Ambedkar Bharat, Sugava publication ,Pune.
- Deshpande B.D. : Ambedkar Political Thoughts, Lokvadmay Gruh publication, Mumbai.

7. Economic thoughts of Dr. Babasaheb Ambedkar

Dr. M. S. Patil

Assistant Professor in Commerce, Bhaurao Kakatkar College, Club Road Camp Belgaum
Karnataka.

Dr. H. Y. Kamble

Professor and Chairman, Department of Commerce, Rani Channamma University, Belagavi

Economic Foundation of Dr. Babasaheb Ambedkar

Though Dr. Babasaheb Ambedkar is popularly recognized as an architect of Indian constitution and leader of downtrodden, there is a list of identities to recognize him in many facets and positions. Educationist, social reformer, modern Manu, Social and political thinker, beholder and follower of human rights are the recognitions due to his contributions to various fields. Many people don't know that Dr. Ambedkar was trained in economics. Formal education which he took was about economics. He did MA in Economics in 1915 with other subjects viz., History, Sociology, Philosophy, Politics and Anthropology. He also completed PhD in Economics from Columbia University in 1917. Thereafter he was simultaneously doing his law course and MSc from London Law and London School of Economics. He became Barrister in Law in 1920. In 1920 he completed MSc. He submitted the thesis "Provincial decentralisation of Imperial finance in British India" He also did DSc from London School of Economics in 1923. The thesis submitted for this purpose was "The Problem of Rupee-Its origin and its solution" This thesis was the guiding tool to pass The RBI Act in 1934. Babasaheb was lateron honoured with the degrees LLD and D.Litt. by Columbia University, New York and Osmania University Hyderabad.

Economic thoughts on Monetary Economics

Dr. Ambedkar's dissertation 'The Problem of Rupee : Its Origin and Solution' for which London School of Economics awarded the degree of 'Doctor of Science' in 1921 focused on the monetary economics. In this dissertation, Ambedkar argued that the gold exchange standard doesnot have the stability of gold standard. Gold standard comprises of use of gold in some form, especially coins as a medium of exchange. In gold exchange standard the medium of exchange comprises only paper money which is kept exchangeable at fixed rates with gold and authorities back it up with foreign currency reserves of such countries as are on the gold standard. Ambedkar

criticized Keynes because Keynes favoured gold exchange standard. Under gold standard , additions to the supply of currency are so small that stability is not affected. He also provided the statistical evidence to show that in the Indian context, prices varied much less under the gold standard than under the gold exchange standard. He was of the opinion that there must be some regulator by which the discretion left to the issuer is regulated. He thinks that under gold exchange standard the discretion of the issuer is not regulated and undesirable. There was an argument that the gold exchange standard economises the gold. Ambedkar reasoned to the argument that economising of gold raises its supply, thereby lowering its value and as a depreciating commodity, it then becomes unfit to that extent to function as a standard of value.

Ambedkar proposed that all further coinage of the rupee should be permanently prohibited, suitable gold coin be minted; the ratio between the gold coin and the rupee may be fixed by law and the rupee and the gold coin should not be mutually convertible.

The context in which these currency reforms were suggested by Ambedkar has completely changed. The Indian economy has an altogether different institutional set up now. Yet the essential message of Ambedkar has remained surprisingly timeless. The basic contention of Ambedkar was that there should be some regulator by which the discretion left to the issuer of currency is regulated. In the present economic condition, with unbridled growth of government deficits and their automatic monetization, the need for the effective restraint on liquidity creation is as imperative today as it was then.

In the period 1898 to 1916, gold exchange standard were adopted and more emphasis was given to the external stability i.e. exchange rate stability. In 1914-15, the exchange rate got weak and India was running out of gold to pay back its remittances. Leading to an increase in the demand of rupee, as a result government of India started minting rupee to tackle the situation. This created inflationary pressure in the economy at that period of time. Dr. B.R. Ambedkar studied this matter in depth and commented on whether the gold standard or gold exchange standard would be better for curb the inflation in a country like India. In his doctoral thesis he has mentioned that excess importance was given to exchange rate stability rather than price stability. According to him exchange rate stability will benefit only the trading class not the poor in the economy. Poor will be benefitted only when there is an internal stability. Ambedkar asked a very relevant question, what is the purpose of money? Is it how much gold we can purchase or how much commodities we can purchase out of it. The obvious answer to this is how much

commodities and services we can purchase out of it. According to Babasaheb currency should be stable in terms of commodities not in terms of gold. He was against the concept of linking money supply with gold. He pointed out that Government under gold exchange standard tries to manipulate the currency to keep it at par with the gold value which is not a good idea. Ambedkar was a strong believer of quantity theory of money. He did not like the idea that government should manage the flow of the currency. He was afraid that government will not be able to manage it properly. He was not in favour of giving the power to the government to expand the money supply without expanding the production of goods and services; since it can lead to an unstable currency value. So he strongly opposed the managed currency system and supported gold standards with some modification.

Economic thoughts on Public Finance

In 1925, Dr. B.R. Ambedkar wrote a book on “The Evolution of Provincial Finance in British India”. In this book he has discussed about the origin, development and mechanism of provincial finance. He has also mentioned about the provincial finance under Government of India Act 1919. The period which he has covered in this book is from 1833 to 1921. Babasaheb has talked about the problem with the centralization of government finance in India from 1833 to 1871. He showed that in this period the fiscal system was defective with destructive taxes and the expenditure done by the government was unproductive. After 1858, it was noticed that imperial government as the law maker did not administer the country whereas provincial government who administered the country did not have the power to make the laws. Provincial government used to make the budgets and imperial government had the right to finance these budgets. Practically speaking provincial government did not have power to raise its own funds and to create appointments in services. This gave the opportunity to the government of India to interfere in the provincial administrative works. By this Government of India started misusing its expenditures, as a result they came under a terrible financial strain. Ultimately, in 1871, it was decided that provincial government should prepare its own revenue and expenditure budget. There onwards from 1871 to 1876 provincial finance was introduced in the form of a budget. Under this Diarchy system financial responsibilities were divided among the provincial government and the centre. Ambedkar analysed that this kind of scheme led to high taxation which was more dangerous. Period from 1877 to 1881 was considered as the second phase of provincial finance. In this period the provincial government used to produce the budget based on the assigned revenue. In the third

phase of the provincial finance the budget was based on the shared revenue. According to Babasaheb earlier style of budgeting had a very little room for the expansion of revenue, but this new style of budgeting based on shared revenue does not possess this kind of drawback. The revenue collected by either imperial government or provinces was shared among them. This scheme lasted for 38 years and after that in 1921 major fiscal reform was introduced. This book summarizes the history of the financial relation between the province and government of India. Students who are studying the financial relation between state and the centre still find this book as an important text. This book was referred as an important source by the Finance Commission of India.

Abolition of Khoti System

Ambedkar moved a bill against the Khoti system in 1937 which was popularly known as “The Khoti Abolition Act”. British government used to appoint some powerful persons known as Khots. They were middlemen between the tax collector (British Government) and tax payer (Inferior land holders). Khots were responsible to hand over the tax revenue collected for the entire empire to the British government, for this they used to freely exploit and abuse the inferior land holders. This kind of system was more prominent in the Ratnagiri district, Kolaba district and Thana district. Ambedkar wanted that this anti Khoti bill should be enacted in the complete Bombay Presidency.

Ambedkar’s Canons of Public Expenditure

In 1945, while discussing about the functions of Comptroller and Auditor General of India Ambedkar pointed out that government should responsibly spend the public funds. The revenue which is collected from the public should be spend according to rules & regulations and due respect should be given to faithfulness, wisdom and economy. These principles of spending the public fund are known as Ambedkar’s Canon of Public Expenditure. The dictionary meanings of faith are duty, commitment and promise. It’s the duty of the government to provide the basic amenities to the tax payers. We know that it is easy to deceive the public as the public investment has a long gestation lag period. So, every government should keep in mind that public has an immense faith in them and they should be committed to provide roads, medical facilities, law and order to its citizens. Ambedker pointed out that even though the intention of spending the public funds may be correct but still if it is not used wisely then also the planning fails. In this context he has talked about wisdom of Government to spend the public money. By wisdom he was

indicating about the knowledge and experience which should be used while spending the public funds in a better way. Another important principle of Ambedkar's canon was economy. By economy he didn't mean less public spending, it basically means how the government should spend the public funds so that they are used optimally.

Economic thoughts on agricultural economics

The major problem of Indian agriculture is low productivity of land. One of the main reasons of low productivity is the small land holdings by the farmers. In 1917, a committee was formed to give suggestions on the problem of small holding in the Baroda state. The committee gave a suggestion to consolidate the holding which can be cultivated by an individual farmer under the administrative measures. Dr.B.R.Ambedkar was in favour of consolidation of land holdings but according to him it should be state owned. State should acquire all the agricultural land from the private players, owners, tenants or mortgagers and pay them the right compensation, after consolidating the acquired land it should allocate this land in a standard size to the original cultivators without any discrimination based on caste, creed and religion. Ambedkar questioned about what could be the right size of the land holding to increase the land productivity. He pointed out that land is only one factor of production, in order to increase the farm productivity other factors like capital and labour should be rightly mix with the land. Every factor is responsible for the low productivity of land. Because of insufficient capital, surplus labour, and deficient irrigation there is low agriculture productivity in India. Ambedkar in his paper on "Small Holdings in India and their Remedies (1918)" has suggested state owned cooperative farming and industrialisation as the remedial measures. Cooperative farming is a consolidation of land holdings by the farmers who collectively are willing to cultivate the land, but it should be under the rule and regulation of the government. This kind of practice not only increases the productivity it will also reduce the cost of production. According to Ambedkar, industrialisation can be an alternate solution for the vast disguised unemployment in Indian agricultural sector. Surplus labour in the agriculture sector can be transferred to manufacturing sector. This will not only increase the productivity in agricultural sector it will also increase the production of the capital goods. This will indirectly help in the reduction of poverty and inequality. In 1950's, Noble Laureate Prof. Arthur Lewis formulated a dual economy model in which he tried to explain the same concept of shifting

Caste Economics : Division of Labour and Division of Labourers

In 1936, Ambedkar wrote a speech titled “Annihilation of Caste” unfortunately this remained undelivered. This speech was later on published in 1937. In this speech he had talked about what was implied by the caste system. According to Ambedkar, the division of work is essential for management of work. Hence, the work ie., labour was divided among the people. But later on it was imposed by the system that the successors have to do the same work as done by their predecessors. He criticized the division of people on the basis of caste. He demonstrated logical flaws in the caste system. He emphasized that the caste system is not only the division of labour but also it is the division of labourers. Moreover, the division of labourers was not based on the natural aptitude or acquired skills but on the dogma of predestination. He argued that the caste system is the natural outcome of some religious beliefs which have the sanction of the shstras.

He believes that caste system is the most important hurdle in the economic development of India. He states that the caste system has direct relationship with the migration of capital and labour. In Maharashtra, the system of mahar vatan was present according to which a small piece of land was given to mahars for cultivation and they were allowed to stay outside the villages. They are supposed to serve the uppercaste people and do the duties like night watchman, removing dead bodies of animals, track the thieves and messengers, etc. This made them dependent on the mercy of the villagers and feudal lords. Babasaheb was dissatisfied with this system. Hence, he introduced a bill in the Bombay Legislative council to abolish “Mahar Watan”, which has made the Mahar communities in Maharashtra slaves of the feudal lords.

This caste will not come alone. It was attached with standard of living, income level, food habits, nature of work, place of residence, right to education, etc. It was the threat to inclusive growth. It had detached the one group of society from other group. Hence, Babasaheb related division of society with the division of wealth. He believed that advocating perpetuation of traditional socio economic pattern proved to be detrimental to economic development.

Ambedkar was beholder of human rights. He denounced untouchability. He thought that untouchability was not only matter of social system but it was also the matter of economic system. It was worse than slavery. In slavery, the master takes the responsibility to feed, clothe and house the slave. But in untouchability, the upper caste takes no responsibility for the

maintenance of the untouchables. Hence, Ambedkar argued that untouchability is the system of uncontrolled economic exploitation which led to infamy.

Water and Power policy

Dr. Ambedkar believed that water resources should be managed by Central Government to avoid the disputes between states. He proposed “Inter-State Water Disputes Act” in 1956 to settle the dispute between the states. Dr. B.R. Ambedkar initiated new water and power policy. The main purpose of this policy was to utilise the water resources of the country in an optimal way. He believed that it is only the multipurpose projects which can solve the problems of floods, power shortage, and irrigation. For the development of the country Babasaheb initiated the idea of building the first multipurpose river valley project known as Damodar Valley Project in Bengal and Bihar. As a part of national water policy the objectives of this project was to control the floods in the surrounded regions, to help the farmers through irrigation, to control the famines and to solve the problem of power supply. This is not the single river valley project which was architected by Dr. B.R. Ambedkar the other projects were Bhakra-Nagal Dam (Highest gravity dam), Hirakud Dam (Longest major earthen dam) and Sone river valley project.

Contribution to labour laws

Ambedkar has brought several labour reforms during his time. In the 7th session of the Indian labour conference in 1942, he initiated to reduce the factory working hours from 12 to 8. In the same year, at the Tripartite Labour Conference Babasaheb was involved in building Plenary Conference and Standing Advisory Committee to settle the industrial disputes between employees and employers. He also propounded to establish employment exchanges and to collect the statistical data under Industrial Statistics Act. Ambedkar has also worked for the upliftment of women's in the society. He has framed laws like “Mines Maternity Benefit Act” and “Women and Child Labour Protection Act”. He tried removing the ban on women employment in the coal mines. He also established “Women Labour Welfare Fund” and fought to give maternity benefits to the women labourers. In 1943, Dr. B.R. Ambedkar framed the amendment in the Trade Union Act of 1926. In the amendment he put forth the compulsory recognition of the trade union by the employers. India was the first nation to think about the employees insurance and the credit goes to the great visionary Dr. Ambedkar. This Employees State Insurance insured the employees against the medical, physical disability and injuries during the work. In 1944, Babasaheb enacted a bill for the safety of the employees working in the coal mines. This bill was known as Coal Safety

Amendment Bill. In 1945, he introduced Mica Mines Labour Fund which helped the employees in the coal mines to get housing, water, education, entertainment, transport facilities, medical facilities and better health and sanitation.

Socialism

Dr. B.R. Ambedkar was not in support of what father of economics Adam Smith has written in his book “Wealth of Nation” in 1776 about the markets. Adam Smith was a great supporter of laissez fair policy (free markets), markets with no government interventions. Some has argued that this will give more liberty for the economic development of a country. But contrary to this Babasaheb has pointed out that this kind of liberty from the state may give rise to private capitalism, which may be dictators of their own kind. Babasaheb was not against the private enterprises but he was more concerned about the equitable distribution of wealth. In the memorandum submitted to the British government titled “states and minorities” in 1947, Dr. Ambedkar placed a strategy “an obligation on the state to plan the economic life of the people on lines which would lead to highest point of productivity without closing every avenue to private enterprises and also provide for the equitable distribution of wealth”. He wanted that the public sector should play an active role in the economic development of India whereas private sector should be treated as the passive player. While discussing about industrialisation in India, consolidation of small land holdings and building of water projects he stated that these should be state owned and should be managed by the state.

Thoughts on Economic Development

Ambedkar believed that the strategy of economic development of India should be based on thrust for eradication of poverty, elimination of inequalities and ending exploitation of the masses. In his book ‘Buddhism and Communism’, he emphasized that exploitation has many dimensions, economic as well as social, religious, political. In Indian context, social or religious exploitation is no less oppressive than economic exploitation. His concept of state socialism is based on the three basic tenets:

1. State ownership of agricultural land and key industries to meet the demands of the poorer strata of society
2. Maintenance of productive resources by the state
3. A just distribution of the common produce among the different people without any distinction of caste or creed.

References

1. Verinder Grover (1998) Political Thinkers of Modern India –B.R. Ambedkar, Deep and Deep Publications, New Delhi
2. Jadhav Narendra (1998) Neglected thoughts of Babasaheb Ambedkar, Deep and Deep Publications, New Delhi
3. Ambedkar B.R.(1923) The Problem of Rupee, P.S. King and Sons Ltd, London
4. Ambedkar B. R. (1925) Evolution of Provincial Finance in british India, P.S. King and Sons Ltd, London

8. Dalit Movement after Dr. Babasaheb Ambedkar in India: Challenges, Problems & Path Forward

Dr. Mohini Kumari

Guest Asst. Professor, T.N.B College Bhagalpur, TMBU Bhagalpur.

Abstract

History testifies the presence of cleavages in every society, characterized by atrocities, discrimination, exploitation and subordination that raised peoples demand for justice and equality. It is this idea of equality that forced people to protest in the form of movements. The Dalit Movement also began as a protest movement in India. The Dalits, also called as Atisudra, Panchama or Outcasts, at present constitute one of the most depressed and marginalized sections of Indian society. Socio-cultural exclusion, economic deprivation and political exploitation of centuries made them to break out of such kinds of age-old prejudices. Hence, they began to protest with the help of literatures, or forming organization like the Dalit Panthers, which came to be recognized as the Dalit Movement. This paper is an attempt to bring forth the various aspects of Dalit's lives that led to the movement, after Babasaheb Ambedkar.

Keywords: Cleavages, Dalits, Depressed, Equality, Exploitation, Protest, fascism, Movements.

Introduction

Dr. Babasaheb Ambedkar has undeniably been the tallest person in the struggles of oppressed people, particularly the Dalits in the post-modern India. Indisputably he was the first one to provide a broader intellectual canvas to the struggle of the thitherto broken people. One cannot ever make any undue claim to the profound resistance put forward by predecessors and the contemporaries, which laid the contextual edifice of Dr. Ambedkar argument. Any thesis that stands to thrive the basic humanist principles of Justice, Freedom, Equality, Liberty, Justice and Peace needs consistent study, reframing, evaluation and modification. In this sense it would be the victory of Babasaheb and the principles he laid forth in annihilating caste and thereby evolving the process of secular social democracy engagement where sharing of material and ideological-cultural-spiritual values would run as the core standard of every single aspect of engagement. Ideally the key feature of the Dalit movement should have aimed at annihilation of caste at the

primary level, establishment of secular or rational social democracy as the secondary stage and ensuring the value sharing mechanism as the third and major objective. While dealing with the question of the movement of ex-untouchables, it is essential to address the present context in its complexities, rather the crisis that has and is crippling India and how is it affecting the people at the lowest rung.

This would automatically draw our attention to the core question. Without this it would be problematical to be in a strategic position to discuss or debate the relevance of Dalits as a people, the present challenges, cope up mechanisms, identification of friends and foes, reconstruction and what strategies should it adopt to attain these goals. It would also present a wider picture of the nation as a whole and its complexes from the abyss, with caste as the core functional aspect. Today all crises in the world had expanded to unpredictable magnitude with severe implication and utter insinuation. Essentially one needs to discuss all aspects including ideology, politics and practise of egalitarianism, since it holds the key to set the basics and background of any secular social democratic revolution in the country. The exuntouchables while belonging to a broader class of rejected and abandoned people by the classics of Brahminical Hinduism; it also had the additional disability of being have-nots. Economically, most of them are still the poorest of poor. A minuscule minority has managed to escape poverty limits and to locate itself on to a continuum ranging up to a reasonable level of prosperity, yet they suffer the historically superimposed of social oppression. The main factor that has catalysed this upward mobility is the reservation policy – despite whatever flaws and errors – with provided the basic opportunity to enter the modern sectors of education, employment, economy and politics. In social terms the social oppression varies from the crudest variety of untouchability, discrimination, exclusion, marginalisation and alienation – practiced across the entire rural areas of India, to it's sophisticated manifestations urban areas including the corporate world. Although statistics indicate to have made a significant progress on almost all parameters during the past seven postindependence decades, the relative gap between the Dalits and non-Dalits seems to have remained the same or rather deteriorated (George, 2006B). Understanding the historical context and position is indispensable not only for positioning and strategising the Dalit movement but also to delineate the modern testicles of the continuity of caste system in post-modern era. In a broader overview, popular organised Dalit struggles cannot be traced before the British period. This is also due to the fact that the mystified Indian history and its historian's haven't provided

much of information on any such organised resistance to caste oppression. From this viewpoint one cannot arrive at a shortcut conclusion there was no organised resistance to the caste hierarchy of the Brahminical religion.

The important question is whether the ones in the lowest rung accepted it as their destiny or if it was a forced fate superimposed in the classical style of Roman slavery through sanctions of religions (George, 2006B). One is that the entire thesis of Hinduism as rightly pointed and argued by Babasaheb is banking the four-fold system of eternal domination viz. Varnashram which further developed into sub-class called caste. Subscribing to this argument, if a prudent and thorough exploration of the transformation of varna into caste is done one could find the expression and emergence of new theory of “purity of blood”, which is by and large the antidotes used even today by the protagonists of caste (George, 2006B). The extraordinary success of this contrivance of social stratification is as much attributable to its own design that effectively obviated coalescence of the oppressed castes and facilitated establishment and maintenance of the ideological hegemony as to its purported divine origination. None could ordinarily raise a question as it meant incurring divine wrath and consequent ruination of the prospects of getting a better birth in their next life. Thus the caste system held society in a metaphysical engagement and at the same time in physical alienation with itself (Teltumbde, 2006). Since, this superstructure was pivoted on the religio - ideological foundation, the manifestation of resistance to the caste system always used the metaphysical toolkit that contrived its arguments into the religious form. Right from the early revolts like Buddhism and Jainism down to the Bhakti movement in the medieval age, one finds articulation of opposition to the caste system materialising in a religio-ideological idiom. This trend in fact extends well down to modern times that mark a new awakening of the oppressed castes and the birth of the contemporary Dalit movement. All anti-caste movements thus, from the beginning to the present, invariably appear engaged in religious or metaphysical confrontation with Brahminism, either in terms of its denouncement or of adoption of some other religion (Teltumbde, 2006). It is under the above mentioned circumstances and juncture; I place the investigation on the pitfalls, challenges and ways ahead of the Dalit movement.

Untouchables in British India

Down the line of history the British colonisers aligned with the Indian rulers as well as mercantile class through its imperial and bourgeois liberal ethos coupled with the imperatives of

their ruling strategy marked the creation of space for setting up subaltern identities, particularly in terms of caste and religion. Initially the British rule delivered nothing different to the untouchables as the early British association was confined to the courts of kings. Until they confronted with each other with correspondingly led to institutional changes (judiciary, civil administration, commodity, markets), cultural changes (modernity, western mode of living, English education, exposure to western treasure of knowledge and scholarship), economic changes (zamindari and ryotwari systems in place of jajmani-balutedari), and social changes. The development opportunities that these changes created gave an impetus to the lower castes and also came into conflict with traditional social relations, which still shackled them through caste bondage. This could be termed as the second phase of emergence of autonomous Dalit movement in pre-Ambedkar phase (George, 2006B). This second phase is crucial as it marked a difference from the single out previous metaphysical. While dealing with Brahminical hegemony, the autonomous Dalit movement of course perceived an ally in the backward castes. The anti-Brahmin movement launched by the original visionary genius like Ayyotitasha, Sri Narayana Guru, Phule, Ayyankali, Baba Manguram, and others attains key space; which went beyond the rhetoric of metaphysical religious engagement to the level of physical and material struggles for land rights, labour rights, social dignity, temple entry movements, educational space, movement against slavery and bondage and upward mobility. Dr. Ambedkar was much influenced by Mahatama Phule in Maharashtra. In spite of the difference in time period marking out different transitory phases in the history; differences in dispositions, equipment and social backgrounds between Phule and Ambedkar, one finds essential similarities in their characterisation of the social structure and the movements they launched and led. British rule was considered positive by both Phule and Ambedkar for the introduction of modernity into the waning Hindu society but concurrently has exposed its; both rejected the claims of nationalists that India was a nation; both had no faith in the Indian National Congress; both came to characterise and oppose it similarly; both declared their vehement opposition to Brahminism but still did not hate Brahmins; both were rationalist; both had hated the blood sucking class of priests, landlords, moneylenders and capitalists and sought to organise their victims; both emphasised the importance of education in the scheme of liberation of Dalits and backward castes; and so on and so forth (Teltumbde, 2006). Howsoever underestimated or grossly overlooked the contradictions between the Shudra backward castes and the non-caste Dalits may be in the village setting where precisely the caste

problem is to be confronted, the Shudra castes came to share the mantle of Brahminism in relation to Dalits. This is basically strengthened by the economic contradictions between these farmer castes and the Dalits who are the farm labourers dependent on them. This legacy of Manu could neither be overcome by the powerful non-Brahmin movement of Mahatma Phule, who had certainly shown how to bring them together during his life time; nor by the Dalit movement despite its significant investment for bringing about a broad unity of all the labouring people during Ambedkar's time.

The Post-Ambedkar period

The post-Ambedkar Dalit movement had witnessed several ups and downs. On one side a categorical awakening among the Dalits had grown beyond all imagination and on the other it has somewhere stagnant after Dr. Ambedkar mainly due to ideological disposition. The post-Ambedkar phase can be broadly divided into three phases – rise and fall of the Republican Party, emergence of the Dalit Panthers and thirdly the growing assertion of Dalits for political power and their consequent refusal to remain satisfied merely with education and job opportunities arising out of the policy of reservation. While the first two phases were confined to Maharashtra, interestingly the third one hardly had any role of Maharashtra – it was mostly outside the state of Maharashtra. The factors that unfolded these phases depended much on the orientation guiding them. In Maharashtra except the strong efforts of Dadasaheb Gaikwad and some instant initiatives by Dalit Panthers, the Dalit movement almost failed to address the material aspect and life of Dalits. This perhaps was the key contributor to why the Congress party as a whole gained immense strength in the 60s and 70s within Maharashtra ensuring Dalits as their natural vote banks, despite the overarching legacy of Ambedkar. The fall of these movements marked the entry of the pettybourgeoisie outlook to the centre stage of perspective and the middle class cultural norm governing the leadership life-style married with splits and schism and a complete detachment from the real mass. There is no denial of the fact that the Dalit movement in the post-Ambedkar phase has gained immense potential and stridden several step ahead in the real democratisation of the Indian society with the rejection of political dominated by Brahminical values (George, 2005). The impressive emergence of BSP under Kanshiram in the national politics underlines this major chunk of the third phase. Kanshiram laid the foundation for this through forming All India Backward and Minority Castes Employees Federation (BAMCEF) in 1973 at first and later the Dalit Shoshit Samaj Sangarsh Samiti, popularly known as DS-4 in 1981

(Singh, 2010). The success achieved by BSP has certainly encouraged the emergence of similar experiments in different parts of the country (George, 2005). The emergence of Vidudalai Chiruthaigal Katchi as the largest Dalit movement in Tamil Nadu under the leadership of Thirumavalavan in recent years and another party called Puthiya Tamilagam under Dr Krishnaswami are quite inspirational and instilled new rays of hope against caste oppression. Dalit Samrakshana Samiti in Karnataka could also be seen as an emergent movement, despite the limitation of the time-space factor. The efforts to revive the Republican Party in Maharashtra – despite all its multiple factions – could also be seen as efforts with certain political goals in place. There are similar efforts in other states too. All these developments had certainly been a marker in the quest for attaining political mobility and space. However one could also observe that these formations from parties to social movements of the oppressed, poor and marginalised has failed to mobilise the larger societal social consciousness to bring more social equilibrium for the Dalits. Dr. Ambedkar has left with a mission to be continued with specific objectives and goals of building an India, which he often referred to as ‘Prabuddha Bharat’. Thus the Dalit movements seem to have not only lost their momentum as a movement, but also has shifted from its core agenda to a more populist agenda which sweeping shift in their slogans and languages.

Land Question and Power Dynamics – the missed line by Dalits Movements

Parallel to these developments there is another aspect that somehow consciously or unconsciously slipped away from the Dalit-Bahujan movement in the national political scenario after independence. During the post-independence period the imperatives of electoral politics provided the motive force for the consolidation of the middle castes. Thus a majority of the Shudra castes – who were marginal or small farmers or artisans labouring in the jajmani-balutedari (client-patron) system – attained crucial and critical room for affirming themselves (George, 2006B). These castes received disproportionate benefits from the policies and programmes implemented during this period. The most significant have been the land reforms that sought to restore the lands to tenants and later the green revolution that channelled significant investments into agriculture and raised its productivity. The former could not reach real tenants who in most cases were Dalits because the government machinery would not know that there operated a layered tenancy in villages as a Dalit tenant could not be dealt with by the high caste landlord directly. So, by default, it recognised the intermediaries as the legal tenants who invariably belonged to these farmer castes. Many of the benami transfers also went to them, as

they were the confidants of the former landlords. The green revolution, as numerous studies concluded, clearly benefited the bigger farmers who again belonged to these castes. The empowerment of a section from these Shudra castes impelled them to create a formidable constituency for themselves in nexus with the capitalist class and wielded significant political power. The contradiction between them and the Brahmins that impelled the non-Brahmin movements during the colonial times were overcome in this process, which enabled them to assume the hegemonic role in the rural setting (Teltumbde, 2006). Omvedt and Patankar (1979) points to the development of two parallel hierarchies in development of caste system in India. One hierarchy developed in the domain of agrarian relations ranging from landlords to independent peasants to tenant-cultivator to field servants. The last category comprised the untouchables – a form of semi-slavery.

The entire land policy evolved in the colonial period and during the freedom struggle was focussed on the ideology of 'land to the tiller', which excluded the lowest hierarchy in the agrarian system i.e. the untouchable field servants. In the pre-1947 phase, the castes under this generic Shudra caste-group were not well off economically and equal socially. Many of them, the artisan and service castes, were as poor as Dalits and continue at various rungs in the caste hierarchy. However, they could be bracketed together socially in caste terms as one entity for the reason that they were economically farmers since many of these groups held land in the new set of arrangements. The caste divisions between them were really imperceptible in hierarchical terms, though social engagements are still limited (George, 2006B). In relations to Dalits – however they were placed socially and culturally clearly apart as the caste Hindus – their superiority perception in relation to the increasingly assertive Dalits was deliberately worked up by the powerful elements in villages, which thwarted any possibility of their making common base and agenda with Dalits. All these Shudra castes came to pose as a single block in opposition to Dalits for mainly two reasons. One, their superiority in the caste hierarchy to Dalits lent them power over them to extract more and more economic surplus and two, the assertiveness of the majority Dalit caste induced by their political consciousness (through the Dalit movement) and economic betterment (through reservation policy) made them vulnerable and defensive (George, 2006B). These dynamics achieved two things for the rural rich. One, it obfuscated their exploitative relations with their own caste fellows and two; it provided them the requisite mass base to claim political power. One shouldn't conceal or mask the historical blunder of the

Communist movement in its incapacity to analyse the caste system which led to the unambiguous failure to interpret the established traditional working class sections of India. This also had done a lot of damage to the Dalit movement and at large frozen the working class either. Beyond the definite splitting up of Dalits it also botched in addressing the questions of bringing the new class along with Dalit with the class movement. Obliterating the class structure in India could only begin with the annihilation of caste (Teltumbde, 2006) that was completely forgotten by the communists. Any question of caste annihilation cannot happen without thrashing the power structure, which has its roots in the land holding patterns that emerged in the post independence period. The historical alienation of Dalit movement from Communist – who otherwise could had been their natural ally – for whatsoever reasons, juxtaposed from composing any alliance at this facade either. This new class of landed people emerged as the political class, who in return completely dismissed any question of Dalit land rights, nor did the emergent Dalit movements felt the necessary need of taking up the land question at the national level seriously. Thus the Ambedkar's project of annihilation of caste remains as a distant dream of all those who claimed to be the vanguards of the new society creation.

Hindutva Fascism & Dalits Movements

Another aspect that the Dalit movement in the post Ambedkar era failed to address is that of the direct challenges of communal fascism. Communal Fascism is a form of extreme right-wing ideology that celebrates the nation or the race as an organic community transcending all other loyalties. It emphasizes a myth of national or racial or puritan rebirth after a period of decline or destruction. To this end, fascism calls for a “spiritual revolution” against signs of moral decay such as individualism and materialism, and seeks to purge “alien” forces and groups that threaten the organic community. Fascism tends to celebrate masculinity, youth, mystical unity, and the regenerative power of violence. Often, but not always, it promotes racial superiority doctrines, ethnic persecution, imperialist expansion, and genocide. At the same time, fascists may embrace a form of internationalism based on either racial or ideological solidarity across national boundaries. Usually fascism espouses open male supremacy, though sometimes it may also promote female solidarity and new opportunities for women of the privileged nation or race (George, 2006A). Fascism's approach to politics is both populist – in that it seeks to activate “the people” as a whole against perceived oppressors or enemies – and elitist – in that it treats the people's will as embodied in a select group, or often one supreme leader, from whom authority

proceeds downward. Fascism seeks to organise a cadre-led mass movement in a drive to seize state power. It seeks to forcibly subordinate all spheres of society to its ideological vision of organic community, usually through a totalitarian state. Both as a movement and a regime, fascism uses mass organisations as a system of integration and control, and uses organized violence to suppress opposition, although the scale of violence varies widely (George, 2006A). The present phase of fascism is a more organised and systematic attempt to continue the caste-class legacy. It started with the emergence of Hindu Chauvinism and Cultural Nationalism under the leadership of RSS led camp. This camp learnt various things from different sectors. They learnt the skills in organising and mobilising from Communist parties, mastered the management techniques from Churches & Christian institutions, the one-man dictator model of Adolph Hitler and the also the methods of maintaining private militia. In nutshell, the wholesome exercise was to sustain and strengthen the same old ideology of purity of the three upper varnas and Shudras and Panchamas as impure and pollutants. A twin strategy of dictating the Dalits and non-Hindu communities is the present form of communal fascism in India. Current mode of communal polity coupled with sustained casteism apparently speaks of this truth (George, 2006B). Communal-fascism has built philanthropic and religious institutions like Saraswati Sishu Mandir, Vanvasi Kalyan Ashram, Sanghs, Deen Dayal Shodh Sansthan, Sanskriti Bihar, Vikas Bharit, Gayatri Pariwar, Brahmakumari Samaj, etc. are some of the strategies adopted to create inroads among the Dalits & Adivasis. Expansion of fascism has so far and is disintegrating the Dalit-Adivasi ideology, theology, and identity and intimidated their very existence.

Apparently this ruptures the community, deteriorates the noble notions of sharing, caring and co-operation, expansion of patriarchy and battered the inkling of community ownership over resources and all remaining symbols of common property (George, 2006A). Another strategy applied is the steady and systematic capturing of the community panchayats and organisations. The best example of this is Gujarat where the communal fascists have got their stranglehold and successfully executed the carnage against the Muslims by communalising Dalits and Adivasis. Two crucial incidences in the Dalit history of India would remain as irremovable scars – one being the demolition of Babri Masjid and the second the post Godra genocide of Muslim. Regretfully no Dalit organisation had a strong stand against either of these. Dalits chosen to be the foot soldiers of the Hindutva forces against Muslims indeed surprised many. The very same Brahmins, Banias and Patidars who constitute the Hindutva command today sparked off the 1981

anti-reservations riots against Dalits (Tripathi,2009).20 years should not be too long a period for the collective memory of the victims to be effaced in favour of the perpetrators of crime. The riots were a part of their protest against the reservation system that gave Dalits access to medical and engineering colleges. They were based on falsehood and blatant lies even then as any of the riots thereafter and the recent carnages are. It led to riots in which Dalits were targeted in 18 of Gujarat's 19 districts. The backlash was so harsh and widespread that it marked a watershed in the Dalit consciousness. The violence of 1981 riots achieved in one shot what they could not do over many years. It is significant to remember that during these riots the Muslims had sheltered Dalits at many places. Dalits faced the wrath of same Brahmins, Banias and Patidars combine again in 1985 although this time their agitation was against the hike in job quotas for the OBCs in government and educational institutions. Ironically the Dalits upheld the reservations for the OBCs under the Mandal Commission and bore the wrath of the higher castes but the actual beneficiaries continued not only to be with the higher castes but also against Dalits (Teltumbde, 2004). Resultant is the perpetual assurance of control over these communities plus a bonus of sustaining casteism. Expansion of caste fascism has so far and is disintegrating the Dalit ideology, theology, and identity and intimidated their very existence. Apparently this ruptures the community, deteriorates the noble notions of sharing, caring and co-operation, expansion of patriarchy and battered the inkling of community ownership over resources. Let us not forget Ambedkar was the greatest fighter against religious fascism and historical caste fascism.

Any pragmatic and progressive movement cannot stand on the selective criticism of a few religious texts or political ideologies and conveniently keeping quiet on other questions. A movement cannot be built on superfluous philosophy of negativism. It has to provide its own alternative to the people. Dalits have their own distinct identity and culture and those claiming to provide them an alternative God really misquote Dr. Ambedkar and kill their revolutionary spirit, as is the suggestion by many Dalit. Dr. Ambedkar's popularity among the Dalits is not due to the corrupt Dalits who use all tactics to grab money and power but the poor Dalits who consider him as the liberator. There are many reasons for the same. Dr. Ambedkar is a uniting factor for Dalits. No doubt that he has become an icon of Dalits from North to South from Hindi heartland to the southern Tamil Nadu. However he himself was against 'hero worship' of any time. He believed in the exploration of knowledge on historical and scientific basis. This has to be a regular, rather on-going, process, which is only possible by addressing the problems of the oppressed and exploited

masses. The undeniable fact is Dr. Ambedkar is mainly known among the working class Dalits. Re-reading Dr. Ambedkar In broader terms the Dalit movement failed to properly address many things. It is very essential at this juncture to re-investigate what Babasaheb had mentioned about the various different aspects, despite the limitation of time, space and ideological factors. Dr Ambedkar certainly was not dogmatic but pragmatic. He had rightly confronted the forces of casteism, fascism, communalism imperialism and capitalism. He believed that any system that promotes unequal human relationships should not thrive. Was Ambedkar non-radical? Did he ever not talk against imperialism? Did he not oppose capitalism? Did he not oppose Hindutva and communal forces? Did he fail to connect the intricacies of these aspects? To any extends if anyone grasped imperialism and empirism, its entire length, and breadth, and height, its capacity and volume it was Ambedkar. Notwithstanding the fact that as a true democrat, Ambedkar, far from being a stooge of the British imperialism – as maligned by some leftist and pseudo nationalist, was against imperialism of every hue. His sole crime was that he saw imperialism in its totality, as a rule of one society over the other. Otherwise it was understood in a stereotype model of rule of one nation over another. He was of the opinion that anything being enforced on others in social or political or economic is the core of imperialism. Let us examine these passages what he had to say on empire and empirism is like this, “The British have an Empire, so have the Hindus. For is not Hinduism a form of Imperialism and are not the Untouchables a subject race, owing their allegiance and their servitude to their Hindu masters? If Churchill must be asked to declare his war aims how could anybody avoid of asking Mr. Gandhi and the Hindus to declare their war aims.” Further he writes, “The sky-piercing slogan shouting ‘Down with Imperialism’ could entrench itself in India. The young leaders do not seem to understand if the foundation of Brahminism on which the superstructure of imperialism is erected, is itself weakened. The power and strength of imperialism lies in the weakness of the classes that are ruled by imperialism. The weakness of India is accumulated in the social structure of the Hindus. Or social norms and traditions are destructive of unity and supporter of division. That is why imperialism could strengthen its base here and it is still able to carry on.” Again he speaks, “if consciousness and reason can be insinuated into the resulting struggles they can only qualify, never abolish, the injustice. If injustice is to be abolished it must be resisted and when injustice proceeds from collective power, whether in the form of imperialism or class domination, it must be challenged by power. A class entrenched behind its established power can never be dislodged unless power is

raised against it. That is the only way of stopping exploitation of the weak by strong” (BRAWS, 1990B). Yet another distorted and maligned confusion around Dr. Ambedkar remains that he was in favour of foreign rule or colonisation.

This is one strategy applied by the Indian Communists (as guardians of caste system) thereby alienating the crude question of caste, and silently legitimising caste as if it will disappear with the larger class struggle. This happened the vice versa when the entire Dalit movement isolated from seriously studying or question of class struggle or anti-imperialistic agenda. None other than Dr. Ambedkar who while making a strategic use of the British rule as arbitrator between the Hindus and Dalits knew this reality as he repeatedly castigated it for having done nothing for the Dalits. In one of his editorials he wrote with a caption “What have British Lords done for you?” “Whatever desirable change may have come in our condition during the British rule has just happened in the course of time. We cannot be sure about whether the British government has made any special efforts for that. On the contrary, we are of the opinion that it is utterly futile to expect any emancipatory work for untouchables from the British rule.” He was fully aware, perhaps better than many swadeshi sloganeers of his times, of the exploitative character of the British imperialism and its social and economic importance. Dr. Ambedkar wrote three scholarly books on economics where he closely looks at the role of the British imperialism, its overall impact on the different sections of Indian society.

The first one ‘Administration and Finance of the East India Company’, he had exposed how the East India Company exploited Indians during the long period of 1792 to 1858 and after its rule was abolished in 1858, how instead of removing the injustice, the British Crown increased it by loading the starving Indians with the huge debt, which was taken by the East India Company for its own consumption.

The second was the ‘The Evolution of Provincial Finance in British India’, which analysis the evolution of Centre-State financial relations in British India during the period, 1833 through 1921 (BRAWS, 1989).

The third one is ‘The Problem of the Rupee: Its Origin and Its Solution’. It is considered as magnum opus in economics.

The essential colonial mechanism for exploitation gets succinctly exposed in Dr. Ambedkar’s conclusion, “apparently the immenseness of India’s contribution to England is as much astounding as the nothingness of England’s contribution to India” (BSAWS, 1989). The

same language and fervour against British imperialism could be found in all his subsequent writings, as he was clear that imperialism is a major component as a burden to freedom and advocated for self rule. But to his sense the self-rule of untouchables cannot be equated with the self-rule of the caste Hindus, since there already existed a nation within a nation. While comparing the bearings and pains of the Jews and Untouchables Babasaheb wrote, "It is generally agreed among the thoughtful part of humanity that there are three problems (1) Imperialism, (2) Racialism, (3) Anti-Semitism and (4) Free Traffic in that merchandise of death popularly called munitions. There is no doubt these are the plague glands in which nation's cruelty to nation and man's inhumanity to man have their origin. There is no doubt that these problems must be tackled in a new and a better world is to emerge from the ashes of this terrible and devastating war. What my fear is that the problem of the untouchables may be forgotten as it has been so far. That would indeed be a calamity. For all the ills which the untouchables are suffering if they are not as much advertised as those of the Jews, are not less real. Nor are the means and methods of suppression used by the Hindus against the untouchables less effective because they are less bloody than the ways which the Nazis have adopted against the Jews.

The Anti-Semitism of the Nazis against the Jews is in no way different in ideology and in effect from the Sanatanism of the Hindus against the Untouchables" (BSAWS, 1990B). One need not forget the connective fact that anything that is imperialism is strongly connected with the economic mode of production by means of feudalism and capitalism. Secondly beyond any doubts, Dr. Ambedkar believed in secularism to his core, which he strongly manifested through his thorough study of religion and particularly Buddhism as a rational way of life. The flag-bearers of Hindutva, in their task of manufacturing history, have now left Babasaheb even. The RSS has presented him as a leader in league with Hedgewar and Golwalkar and as a defender for the cause of the Hindu Rashtra (Islam, 2003). Leaders of BJP have not given up any chance to declare Ambedkar as a supporter of Hindutva and the Hindu Rashtra. This is nothing but injustice to a man who had renounced Hinduism because of its repressive elements and converted to Buddhism. Throughout his life, Ambedkar opposed the communal politics of both the Muslim League and the Hindutva forces. His book, *Pakistan or The Partition of India* (1940), stands testimony to his opposition to the nefarious designs of communal elements. In fact, his ideas and warnings about Hindutva, as contained in the book, can even now work as bulwark in checking the resurgence of communal forces (BRAWs, 1990A). Ambedkar writes, "If Hindu Raj does

become a fact, it will, no doubt, be the greatest calamity for this country. No matter what the Hindus say, Hinduism is a menace to liberty, equality and fraternity. On that account, it is incompatible with democracy. Hindu Raj must be prevented at any cost. The idea of Hindustan for Hindus is not merely arrogant but is arrant nonsense". Dr. Ambedkar was of the firm opinion that Hindutva was nothing but a ploy by upper caste Hindus to maintain control over society and its resources. He wrote: "They have a trait of character which often leads the Hindus to disaster. This trait is formed by their acquisitive instinct and aversion to share with others the good things of life.

They have a monopoly of education and wealth, and with wealth and education they have captured the State. To keep this monopoly to themselves has been the ambition and goal of their life. Charged with this selfish idea of class domination, they take every move to exclude the lower classes of Hindus from wealth, education and power. This attitude of keeping education, wealth and power as a close preserve for themselves and refusing to share it, which the high caste Hindus have developed in their relation with the lower classes of Hindus, is sought to be extended by them to the Muslims. They want to exclude the Muslims from place and power, as they have done to the lower class Hindus. This trait of the high caste Hindus is the key to the understanding of their politics" (BRAWS, 1990A). Ambedkar, in his struggle to establish a secular State, did not differentiate between flag-bearers of Hindutva and the Muslim League. He treated them as two faces of the same coin, which is bent on destroying India.

He wrote: "Strange as it may appear, Mr Savarkar and Mr Jinnah, instead of being opposed to each other on the one nation versus two nations issue, are in complete agreement about it. Both not only agree but insist that there are two nations in India - one the Muslim nation and the other the Hindu nation" (BRAWS, 1990A). Ambedkar did not cut off words or fractured his spike when he wrote, "It must be said that Mr Savarkar's attitude is illogical, if not queer. Mr Savarkar admits that the Muslims are a separate nation. He concedes that they have a right to cultural autonomy. He allows them to have a national flag. Yet he opposes the demand of the Muslim nation for a separate national home. If he claims a national home for the Hindu nation, how can he refuse the claim of the Muslim nation for a national home?" (BRAWS, 1990A). Ambedkar didn't differ from exposing the communal character of the Muslims even. Blaming them for creating the demon of communalism, he says, "The Muslims are howling against the Hindu Mahasabha and its slogan of Hinduism and Hindu Raj. But who is responsible for this?

Hindu Mahasabha and Hindu Raj are the inescapable nemesis which the Musalmans have brought upon themselves by having a Muslim League. It is action and counter action. One gives rise to the other. Not partition, but the abolition of the Muslim League.” He continues to write in the same page, which shows his true secularist character “forming mixed political parties based on an agreed program of social and economic regeneration, and thereby avoiding the danger of both Hindu Raj or Muslim Raj becoming a fact. Nor should the formation of a mixed party of Hindus and Muslims be difficult in India. There are many lower orders in the Hindu society whose economic, political and social needs are the same as those of the majority of the Muslims and they would be far more ready to make a common cause with the Muslims for achieving common ends than they would with the high caste of Hindus who have denied and deprived them of ordinary human rights for centuries” (BRAWS, 1990A).

Conclusion

The post-Ambedkar Dalit situation at the national level, its connection with different spheres of socio-political development, its varied dimensions in relationship with the people, systems, ideologies, identities, religions, conversion, how effective it had been in building up a movement, particularly its successes, its failures, the ups and downs, and what are the areas that a genuine Dalit movement should be more active and progressive in future. In so far the agreement on which my framework is based is that no society or system could be categorically classified into incontrovertible blocks, in each society there always remains an invisible but closed propinquity. Though many claim follow Ambedkar, their integrity is also questionable while making such claims and positions.

We need a close study of Ambedkar, which normally many people never do. Ambedkar is beyond conversion. One needs to go beyond the dogmatism of Babasaheb and build-up on the values that he had been emphasising. His noble ideas of a secular, socialist, democratic India is still valid as the guiding principles in the creation of a new India. This means one needs to engage in a process to develop a counterculture, as alternative to the present one that could combat the growing trends of the combine of casteism fascism-globalisation-imperialism. Unless we consciously raise a sense of counter culture time and again, all these efforts will be futile and in vain. Hence a sense of alternative culture also needs to be understood in this process. There are elements of this counter culture still alive around us, mostly observed in the Dalit and Adivasi art forms. Since these art forms have all the principal elements of sustaining life, direct democracy,

social engagement, egalitarianism and justice concerns it is suited in the attempt to develop a counter culture. The edifice of counter culture is based on the culture and art forms of those who had suffered a lot. It is the search for fullness of life and quest for justice in the dark world. Here values are not individual centric, rather is based on the common good of all. This had been the vision and mission of Ambedkar, which the current Ambedkarite and Dalit movement had lost in the discourse.

References

1. B. R. Ambedkar: Writings and Speeches "The Administration and Finance of the East India Company", Education Department, Govt, (1989), in vol. 6, p 23.
2. B.R. Ambedkar: Writings and Speeches "Pakistan or the Partition of India", Education Department, Govt. of Maharashtra, Mumbai, (1990A), in Vol. 8, p 67.
3. B.R. Ambedkar: Writings and Speeches "Mr. Gandhi and the Emancipation of the Untouchables", Education Department, Govt. of Maharashtra, Mumbai, (1990B), in Vol. 9, p147.
4. Bahishkrit Bharat (1929) March 15, p 37.
5. Das, Bhagwan, "Untouchability, Scheduled Castes and Nation Building" in Jose Kananakil, (Ed.) "Scheduled Caste and Struggle Against Inequality- Strategies to Empower the Marginalised", Indian Social Institute, New Delhi, (1983), pp 87-91.
6. Gatade, Subhash "Inverting Dalit Consciousness: Hindutvaing the Dalits, Communalising the movement" in Goldy M. George Edited "Globalisation & Fascism... The Dalit Encounter", Dalit Study Circle, Raipur, (2004), p 77.
7. George, Goldy M. "Salam Bhimrao!" Editorial Column in Daily Deshbandhu December 6, (2005), p 95.
8. George, Goldy M. (2006A) "Fascism Versus Indigenous People", <http://www.countercurrents.org/dalitgeorge020906.htm> accessed on August 10, 2013.
9. George, Goldy M. (2006B) "The Future of Dalit Movement in India", theme paper in the National Seminar on "How can we 'Survive' and 'Succeed' Ambedkarism in the 21st century?" from 18-21 November, Nagpur, (2006B), p 56.
10. Islam, Shamsul "Ambedkar as Hindu", The Hindustan Times, 15 April, 2003.
11. Omvedt, Gail and Bharat Patankar "The Dalit Liberation Movement in Colonial Period", Economic and Political Weekly, (1979), Vol 14, Nos: 7 & 8)

12. Singh, Kavaljit "A citizen's Guide to the Globalisation of Finance", Madhyam Books, Delhi & Documentation for Action Groups in Asia, Hong Kong, (1998), p 67.
13. Singh, Shyam "Dalit Movement and Emergence of the Bahujan Samaj Party in Uttar Pradesh: Politics and Priorities", Working Paper 242, The Institute for Social and Economic Change, Bangalore, (2010), p 19.
14. Teltumbde, Anand "Impact of New Economic Reforms in India", A Paper Presented in the Seminar on 'Economic Reforms and Dalits in India' Organised by the University of Oxford, Oxford, UK, on November 8, 1996.
15. Teltumbde, Anand "Damning the Dalits for the Bania-Brahmin Crimes in Gujarat", in Goldy M. George Edited "Globalisation & Fascism... The Dalit Encounter", Dalit Study Circle, Raipur, (2004).
16. Teltumbde, Anand "Anti-Imperialism and Annihilation of Caste", Ramai Prakashan, Thane, (2005), p 103.
17. Teltumbde, Anand "Theorising The Dalit Movement: A viewpoint", unpublished paper, (2006).
18. Tripathi, P. M. "Impact of Globalisation on Regional Development in Asia", AVARD, [http://www.angoc.ngo.ph/pdf/Impact-ofGlobalisation-on-Regional-Development - inAsia.pdf](http://www.angoc.ngo.ph/pdf/Impact-ofGlobalisation-on-Regional-Development-inAsia.pdf) accessed on December 1, 2009, p 35.

9. Thoughts of Dr.B.R.Ambedkar's about Human Rights and Women Empowerment

Mr. Namdeo Warabhe

Introduction

Dr. Babasaheb Ambedkar had indomitable faith and fascination for democracy. He was often thinking as to how it could be successful in India where the social milieu was undemocratic. Babasaheb spent his whole life for the welfare of marginal groups and downtrodden families of the nation. He was a convenor of democracy and specially mentioned in his speech that conditions for the successful working of Democracy at Poona District Law Library that there are seven necessary conditions for the successful working of democracy.

Dr. Babasaheb Ambedkar accepted the Buddha Dharma along with thousands of people on 14th October, 1956 at Nagpur. This day of Vijayadashami is an important event in the history of India. Buddha Dharm includes principles of equity, freedom.

Ambedkar argued that the manner in which the customary rules, the occupation, property rights, employment, wages, education, dignity etc. He was opposed to caste system, it could not but produce vast inefficiency and income inequalities. Thus, in his view, caste system as a organization for production has produced gross economic inefficiency, economic stagnation backwardness. Ambedkar analyzed in detail the economic consequences of cast like immobility, restrictions on individual choice and initiative, social status associated with occupation and the dignity of labour involved under caste system.

Ambedkar recognized that the caste system's basic feature of occupations for each caste implies exclusion of one caste from undertaking to occupation of another caste. Exclusion and discrimination in occupation as per unemployment of labour, is thus internal to the system and necessary. It is reasonable to assume that in a market economy the occupation immobility would operate through restrictions in various markets such as land, credit, other inputs and services necessary in any economic activity. Labour market exclusion would, therefore, manifest itself in exclusion in employment, another caste's occupation. This would necessarily imply that occupationally segmented, and imperfectly mobile labour, and capital market generate economic

outcomes. In its ultimate outcome, the performance of society economy would be lower than in competitive economy.

Babasaheb made life free from such evils which dwarf the ethical-rational behaviour of human beings necessary for their advancement both material and spiritual. His conversion to Buddhism presupposed Buddhist religious ideology and symbolism to be the medium for achievement of life-aspirations of the suppressed and their eventual achievement of human dignity and establishment of egalitarian society. The conversion was not an enticement to lure the stigmatized to overcome their centuries old disabilities alone. The purpose behind it was to reconstruct the world on the foundations of compassion, tolerance, reasonableness and morality which proceed the men to engage themselves in life for achievement of material and ethical development fostering equality, fraternity and justice.

As per the Ambedkars views, human political- socio-economic thoughts expressed by Dr. Ambedkar in his valuable speeches and writings, are basic guidelines for our public welfare, economic and financial policies in the present century to all Indian citizens regardless of their gender, race, caste, religion, language or region. As a true nationalist he advocated sovereign socialist democratic republic of India.

Human Rights

The term Human Rights implies a number of sensitive issues in its practicality and entirety. All human rights for all should be the goal of the century and it must be ensured that human rights are universally accepted and respected. In the present scenario declarations, conventions, treaties, bodies of principles and codes of conduct cover almost every conceivable aspect of the relationship between the individual and the states. Legal instruments exist to protect the rights of the child, protect the rights of women to equality treatment, spell out the duties of the governments in respect of the observance of civil and political rights and economic, social and cultural rights, proscribe racial discrimination.

The origin of the Human Rights is related with the development of human civilization. Human can never led a happy life without these rights to live and could have never developed the civilization. However, there were also such tendencies emerged during the same evolution to curb this right which allowed the human to live. In this quest, measures were taken in several ways to preserve the human rights. Several new principles pertaining to the human rights in the society were developed while it was seen in several newer perspectives. However, this issue was being

talked collectively at the International level after this period. All human beings are born free, equal in dignity and rights. They are endowed with reason conscience and should act towards one another in a spirit of brotherhood. The rights which can be inheritance in on nature and we cannot live without it as human beings. A rights-based approach also draws greater attention to the responsibility of governments for honouring their international legal commitments to social and economic rights. This comes into focus especially when developmental work like mining, energy, agriculture and urbanization are conducted without due regard for the land and livelihood rights of local communities.

Human rights naturally executed and spread to human being that describe certain standards of human behavior, and are regularly protected. They are commonly understood as inalienable inherent to human being. Human rights includes location, language, religion, ethnic origin related contents. Human rights are applicable and universal. Human empathy, cognizance and awareness about rights.

Human rights are highly influential within international law, global and regional institutions. The idea of human rights Human rights principles are related to socialism, Gandhi's philosophy.

Women Empowerment

Women are the backbone of society. Society never complete without women. Men and women are the two wheels of the life. There should be uniformity in both parties. But when we see the structure of Indian society, it always gives the secondary status to the women. As per the development of education, the changes have been taking place in the position of women.

Various problems faced by Indian women-

1. Violence against Women
2. Gender Discrimination
3. Negligence and poor health
4. Unequal sex ratio
5. Un-attraction of Female Education
6. Dowry a curse
7. Violence against women
8. Sexual Harassment
9. Organizational problems

10. Familiar and Social Problems

Suggestions

1. Strict rules and regulations.
2. Equality and no place to gender discrimination-
3. Eradication of common and basic problems of women in society-
4. The role of sociologists, social workers, planners and NGOS-
5. Proper implementation and preparation of plans-
6. Improvement in politically and economically status-

Human Rights help in following ways

1. There must be no glaring inequalities in the Society.
2. It requires the existence of opposition.
3. Equality in Law and Administration.
4. The observance of Constitutional Morality.
5. There must be no Tyranny of the majority.
6. The functioning of moral order in society: and
7. There must be public conscience.

Conclusion

Dr. B. R. Ambedkar emphasized the need to eliminate poverty in his book, Administration and Finance of East India Company. He mentioned the problems of over population, small holdings and unemployment with effective strategies of solution and overcome these serious problems of the country. Also he analysed ill-effects of caste system which avoided social justice and adversely affected the mobility of labour and capital and dynamism of socio-economic structure, an essential element of globalization of the 21st century. He was favourable to accept the need of industrialization and incorporation of capital for the prosperity of India. With abrupt changes in the industry an individual must be free to change his occupation otherwise it would be impossible to gain livelihood. According to him, the trade unions in India follow three basic economic-social-political objectives stated by Dr. Ambedkar. Even today, it can be clearly noticed that our central and state government's labour welfare policies are based on his human views. He advocated a progressive, elastic and equitable taxation policy not affecting the living standard of living.

In this way Babasaheb Ambedkar made the remarkable contribution for women and other exuded groups of society. He strictly focused on the human and fundamental rights for social justice and equality.

References

1. Alam Aftab (2000): Human Rights. in India: Issues and challenges, Raj Publications, Delhi.
2. Chopra J.K. (2010), Human Rights and The Modern World, D.P. S. Publishing House, New Delhi (India)
3. Microfinance and Women Empowerment, Dr. Jyotish Prakash Babu
4. National Family Health Survey report on Gender Equality and Women's Empowerment in India
5. Women Empowerment in India-Milestones & Challenges, Dr. Rakesh Chandra

10. Indian Visionary Dr. B. R. Ambedkar: A Critical Study of Status of Indian Women with Reference to Social Context

Prof. Namrata Suresh Alhat

Prof. Ramkrishna More College, Akurdi, Pune.

Abstract

Dr. B.R. Ambedkar's inheritance as a social scholar prominently had an intense consequence on modern Indian society. Especially in post-Independence Indian era he contributed his social and political views which appreciated in the political field widely. Dr. B.R. Ambedkar's ideology controlled diverse areas of Indian social life and altered its social and economical, educational strategies, and confirmatory deed throughout the social and legal inducements. Being a scholar he was appointed as an Indian first law minister, and drafting committee of the constitution as a chairman. He widely believed in personal freedom and hence condemned caste discrimination in Indian society. His views of declining Hinduism in traditional caste system as a scholar made him contentious and hated among Hindu society. His views on Buddhism ignited stimulation in Buddhist philosophy in Indian and various continents. His main involvement in the arena of Indian economics is excellent and forever will be remembered. Dr.B.R.Ambedkar remained a path maker especially for all the Indian women not considering their religious status, and identity of caste. He has contributed a new movement for upcoming Indian women's generations throughout his views and beliefs. [Total Words: 185]

Keywords: social scholar, ideology, declining Hinduism, path maker, caste discrimination etc.

Introduction

"I measure the progress of community by the degree of progress which women had achieved". Dr.B.R.Ambedkar (1927)

Dr. B.R. Ambedkar was the principal Architect of Modern Indian Constitution remained as an intellectual of excellence, a theorist, a futurist, and a real national leader. He contributed various social revolutions to protect basic human rights for the exploited and marginalised

fragments of the Indian society. He had known as a symbol of suffrage mainly for social justice. Maharashtra's state government has contributed an exceedingly creditable publication of his unpublished works. This focused Dr. B.R. Ambedkar's beliefs and values before the marginalised Indian society. His works remain applicable in today's timeline as visionary. His strong belief in our supporting Indian democracy shows a firm stand on the base of recognizing liberation, impartiality as the primary principles of Indian social life. He has promptly given importance to the growth of women have achieved in social status. He considered maintaining the Indian democracy not in the simply in its form but also in factual constitutional techniques of achieving our socio-economical objectives. He basically advocated political, social and economical principles of life. He was the first untouchable to attend the college and continued to his higher degrees at Columbia University. While drafting the Indian constitution for the Republic India in the 1920s he launched a civil rights movement especially for untouchables being its first law minister. Dr. B. R. Ambedkar (1891–1956) is worshiped by many low-caste followers in India today. Untouchable communities mainly his admirers call him Baba a term referring respect for a guiding senior member and they use the special greeting *Jai Bhim* meaning a triumph to Dr. Bhimrao Ambedkar. The state government of Maharashtra has made available his eighteen volumes of Dr. B.R. Ambedkar's composed works and conferred him highest civilian honour titled as Bharat Ratna.

Indian women's status in pre-independent social class: Women before 'Manu' came into existence had cherished reputable position in the Indian Hindu society. They were set free to enjoy equivalent rank like Indian men like wise in education, matrimonial field and economical liberty. The weakening position of women in the Indian society started with the obligation of strict limits of Manusmriti. Manu proposed very inferior views on women. Manusmriti was not allowed women to be trust worthy mainly for their temperament to torture men. Men are supposed to be prohibited to sit in a forlorn place even with any one's close relations like mother, sister or daughter. Women were not set to be free under any situations. Patriarchy plays a major role in it women's entire day and night must be kept in the control of gents of their respected families. Father will protect women in her childhood, later on her husband will protect her in early stages and being a mother, her sons will guard her in her age old conditions. Hence women were never considered fit for their independence. They have to worship a husband. Any woman will not be allowed to get a divorce from their husband in any circumstances. On the other hand

men are permitted. Men were permitted to isolate and can sell his wife. Dr.Ambedkar rightly pointed out that *Shastras* were really discriminatory for degradation of women.

Feminist Approach in his Vision

“Unity is meaningless without the accompaniment of women. Education is fruit-less without educated women, and Agitation is incomplete without the strength of women”.
Dr.B.R.Ambedkar.

Indian women and including all the people of India should grateful to Dr.B.R.Ambedkar for his incredible and endless initiatives for the social growth which was based on equality. He also worked on the status of Muslim women dealing with their dress code, relates religious customs and matrimonial details. Modern time considers Dr.B.R. Ambedkar’s views extremely focused on social equality and are yet to be understood for restructuring Indian social context which was aimed at creating betterment of women from all communities. He fought for women liberation. His aim was to fight against all types of inequity against females. Indian women’s status was ignored against gender discrimination. Modern days of globalisation aimed at searching talent for smooth functioning at business firms. In this regard social injustice should be uprooted from the society. Various business firms should implement the legal structure referring government of state and central emphasising norms and guidelines for its inclusion of workers ensuring social justice for women. In a way social awareness and its implementation would be based on impartiality.

His struggle for Gender Equality: Dr.B.R.Ambedkar’s dream would be rewarded when all women are provided equal status in society. Though Indian women in current era have developed in many ways including educational settlement, career opportunities but still it is deeply threatened with communal malevolence like cases of dowry, lynching, and rape. Today the magnificent growth of Indian women is widely seen forwarding to the highly proceeded, mainly equal treatment with male counterparts but still it is to be taken for consideration that equal rights and opportunity should be start which will result in freedom in every aspect of religious, caste, gender identity. His famous remarked shows his apprehension on women’s rights, and it was centred round gender impartiality. Dr. B.R. Ambedkar’s has given slogan related to Unity, Education and Agitation reflects his vision on social equality. Dr.B.R.Ambedkar's inheritance being a socio-political philosopher contributed various factors in modern India. Dr.B.R.Ambedkar advocated the Devadasi or religious prostitutes who were mostly from the marginalised

communities and basically from exploited class to leave the dire religious customs. Dr.B.R.Ambedkar constantly discussed about problems concerning women in maintaining their fundamental rights in most of his political discussions. Being first Indian Justice and Law Minister Dr.B.R. Ambedkar supported family planning Legislative Assembly. He also introduced a Maternity Benefit Bill in 1928 giving importance to women health. During the years of late 1920s, 1930s and 1940s, his views prominently helped in inclusion of better public sustenance for the betterment of women. His famous Mahad Satyagraha (1927) for water usage involves a numerous women's participation especially from the lower castes. His Kalaram Temple Satyagraha basically at Nasik in 1930 shows a record of more than five-hundred women participation in his movement, which reflects restoration of equal treatment of women. Dr.B.R.Ambedkar's wife Mrs.Ramabai Ambedkar was the chief of a women's organization which was established in January 1928 basically in Bombay.

Conclusion

Dr.B.R.Ambedkar was an activist, a founder of social equality and a factual social reformer. His role remains important in determining the social context, reflecting political and civic forms in Indian society which promoting the progression of the social facts in regular and women in specific. His suffrage as a Dalit or from depressed class, revelation to foreign facts and his sensible perspective made him confident to confront the conventional Hindu social class order to reconstruct it with the ideas of social equality, freedom. He considered 'Manu' liable for all dilemma and torture of Indian women. Hindu social class order was targeted by Dr.B.R.Ambedkar for transmitting a typecast role to women. He strongly felt that removal of the immoral gender relations will inspiring the status of Indian women secures an essential need of the procedure of social restoration. His tireless fight for the basic rights of Indian women in various dimensions remains undying. He provoked the enthusiasm to fight for social justice and their basic rights throughout his speeches, views and transformations In Indian women.

Reference

1. Khandekar. Tarachand. "Literature of Revolt and Resurgence". The first All India Dalit Writer's Conference: A Commemorative Volume.Ed. Bojja Thakran. Hyderabad: Dr. B.R.Ambedkar Memorial Trust, 1994.
2. Dangle. Arjun. "Dalit Literature: Past, Present and Future". Poisoned Bread. Ed. Arjun Dangle. Bombay: Orient Longman, 1992.

3. Bagul.Baburao. "Dalit Literature Is But Human Literature" Poisoned Bread. Ed. Arjun Dangle.Bombay: Orient Longman, 1992.
4. Clarke. Sathianathan. Dalits and Christianity: Subaltern Religion and Liberation Theology in India. New Delhi: OUP, 1998.
5. Ambedkar, B.R. "Women and Counter Revolution", "Riddles of Hindu Women" in Dr.Baba Saheb Ambedkar: Writings and Speeches (1987), Vol.3, Department of Education, Government of Maharashtra.

11. Economic thought of Dr. Babasaheb Ambedkar for Indian Economy

Dr. Ajaykumar M. Palwe

Head, Department of Economics, Babuji Avhad Mahavidyalaya, Pathardi.

Abstract

This paper discuss about the contributions of Dr. B.R. Ambedkar in the field of economics. The major contribution of Babasaheb in the sub fields of economics like public finance, agricultural economics, problem of caste system in economic development, idea about new water and power policy are the few which is discussed in this paper. Indian economy is mixed economy and have impact of changes in social, political and economical changes before and after independence. He represented problem of physical and economical exploitation of rural poor through his movements. Dr. Ambedkar has given new socio and political view to Indian economics. Dr. Ambedkar decided to “changeover from economics to law and politics” He argued for fixed gold standard for exchange rate. He told that low exchange rate increases exports and boosts internal prices. He suggested ‘Industrilisation’ as a helpful and effective solution for both agriculture and Indian economy. In his early life he scholarly contributed Indian Economy with his writings. Within middle of 20th century he devoted his life for upliftment of backward classes with constitutional efforts. He was a scholar modern economist and his thoughts background of current scenario. Now the days need liftment of real economical backwards to build economically powerful nation.

Key Words: Indian economy, public fund, utilization, industrialization

Introduction

He was born in British-founded town and military cantonment on 14th April 1891. This was a poor and backward family. With the help of various scholarships he become a graduate in economic and political from Bombay University in 1912 and post graduate in economics from Columbia University in 1913. He has completed his Ph.D. with the subject of Economics in London School of Economics and Political Science in 1922 and become first highly educated scholar within untouchable community in India.

Methodology

Researcher has used secondary data in which research papers, articles are used. Researcher has used collective observation method for current scenario.

Objective

To study the economical thoughts of Dr. B. R. Ambedkar for Indian economy and relevance of these thoughts in current scenario.

Thoughts of Dr. Ambedkar for Indian Economy

Dr. Ambedkar represented problem of physical and economical exploitation of rural poor through his movements. His struggle against the prevailing land tenure system called Khoti was best example of his thoughts of equilibrium.

Dr. Ambedkar stressed on maximum utilisation of public funds. He said that economic wisdom becomes a paramount necessity in the context of a just utilisation of public funds. But mere apparent faithfulness to the original intentions and wisdom are not sufficient in themselves for public expenditure to achieve social well-being. The importance of the third canon of public expenditure takes a special meaning here. 'Economy' in public expenditure does not simply mean a low level of public spending, but it is the intelligent use of funds so that every paise fetches the most benefit. Those in charge of public funds must strive to evaluate alternative methods of achieving the objectives and see to it that leakages do not occur. The canons emphasise that the expenditure decisions should closely relate to the specified objectives and the available resources besides ensuring economy, efficiency and effectiveness in the implementation of government decisions, schemes, projects, etc. Public funds are asset of country it is in large scale but due to corruption and political pressure it does not reach completely to the end beneficiaries.

While the determination of the aggregate level of expenditure is a matter of overall policy based on the democratic willing of the people, allocation of that total among competing demands and the manner of utilisation fall within the domain of these canons. In the present context of high fiscal deficits, a rigorous application of the Ambedkar canons can help reduce the quantum of public expenditure.

Contributions in Public Finance

In 1925, Dr. B.R. Ambedkar wrote a book on "The Evolution of Provincial Finance in British India". In this book he has discussed about the origin, development and mechanism of provincial finance. He has also mentioned about the provincial finance under government of India act 1919. The period which he has covered in this book is from 1833 to 1921. Babasaheb has talked about the problem with the centralization of government finance in India from 1833 to

1871. He showed that in this period the fiscal system was defective with destructive taxes and the expenditure done by the government was unproductive. After 1858, it was noticed that imperial government as the law maker did not administer the country whereas provincial government who administered the country did not have the power to make the laws. Provincial government used to make the budgets and imperial government had the right to finance these budgets. Practically speaking provincial government did not have power to raise its own funds and to create appointments in services. This gave the opportunity to the government of India to interfere in the provincial administrative works. By this Government of India started misusing its expenditures, as a result they came under a terrible financial strain. Ultimately, in 1871, it was decided that provincial government should prepare its own revenue and expenditure budget. There onwards from 1871 to 1876 provincial finance was introduced in the form of a budget. Under this Diarchy system financial responsibilities were divided among the provincial government and the centre.

Ambedkar's Canons of Public Expenditure

Ambedker pointed out that even though the intention of spending the public funds may be correct but still if it is not used wisely then also the planning fails. In this context he has talked about wisdom of Government to spend the public money. By wisdom he was indicating about the knowledge and experience which should be used while spending the public funds in a better way. Another important principle of Ambedkar's canon was economy. By economy he didn't mean less public spending, it basically means how the government should spend the public funds so that they are used optimally.

Caste System as the Major Hurdle in Economic Development of India

In 1936, Ambedkar wrote a speech titled "Annihilation of Caste" unfortunately this remained undelivered. This speech was later on published in 1937. In this speech he had talked about what was implied by the caste system. He pointed out that caste system is not only about division of labour but also the division of labours. His main claim was that caste system in India is hindering the mobility of the labour and capital which indeed impacts the economic development of India. Due to this caste hierarchy, employment in India is fixed by birth which leads to reduction in the mobility of the labour in other sectors.

Dr.B.R.Ambedkar introduced a bill in the Bombay Legislative council on 1937 to abolish "Mahar Watan", which has made the Mahar communities in Maharashtra slaves of the feudal lords. These communities used to live outside the villages and perform duties like village watchman; track the thieves and messengers, sweepers and remove the dead bodies of animals.

To carry out these duties they get “Watan” a small piece of land for cultivation. This made them dependent on the mercy of the villagers and feudal lords.

Conclusion

Dr. B. R. Ambedkar was intelligent economist of their time. He had contributed not only thoughts but also fought for upliftment of exploited. His economic thoughts have been useful to Indian economy and can be used as positive solution for current economic problems in India.

This paper has discussed the important contributions made by Ambedkar in the field of economics. Babasaheb supported modified gold standard to curb the inflationary pressure in India. He discussed about the evolution of provincial finance under the British rule. While discussing about how to spend the public funds he said that the spending should be based on the rules and regulations. Public has an immense faith on government thus it should wisely use these funds in order to achieve the optimal results. Babasaheb was in favour of consolidation of small land holding in India by the state and without any discrimination it should distribute this consolidated land into a standard size to the original cultivators

References

1. Ambirajan. S (1999), “Ambedkar"s Contributions to Indian Economics”, Economic and Political Weekly, Vol. 34. No. 46/47 (Nov.20-26, 1999), pp. 3280-3285.
2. Bagga, P.S (2014), “The Practice of Economics by Dr. Ambedkar and its Relevance in Contemporary India”, Journal of Business Management & Social Sciences Research (JBM&SSR) Volume3, No.10, October 2014.
3. Jadhav Narendrea (1991), “Neglected Economic Thought of Babasaheb Ambedkar”, Economic and Political Weekly, Vol.26, No.15 (Apr.13, 1991), pp. 980-982.
4. Ingle, M.R (2010), “Relevance of Dr. Ambedkar"s Economic Philosophy in the Current Scenario”, International Research Journal, September 2010.
5. Ishita Aditya Ray, Sarbapriya Ray (2011), “B.R.Ambedkar and his Philosophy of Land Reform: An evaluation”, Afro Asian Journal of Social Sciences, Volume 2, No.2.1.
6. Sarkar Badal (2013), “Dr. B.R.Ambedkar Theory of State Socialism”, International Research Journal of Social Sciences Vol.2 (8), 38-41, 2013.
7. Singariay M.R (2013), “Dr. B.R.Ambedkar: As an Economist”, International Journal of Humanities and Social Sciences Invention, Volume 2, Issue 3, P.24-27, 2013.

12. Philosophical thoughts of Dr. B. R. Ambedkar's on Caste

Sagar Simlandy

Assistant Professor in History, Sripat Singh College, Jiaganj, Murshidabad, West Bengal.

Abstract

The term philosophy is derived from the Greek words 'philo' which means 'love' and 'sophia' which means 'Wisdom'. Philosophy thus means 'Love of wisdom'. The four Varnas i.e. Brahmin, Kshatriya, Vaishya and Shudra is an imitation system made from Manusmriti by Manu. In spite of differences among various varnas yet there is a deep cultural unity. Caste is a parcelling into bits of a larger cultural unit. There was only one caste and classes have become Castes through imitation and excommunication. The contributions of Dr. B. R. Ambedkar to the Indian Society and in a very special way to his own brethren who were lurking in the dark for generations together the researcher felt the urge to know and understand deeply the status of the Dalits in the ancient and contemporary Indian Society, the problems that they had to undergo for no fault of theirs and the ways and means through which Dr. Babasaheb Ambedkar tried to empower them especially by using education as a tool. I tried to focus my article on philosophical base of Dr. B.R. Ambedkar on caste.

Keywords: Philosophical ideas, Caste, Education, Dalits, Varnas.

The four Varnas i.e. Brahmin, Kshatriya, Vaishya and Shudra is an imitation system made from Manusmriti by Manu. In spite of differences among various Varnas yet there is a deep cultural unity. Caste is a parcelling into bits of a larger cultural unit. There was only one caste and classes have become Castes through imitation and excommunication. The terms Brahmanism and Buddhism are functionally counteractive. In Brahmanism the idea of 'Karma' refers to ritual action, while in Buddhism it refers to ethical action. In Buddhism the 'Dharma' refers to the natural karmic law of ethical action and the Buddha's teachings and Buddha's social system based on democratic social system.¹ Dr. Bhimrao Ramji Ambedkar was born on 14th April, 1891 in Mhow, Maharashtra. Dr. Ambedkar noticed that the Varna or caste system in the Hindu society is fully based on human inequality. To him, the Vedas, Smritis and Shastras etc. are the causes for the caste system in the Hindu society. Dr. Ambedkar found in Buddhism not only the mechanism

to create a democratic social system, but also a mechanism to liberate individual's class as 'untouchables' and 'backward'.² He wanted to establish a democratic social system based on liberty, equality and fraternity. He was in favour of humanistic Buddhism in lieu of monastic Buddhism.

Dr. Ambedkar envisioned a just society. A just society is a democratic social system. A just society is based on liberty, equality and fraternity.³ To establish a just society there is a need for Sangha, not necessarily monastic, to make these principles a living reality. Indian society is fragmented into castes. Due to the movement of Dr. Ambedkar and other social reformers there has been change in the caste based Hindu society. In the Hindu society an inhuman treatment existed, which was malpractice by the caste Hindus. When Dr. Ambedkar was a boy of nine, he went to visit his father along with his brother Baloram.⁴ The work place of his father was far from the railway station, and no cart man was willing to take them on a bullock cart. They were hungry because they could not get pure water to drink. Due to untouchabilities, they were barred to get water from using public wells. This was the first worst experience of the system of his life. Then another worst experience of the caste system took place in Baroda when Dr. Ambedkar was appointed as the Military Secretary of the - 138- Baroda state according to his promise.⁵ The King of Baroda Maharaja Gaik:ward could not manage any accommodation for his shelter because he was an untouchable. Dr. Ambedkar was highly educated. He found a quarter in a Parsi boarding house and assumed a Parsi name.⁶

At the work place, the Brahmin clerks and upper castes colleagues threw files him as a leper. He could not touch his colleagues because he belonged to Mahar caste⁷. He was not allowed to take part in games in the club and he was only allowed to sit in the corner. No clear assignment was given to him, though he was not a Military Secretary. After few days the parsis discovered that he belonged to Mahar caste and he was threatened by the Parsis. The owner of the Parsi boarding house expelled him and he had to leave Baroda. The Driver of the Tanga was unwilling to take Dr. Ambedkar because he belonged to lower caste. At the work place Dr. Ambedkar had to make his own arrangements for a separate earthen pot for drinking water. He was treated by his staff and peons as a leper.⁸ He was a member of the Viceroy's Executive Council in the pre-independence day. Dr. Ambedkar went with Viceroy and his wife to see the ancient architecture of a prominent temple in east India. The Viceroy and his wife were allowed to enter into the temple, but Dr. Ambedkar was debarred into the temple. On the plea that he was

an untouchable. Like learned Ambedkar many people in contemporary India still suffer from this system of graded inequality. Understanding the origin, genesis and mechanism of caste in India is a very complex problem.⁹

Dr. Ambedkar attempted to link the many chains in the history of India in order to show how the caste system evolved. According to Dr. Ambedkar the main factor for the emergence of the untouchability in Hindus was the religious persecution of Buddhists, while other social psychological factors were secondary.¹⁰ The existence of caste in India is due to the notion of inequality imposed by religion, which gives rise to social and cultural practices. If these social and cultural practices would remove, then graded of inequality based on caste would be annihilated. This is a simple formulation of the quite complex issue of caste. - 139- The smaller tribal societies or pre-imperial societies were not based on a graded system of inequality or caste. But there was class system. These societies often exhibited unethical and immoral aspects, like in cast, alcoholism, war mongering, and savage practice of ritual sacrifice. According to Buddha, the happiness of human and society lies in ethics and not in rituals.¹¹ Dr. Ambedkar understood the Buddha's awakening under the bodhi tree was a true revolution. This revolution began as a religious revolution. It is a social and political revolution. The Buddhist world view has emerged during the empire of Ashoka based on liberty, equality and fraternity. This is the universal message of Buddha on people without castes, creed, religions etc. The priestly class was given the equal punishment and treatment as that of the common people.¹² He did not persecute the Brahmins, yet the Brahmins lost their social prestige as the majority of the people abandoned the animals' sacrifices that the Brahmins officiated. The rule of law was established during the reign of Ashoka. Dr. B.R. Ambedkar in his book 'Revolution and Counter revolution in Ancient India' described that after the establishment of the rule of law, the Brahmins lived as a down trodden classes for the nearly 140 years of the Mauryan Empire.¹³ Pushyamitra Sunga of the Samvedi Brahman clan tried to destroy Buddhism as the state religion and he fought against Buddhism to establish the Brahmin rulers of India with political power of the state behinds it through murdering Ashoka's grandson, Emperor Brahadratha, in 185 B.C. Pushyamitra launched the violent movement against the Buddhism. Thus, under the Sunga Dynasty the counterrevolution began against Buddhism has emerged. During Sunga Dynasty various Brahmanical text books were written for counter Buddhism.¹⁴ According to Dr. B.R. Ambedkar, the Manu Smriti, the Bhagavad Gita, Shankaracharya's Vedanta, the Mahabharata, the Ramayana and the Puranas are all post-

Maurayan texts which serve as sources of inequality. To him, the 'Broken men' were defeated tribal groups of ancient India. The primitive societies were breaking up and transformed into the larger settled societies of imperial India.¹⁵ The 'Broken men' had no education and economic development etc. The cow eating is the main source of untouchables. There is a struggle between Buddhism and Brahmanism for supremacy. The cow eating politics of present day India has its roots in the counterrevolution of the Brahmans against the Buddhists. The Muslim - 140- invaders killed Buddhist monks. This is the main cause of the destroy of the Buddhism. According to Dr. Ambedkar, religion based on propaganda, if propaganda fails, religion must disappear. Without priestly class religion must disappear. To him, the Buddhist Bikkhu Sanga would be taken the responsibility to spread the Buddhism.¹⁶ During the Medieval and colonial periods there existed the struggle against the Brahmanism the Saint-poets like Kabir, Nanadnar, Chokamela and Tukaram came front from untouchable castes or backward classes and reflect 'Buddhist' sentiments. Their teaching is marked with anti-caste and anti-Brahmanistic ideas. They emphasised in their poems the liberty, equality and fraternity. They hatred the caste based Hindu society. According to them, caste based Hindu is responsible for inequality and degradation of women. Ambedkar's life and mission was to annihilate caste and create a new society based on liberty, equality and fraternity.¹⁷ He wanted to bring structural change in Indian Society. ¹⁸ The caste preface 'The Buddha and His Dhamma', Dr. Ambedkar speaks of the purpose of the Dhamma as a creation of Dhamma Rajya, an ideal society based on liberty, equality and fraternity. Dr. Ambedkar was trying to revive the original ideas of Buddha's reconstruction of the world. He called this vision as Narayana or New Buddhism which is a universal model applicable to all societies. system is no different from the social division between slaves and slave owners in ancient Greek and Roman society Both in theoretically and practically the caste system is complicated one. Practically, it is an institution that portends tremendous consequences.¹⁹ It is our national problem and matter of Hindu social order. Manu's Hindus law prohibited inter-dining, intermarriage and physically touching. Indian caste problem would become a world problem. Theoretically, the caste has defamed by the great scholars like Mr. Senart, Mr. Nesfield, Sir H. Risley, Dr. Ketkar and so on. Dr. Ambedkar has pointed on the four scholars and their definition of caste.²⁰

There are several theories that explain the rise, growth and sustenance of caste system in India such as, the Divine Plan theory, Racial Antipathy theory, Occupational or functional theory,

etc. A "caste" is not a class. Caste is something more than a class. The caste structure is not based on economy or wealth.²¹ It is the caste, which determines an individual's social position in the social hierarchy. The second aspect, which distinguishes caste from class system, is the inscriptive nature of the social status, which the individual acquires that cannot be improved or changed. ^ The persistence of the caste system as a socio-historical reality over the centuries and the changes it has undergone or has been undergoing at the present times are not easy to grapple with and are even more difficult to explain. Stratification of society is a universal phenomenon but caste as a system is peculiar to India. Contrary to what some Hindus and intellectuals say, caste is not found in other countries: what is found in countries that did not come under the influence of Hindu culture is not really castes but caste-like practices.²² Caste is characterized by birth and ascribed status. The caste system ensures prestige, power and privileges for some and inherited deprivation and subjection for a large number of people who were forced to work and produce wealth to keep the upper castes in comfort besides doing all unpleasant hazardous jobs. The caste system is based on graded inequality and therefore those who suffered from deprivation and destitution could not unite and protest against the system. In India patriotism and caste cannot go together.²³

Ambedkar made a comprehensive enquiry about the then existing Hindu social order and argued that the 'Hindu Social Order' had the sanction of Hindu religion. In his works that included "Philosophy of Hinduism", "Hindu Social Order; Its essential principles" and "Annihilation of Caste", he attempted at explaining, interpreting and criticizing the Hindu Social Order and came up with his own normative ideas of an alternative system of society which was to be based on justice.²⁴ For Ambedkar, the existing social order was formed on the basis of Hindu religious norms and these were deeply rooted in the system of Hindu Chaturvarna (or four classes).²⁵ In his essay "Hindu Social Order: Its essential principles", he mentioned that human rights did not find any place in the social order and the social order was based primarily on class or varna and not on individuals. He explained that originally there were four varnas: "Brahmins (Priest)", "Khasatriya (Warriors)", "Vaishyas (Traders)" and "Shudras (Servants)",²⁶ later untouchables were added as the fifth class (Panchama) 10• However, he maintained that the social order was not limited to five divisions only; these got further divided into sub-class or sub-castes resulting into hundreds and thousands of them. In the same essay he analysed the position of an individual in relation to the society and stated that: "The unit of Hindu society is not the individual Brahmin or the

individual Khasatriya or the individual Shudra or the individual Panchama.²⁷ Even the family is not regarded by the Hindu Social Order as the unit of society except for the purpose of marriage and inheritance. The unit of Hindu society is the class/ varna.

On the issue of who created the caste system, Ambekar felt that there is no uniformity. The Rik Veda says that the four varnas - Brahmana, Kshatriya, Vaisya and Sudra - were created by Prajapati.²⁸ It does not mention which Prajapati (as there were several Prajapatis mentioned at various stages in the evolution of Hinduism) created the four varnas. But even the point that Prajapati had created the caste system is disputed. Even Hindu theologians believe that the caste system was created by Brahman while few others feel that it was created by Kashyap.²⁹ But a vast majority believe that the varna system was invented by Manu. On the issue as to how many varnas were created, again there is no uniformity.³⁰ The Rik Veda 61 says that four varnas were created namely, Brahmana and Sudra. Even though we come across several castes in the present time in the form of sub-castes and sub-sub-castes, the basic distinction of caste as outlined in the Vedas - Brahmana, Kshatriya, Vaisya and Sudra - is still maintained. The present day castes are divided and multiplied.³¹

References

1. Chattopadhyaya, D. P. 1989. Social and Political Philosophy: Some Aspects. In Chattopadhyaya, D. P. (ed.) Essays in Social and Political Philosophy. New Delhi: Indian Council of Philosophical Research & Allied Publishers, p.4.
2. Arora, N. D., Awasthy, S. S. 2008. Political Theory and Political Thought. New Delhi: Har Anand Publications Pvt. Limited, pp.72-73.
3. Acharya, A. 2008. Liberalism. In Bhargava, R., Acharya, A. (ed.) Political Theory: An Introduction. New Delhi: Pearson Longman, p.237.
4. Arora, N. D., Awasthy, S. S. 2008. Political Theory and Political Thought. op. cit., pp.74-75.
5. For details see Miller, D. (ed.) 1987. The Blackwell Encyclopaedia of Political thought. Oxford: Basil Blackwell.
6. Arora, N. D., Awasthy, S. S. 2008. Political Theory and Political Thought. op. cit., pp.68-72.
7. Details for this aspect can be had from, Bhargava R, Acharya A. (ed.) 2008. Political Theory: An Introduction. New Delhi: Pearson Longman.

8. Chattopadhyaya, D P. 1989. Social and Political Philosophy: Some Aspects. In Chattopadhyaya , D P. (ed.) Essays in Social and Political Philosophy. op.cit., p.4.
9. Massey, James. 2005. Dr. Ambedkar's vision of a just society. In Mohd. Shabbir, (ed.) Ambedkar on Law, Constiution and Social Justice. New Delhi : Rawat Publication, pp.\53- 155.
10. Ambedkar, 8 R. 1987. The Hindu Social Order: Its essential principles. In Dr. Babasaheb Ambedkar Writings and Speeches. (hereafter referred as B.A.W.S) Bombay: Education Department, Government of Maharastra, Vol.3, pp.99-I 06.
11. II. Ibid. p.99.
12. Ibid. pp.99-1 00.
13. Ibid. p.72. .
14. Ibid. p.100.
15. 15 Thorat, S., Kumar, N. 2008. B R Ambedkar: Perspectives on Social Exclusion and Inclusive Policies. New Delhi: Oxford, p.9.
16. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. W.S. Vol.3, op.cit., p. 111 .
17. 17 Ibid. pp.l29.
18. 18 Thorat, S., Kumar, N. 2008. B R Ambedkar: Perspectives on Social Exclusion and Inclusive Policies. op.cit., pp.4-5.
19. . Ibid. p.4.
20. 20 Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. W.S. Vol.3, op.cit., pp.III-113- 80.
21. 21.. Thorat, S., Kumar, N. 2008. B R Ambedkar: Perspectives on Social Exclusion and Inclusive Policies. Op.cit., p. 7.
22. 22. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. WS. Vol.3, op.cit., pp.II3-115.
23. 23. Thorat, S., Kumar, N. 2008. B R Ambedkar: Perspectives on Social Exclusion and Inclusive Policies. op.cit., p.6.
24. 24. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. WS. Vol.3, op.cit., p.43.

25. 25. Massey, James. 2005. Dr. Ambedkar's vision of a just society. In Mohd, Shabbir. (ed.) Ambedkar on Law, Constitution and Social Justice. op.cit., p.158.
26. 26. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A.WS. Vol.3, op.cit., p.95.
27. 2.7 Ambedkar, B R. 1987. Philosophy of Hinduism. In B.A.WS. Vol.3, op.cit., p.95 and p.22.
28. 28... Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. WS. Vol.3, op.cit., p. 98.
29. 29. Ambedkar, B R. 1987. Philosophy of Hinduism. fn B.A. WS. Vol.3, op.cit., pp.38-39.
30. 30. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. WS. VoiJ, op.cit., pp. 96-97.
31. 31. Ambedkar, B R. 1987. Philosophy ofHinduism. In B.A.W.S. Vol.3, op.cit., p.44.
32. 32. Ambedkar, B R. 1987. The Hindu Social Order: Its essential principles. In B.A. W.S. Vol.3, op.cit., pp.97-98.
33. 33. Ambedkar, B R. 1989. Annihilation of Caste. In B.A. WS. Vol.!, p.57.
34. 34. Thorat, S., Kumar, N. 2008. B R Ambedkar: Perspectives on Social Exclusion and Inclusive Policies. op.cit., p.7.
35. 35. Ambedkar, B. R. 1989. Annihilation ofCaste. fn B.A.WS. Vol.1, p.27.
36. 36. Ambedkar, B. R. Annihilation ofCaste. available at <http://ambedkarquotes.wordpress.com> accessed on 06.06.2007.
37. 37. Massey, James. 2005. Dr. Ambedkar's vision of a just society. In Mohd. Shabbir (ed.) Ambedkar on Law. Constitution and Social Justice. op.cit., p. I 64.
38. 38. Ambedkar, B R. 1989. Annihilation of Caste. In B.A. W.S. Vol.1, p.63.
39. 39. Massey, James. 2005. Dr. Ambedkar's vision of a just society. In Mohd. Shabbir (ed.) Ambedkar on Law, Constitution and Social Justice. op.cit., p.164.
40. 40. Bharill, Chandra. I 977. Social and Political Ideas of B R Ambedkar. Jaipur: Aalekh Publishers, pp.202-203.
41. 41. Ibid. p.219.
42. 42. Ambedkar, B R. 1989. Annihilation of Caste. In B.A.W.S. Vol.!, p.67.

13. Dr. Babasaseb Ambedkars thoughts about Human and Fundamental Rights

Sanghamitra Chavhan

Associate Professor, N. J. Patel College Mohadi, Disst. Bhandara.

Abstract

Many great men have been born on the holy land of India. He worked hard day and night to transform the society. Dr. Babasaheb Dr. Babasaheb was a versatile personality. He had perfect knowledge and information of each field of society. Dr. Babasaheb Ambedkar was a versatile personality. He had perfect knowledge and information of each field. With his infallible oratory and skillful leadership in various fields like social, religious, political, economic, educational, law, journalism, Dr. Babasaheb Ambedkar conveyed the message of bringing the dark life of the exploited into the mainstream. Dr. Babasaheb Ambedkar not only had book knowledge but also reformed the society they also knew how how to bring it. That is why his ideas are so important for the That is why his ideas are betterment of contemporary society.

Dr.babasaheb emphasized the social and economic dimensions of democracy to and overcome tradinal barriers existing in the society. He gave an expression to the objective of economics democracy by corporating the Directive Principles of State Policy in the Indian Constitution.

Keywords: (Improvement, contemporary, betterment, priority, versatile etc)

Introduction

Dr. Babasaheb Ambedkar belives in natural law maintain social control in society. He has no faith in the existence of God or in the other wordly and supernatural, limaginary conceptions. The ideals have come to be focused more upon the present world, upon the social and humanitarian factor in place of belief in the personality of God and the immortality of the individuals.Dr. B. R. Ambedkar worked trough out the life for abolish the untachability in society. Also he tried the for improvement the status of woman in the society. The caste system also restricts change of place and change of class by eliminating prospectus of promotion to any caste or class through hard work. He changed the paptern of existing cast system in India. Dr. Ambedkar says, social and individual efficiency requires us to develop the capacity of an individual to the point of competency to choose and to make his own career. Cast system is based

on Varna system which avoided the natural structure of society.. The society, because lack of opportunities and limited resources, cannot achieve the benefits of large scale production. Rigidity of caste system maintain absolute inequality as the guiding principal in socio-economic relationship. Dr. Ambedkar explained the "annihilation of caste" as one of the pre-requisites for the rapid economic development of the country. with support equality and justice. Dr. Ambedkar played an important role in democratic polity and the foundation of democracy. He created many laws with context to labour development.

Dr. B. R. Ambedkar was genius and was known as a great thinker, philosopher. Revolutionary, jurist-par excellence, prolific writer, social activist. However, he tried the best to merge existing vally in the society based on non required contents. His mainly vision was to maintain dignity and justice to deprived class of the society.

Dr. Babasaheb Ambedkar's political thoughts and contemporary political system in India are mechanism with context to Indian society. Dr. Babasaheb Ambedkar has expressed his views on political philosophy in many of his articles, books and speeches. These are Babasaheb's political views. His political views are on Swarajya, Nationalism, Democracy, Fundamental Rights, Minority Protection, Socialism, Communism, etc. Dr. Babasaheb Ambedkar's political views still apply to society today. If the contemporary politicians accept their views, India will really develop politically. Many thinkers, revolutionaries and political leaders have come up with their own ideas on how to make India independent. According to this thinker, Dr. Babasaheb Ambedkar has also expressed his views on Swarajya. But those thoughts are different from others.

Dr. Babasaheb Ambedkar had socialist ideas in mind. He had advocated socialism through many of his writings and speeches. But their socialism was different from that of Russia, China and other communist countries. He did not accept the one-sided socialism of this country. He wanted the socialist system in India to embrace democracy in the political and economic spheres, as well as to establish a socialist system by establishing government ownership of industry.

Human Rights in India

Human rights are rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, interdependent and indivisible. Human rights are natural rights which awarded to every individual.

Universal human rights are often expressed and guaranteed by law, in the forms of treaties, customary international law, general principles and other sources of international law. International human rights law lays down obligations of Governments to act in certain ways or to refrain from certain acts, in order to promote and protect human rights and fundamental freedoms of individuals or groups.

Human Rights are commonly understood as "inalienable fundamental rights to which a person is inherently entitled simply because she or he is a human being. Human Rights are universal, natural and legal rights. It has international and national legislature.

Characteristics of Human Rights

1. Specific Goal
2. Protection from Judiciary system
3. Effective implementation
4. Support system
5. Legal Support

Dr. Babasaheb Ambedkar's thoughts on Fundamental Rights and Directive Principles of State Policy

Dr. Babasaheb Ambedkar was strongly opposed to injustice, oppression and injustice. He was strongly opposed to caste discrimination. He used to say in every one of his speeches that caste discrimination is a kid in the society. He understood that society would not be united without destroying this social kid. Dr. Ambedkar was trying to free the people from intellectual and social slavery and bring them into the mainstream of social development.

Dr. Babasaheb Ambedkar's also empsis on the development of minorities in India. Dr. Babasaheb Ambedkar's minority views are also very important. Protecting the interests of minorities is Dr. Babasaheb was the focal point of Ambedkar's thought and work. Considering the injustice done to minorities in Indian society. Dr. Babasaheb Ambedkar has expressed his views on variois parameters for social development.

The Structure of Indian Constitution

It Has 3 Parts.

1. Preamble
2. Part I- Article 1-395
3. Schedules- 1-12 and the Appendix

The Indian constitution, Union government is more powerful and controls on the state government.

Fundamental Rights

Fundamental Right includes in part III of Indian constitution.

Fundamental rights are the rights of human and protect by Supreme Court of India.

Fundamental rights enforced on dignity of the indivisible and help to develop the personality.

There are six fundamental rights

1. Right to equality (Article- 14-18)
2. Right to freedom (Article – 19-22)
3. Right against explanation (Article-23-24)
4. Right to freedom of religion (article- 25-28)
5. Cultural and educational Rights (Article 29-30)
6. Right to constitutional Remedies- (Article 32)

Habeas Corpus, Mandamus, Prohibition, Quo- warranto and Certiorari

Nature and characteristics of fundamental Rights

1. Fundamental Rights explained in detail.
2. Fundamental Rights are not universal and absolute
3. Essential for growth of personality.
4. Fundamental not only covers basic right but also includes social and economical rights.

Directive Principles of State Policy

Indian constitution included the concept of directive principles of state policy in chapter IV (Article 36-51)

Directive principles focus on morals, ideal and values. It's closely attached with fundamental duties. Welfare state is inserted in the concept of directive principle of state policy.

These principles underline the philosophy of democratic Gandhian socialism. Political democracy is inserted in directive principles of state policy. Directive principles of state policy matter of administration and making law. Directive principle helps to government for doing certain things to achieve goals. Directive principles are not enforceable in the court. Directive principles give importance to social, economic and justice.

Fundamental rights are closely attached with directive principle of state policy.

Scope of Directive Principles of State Policy

1. Directive principle of state policy provides the guidelines for creating social order.
2. Social, economical and political aspects cover in directive principle of state policy.
3. Useful in social objectives of legislation and administration.

4. Helpful in collective administrative decisions and involving in exercise of discretionary power.
5. Directive principle of state policy is result and procedure oriented.
6. Implementation, creation and evaluation of administrative policy actions.
7. Controlling on various government organizations.
8. To focus on the human values, ethic and morality.
9. Useful to planning and finance commission.
10. Directive principle plays an important role to protect and improve the environment and movement, historical interest.

Types of Directive Principle of State Policy

There are mainly 4 types of directive principle of state policy

1. Economic Principle

These principles emphasise on equal economic status in society. It is against economic discrimination and raising valley between poor and rich.

2. Socialistic Principles

1. These principles focus on the social equilibrium for livelihood for all citizens.
2. Equal distribution of wealth and material.
3. Suitable wages and salary.
4. Restriction and prohibition on liquor and narcotics, drugs.
5. Save environment, protection of wild life, forests, monuments and national importance.
6. Free primary and compulsory education.

3. Economic Principles

1. Independent Judiciary
2. Healthy role of Panchayat Raj System.
3. Common civil code, rules in the nation.

4. International Principles

1. To permit international peace and security.
2. For maintaining cordial, honourable relations with other nations.
3. Forcing to maintain international law and treaties.
4. Dissolving international dispute by arbitration.

Directive Principles of State Policy Have Certain Characteristics

1. Directive principles are nonjusticiable.
2. It works like positive direction to state to act in a particular manner.

3. Welfare of human being is a main aim of directive principle of state policy.
4. Attachment with land, agriculture, industrial, reform.
5. Schemes for rural development and compulsory primary education.

Conclusion

Economic Thought of Ambedkar was divided into two parts. He mentioned details about financial position and administration of East India Company in his books. He wrote many ideas about finance and administration. He also elaborated about growth of finance of Provinces. The third was very important one about Problems of Indian Rupee. Economic ideas in monetary reforms about problems of Indian Rupee. He insisted about stability in money value. Unstable conditions led problems of Indian Economy. He was a Social Reformer. He gave number of poverty eradication programmes for removal of poverty. He protected poor people. He often stated words of reducing inequalities of income and wealth and to set up a socialist society based on equality and justice and absence of exploitation. He supported

Reference

1. Ambedkar B.R : Annihilation of cast
2. Ambedkar B.R : Who were the shudras
3. Ambedkar B.R : Budhas and his Dhamma
4. Ambedkar B.R: Riddles in Hindusm
5. Kasabe Raysaheb : Ambedkar and Marx, Sugava publication ,Pune .
6. Bagul Baburav : Ambedkar Bharat, Sugava publication ,Pune.

14. Analysis of Major Economic thought of Dr. B.R. Ambedkar

Dr. Sanjay A. Pandya

Dept. of Economics, Saurashtra University-Rajkot.

Dr. Harshida G. Jagodadiya

Dharmendrasinhji Arts College-Rajkot.

Abstract

Dr.B.R.Ambedkar, was an Indian jurist, economist, politician and social reformer. He was the chief architect of the Constitution of India and independent India's first Minister of Law and Justice. Compare to his contribution in the field of law, politics and social movement, his contribution in the field of economics is less known. But it also true that Dr. B.R. Ambedkar was an economist by his basic training, not only that he had bright vision about Indian economy and Indian economic problem. He had a vision of the immediate and future challenges of the economy. The present paper is a small attempt to summarize Dr. Ambedkar's deep thoughts on economics and diagnosis of the problems of the Indian economy.

Introduction:

Bhimrao Ramji Ambedkar (April 14, 1891 – December 6, 1956), also known as Babasaheb Ambedkar, was an Indian jurist, economist, politician and social reformer. He was the chief architect of the Constitution of India and independent India's first Minister of Law and Justice. In his early career he was an economist, professor, and lawyer. His later life was marked by his political activities; he became involved in campaigning and negotiations for India's independence, publishing journals, advocating political rights and social freedom. In 1990, the Bharat Ratna, India's highest civilian award, was posthumously conferred upon Ambedkar. Compare to his contribution in the field of law, politics and social movement, his contribution in the field of economics is less known. But it also true that Dr. B.R. Ambedkar was an economist by his basic training, not only that he has bright vision about Indian economy and Indian economic problem. He had a vision of the immediate and future challenges of the economy.

Research Statement

Dr. Ambedkar was the multidimensional personality. His contribution in the field of economics is noteworthy. Compare to his contribution in the field of law, politics and social movement, his contribution in the field of economics is less known. Dr. B.R. Ambedkar was an economist by his basic training and had bright vision about Indian economy and Indian economic problem. He had a vision of the immediate and future challenges of the economy. The present paper is a small attempt to summarize Dr. Ambedkar's deep thoughts on economics and diagnosis of the problems of the Indian economy.

Objectives

The chief objectives as well as subsidiary objectives of the present paper are as under,

- (i) To Study the Dr. Ambedkar's view on Indian Economic Problems
- (ii) To Find the relevancy with current Indian economic Problem.

Research Methodology

“The present paper has been prepared by using secondary data. “Secondary data means data are already available I.e., they refer to the data which already been collected and analysed by someone else. Secondary data may either published data or unpublished data.” The most reliable sources have been used for this, mostly from the internet.

Dr. Babasaheb Ambedkar and Economics

It is fact that B.R. Ambedkar was an economist by his basic qualifications. He earned a master degree in economics from the Columbia University-USA, in 1915 and a Ph.D. in economics from the same university in 1917. Dr. Ambedkar was the first Indian to be awarded a Doctorate degree in economics. Not only that he spent tree years in Columbia University-USA and completed 29 courses in economics. Dr. B.R. Ambedkar had published three books in the field of economics dealing with the public finance and monetary economics: Administration and Finance of the East India Company, The Evolution of the Public Finance in British India and The Problem of Rupee: Its origin and Solution. In 1923, he had published his second doctoral thesis at LSE in the form of a book-The Problem of Rupees: Its Origin and Its Solution. This Delves into the evolution of the currency System in India since 19th century and weights into the debate about the desirable currency system and the exchange rate for India. He had extensively worked hard on the problem of the Indian Economy.

Analysis and Discussion of Major Economic Thought of Dr. B.R. Ambedkar:

The Reserve Bank of India (RBI) is India's central bank, which controls the issue and supply of the Indian rupee. RBI is the regulator of the entire Banking in India. RBI plays an important part in the Development Strategy of the Government of India. RBI regulates commercial banks and non-banking finance companies working in India. It serves as the leader of the banking system and the money market. It regulates money supply and credit in the country. The RBI carries out India's monetary policy and exercises supervision and control over banks and non-banking finance companies in India. RBI was set up in 1935 under the Reserve Bank of India Act, 1934. Reserve Bank of India is also conceptualised according to the guidelines laid down by Dr Ambedkar. Reserve Bank of India was conceptualised as per the guidelines, working style and outlook presented by Dr Ambedkar in front of the Hilton Young Commission (also known as Royal Commission on Indian Currency and Finance). It is also said that When this commission came to India under the name of "Royal Commission on Indian Currency and Finance", each and every member of this commission was holding a book named "The Problem of the Rupee – Its origin and its solution" written by Dr. B.R. Ambedkar. This incidence shows his great acceptations as an economist in the world.

Dr. Babasaheb Ambedkar had made concise study on problem of Indian Agriculture. He had written research articles, organised seminars and conferences and also led farmer's movement to solve the problem of Indian agriculture. Dr. Ambedkar views on land holding, collective farming and land revenue are most useful in contemporary situation too. Perhaps, Dr. B.R. Ambedkar is the first Indian economist who examined the problem of fragmentation and division of agriculture land. The tradition definition of land holding was "chance of production sufficient to keep himself and his family in reasonable comfort after paying his necessary expenses". Dr. Ambedkar criticized traditional definition of economic land holding and redefined that small size of holding is one of the major causes of low productivity but economic land holding is not depending upon the size of land holding but proportion of factor inputs to the production. Dr. Ambedkar advocated the collective and co-operative farming in the country. His thoughts are quite relevant even today. Because India is an agrarian based country and even today half of the total population depends on agriculture for their livelihood. India has small and fragment land holdings. Average size of field in India is very small. Dissimilarity regarding land ownership too is observed. There are 81.3 marginal and small farmers owning only 38.8 % of the total agriculture land. While the topmost two classes, Medium and large farmers consisting of just 6.5

own 38.8 land. Agriculture productivity is very low in India with compare too other countries and also compare too industrial and service sector in India. Before almost a century he advocated that agriculture should be converted into an industry which could improve the economy of India. He had said that surplus farm labours should be relocated by providing those jobs in the industries.

Dr. Ambedakar had also contributed in monetary economics. In his famous book, The Problem of Rupees :Its Origin and Solution, he offered an extraordinary exposition of the evaluation of Indian currency in terms of its form as medium of exchange and its equivalence in terms of precious metals, such as gold and silver. Thus, Ambedakar was a famous advocate for the gold standard. His stance to promote the gold standard was in opposition to the proposal that India should follow the gold exchange standard, as suggested by John Maynard Keynes, a British economist whose ideas fundamentally changed the theory and practice of macroeconomics and the economic policies of governments in the 20th century. According to Dr. Ambedakar in a developing country like India could not afford gold exchange standards and that it could further cause inflation and price rise. Because of this reason, he wished that more attention be given to price stability, rather than exchange rate stability. Ambedakar's readiness to present ideas differently from the greatest economists of the twentieth century, such as Keynes, and to justify his ideas, is a testament to Ambedakar's readiness to monetary economics.

Women's empowerment is being discussed and promoted around the world today. When almost a hundred years ago, Ambedakar had made serious efforts for women's rights and empowerment. Dr. Ambedakar spent his whole life for the betterment of Indian society as well as women and other under privileged sections. He started his movement in 1920. Dr. Ambedakar raised his voice against the Hindu social order and social system through his renowned journal Mook Nayak in 1920 and Bahiskrit Bharat in 1927. He always advocated on the gender equality and women education. He was also a strong advocate of family planning measures for women in Bombay Legislative Assembly. Ambedakar was an true example of inspiration of many classes of society.

Dr. B. R. Ambedakar had made in-depth study of Indian Agriculture. He had written research articles, organised seminars and conferences in order to solve the problems of agriculture and farmers, also led farmer's movement. His thoughts on agriculture are found in his article "Small Holdings in Indian and Their Remedies"(1917) and also in "Status and Minorities"(1947). He mentioned that holdings of lands by few people is an acute problem of

Indian agriculture which has various disadvantages, like difficulties in cultivation and utilization and resources, increasing cost, low productivity, inadequate income and low standard of living. According to Ambedkar productivity of agriculture is related to not only with the size of holdings of land but also with

Even today about 90% of the people in the country work in the unorganized sector and they are deprived of various social security schemes. Dr. Ambedkar had proposed an insurance scheme to every Indian when he was labour minister. It reflects the long-term vision of dr. Ambedkar's about happy and secure life of common Indian and his family.

Conclusion Remarks

Dr. Ambdakar was one of the most illustrious sons of India of this century. He had Dr. Ambedkar was the multidimensional personality and had contributed in many fields. His contribution in the field of economics is noteworthy and contribution as an economist unforgettable. His vision for Indian economy and problems of Indian economy is relevant even today.

References

- Jadhav Narendra (1991), "Neglected Economic Thought of Babasaheb Ambedkar", Economic and Political Weekly, New Delhi.
- Das Satyajit Das (2015), "Ambedkar and woman rights: An analysis" International Research Journal of Interdisciplinary & Multidisciplinary Studies (IRJIMS), A Peer-Reviewed Monthly Research Journal (Online), Volume-I, Issue-I.
- Omprakash Sonone (2016), "Economic thoughts of Dr. B. R. Ambedkar for Indian economy", researchgate.net/publication.
- Malkani Sunil (2016), "Economic ideas' of Dr. B.R. Ambedkar and its relevance for Indian economy", KCG-Journal of Social Science, Ahmadabad, Gujarat.
- Kothari C R & Garg Gaurav (2014), "Research Methodology-Methods and Techniques" third Addition, New Age International (P) limited Publishers, New Delhi.
- B.R.Ambedkar, Wikipedia, the free encyclopaedia

15. Dr. Babasaheb Ambedkars Educational thoughts and his Contribution to Education

Dr. Surwase Nitesh Premnath

Assosiate Professor, History, Shri Vijaysingh Yadav, Arts & Science College, Peth Vadgaon.

Mahatma Phule was the first one to raise the issue of education for backward castes and then Dr. Babasaheb Ambedkar, the Constitution maker of India who strived to secure rights for the depressed classes and fought for their liberation. Mahatma Phule who is pioneer in work of eradication of untouchability, Education to untouchable, Education to women, removal of cultural inequality to make free from Economical exploitation, Equal status to women, support for Develop agriculture and Education to Society etc. This work of great social reformer Mahatma Phule is historical, cultural and Educational declaration for revolution in India. Dr. Babasaheb Ambedkars philosophy of life was influenced by Buddha, Kabir and Mahatma Phule.

Before Dr. Babasaheb Ambedkar Education was rare in all over country. As per “Chaturvarna” only upper class was permitted for education and others are away from education.

Educational Thoughts

Dr. Babasaheb Ambedkar believes that Education can develop awareness to illiterate people. New meaning is going to get through education. According to Dr. Ambedkar new meaning of life will achieved through education and people will become self- help, self-dependent and real honest, this movement he started through education. He warns people that “You can remove your own slavery”. It is humiliating to live life by losing self- honesty.

Education is change; this is base of Dr. Babasaheb Ambedkars philosophy. Education will make man free from any kind of exploitation according to him. Education will make man to understand good and worse. We are able to recognize world and human civilization, there were thoughts of Dr. Ambedkar on education.

Education is thing which constructs individuality or personality. Through moral behavior it was not only intended to develop individual life but of make democracy successful. Education is the express way to get social democracy as well as to remove every kind of inequality. Education is the base or Foundation for social Economical and political revolution, for this foundation of his philosophy is “Education, united, agitates”.

Education is protection and preservation for social equality and freedom. Dr. Ambedkar believed that Education can maintain and develop freedom, equality and brotherhood. He has started his educational work with such thoughts.

Aim of Education

In social reformation Education is important one. Through education individual is developing intellectual and mentally. We can achieve political freedom through education. Over all development of individual can achieve through education. Freedom was going to achieve through education and freedom can achieve through value education, Dr. Babasaheb principle understood freedom, equality and brotherhood, for this “Education for all” is aim of Dr. B.R. Ambedkar.

Primary Education

Primary education is foundation education. This is beginning of education. It is important step in life of every child in this stage good qualities, Equality co- operation, civilization is going to carry. In this stage students should not learn only how to read and write but they must literate. For this Babasaheb forced that primary education must be compulsory. People those who live in slavery they can develop awareness among them through education. Education of poor people can successfully complete from the fees of rich people. Thoughts of Dr. Ambedkar are motivating for primary education and therefore according to him responsibility of primary education must be on Government.

Secondary Education

He emphasized on even with primary education to secondary education. School is the place where good citizens are made. Even good citizens are made by best teachers.

Higher Education

The condition of higher education in pre- independence period was worse. University should not be for administration but for knowledge. To acquire knowledge and to donate knowledge must be activity in university. University should go to the door of common man. University should not be center of examination but it must be Centre of knowledge and science. Poor, untraded people in our country must get higher education it is the opinion of Dr. Babasaheb Ambedkar. Dr. Ambedkar stressed the importance of research in the Universities.

Education for Women

In social structure place of woman is important therefore Dr. Babasaheb has advocated education to woman. He has burnt ‘Manusmruti’ at ‘Mahad’ on 25th Dec 1927, here he said that if woman is educated then only next generation will be formed. According to Dr. Babasaheb

Ambedkar there must be equal education to male and female, they must be co-educated and given one kind of education.

Teacher

Education must be reading available to everyone. School is place where teacher is made. Teacher should be well trained and psychiatrist. He must have knowledge of psychology. Teacher is pioneer of country, who is leading society teacher should not be addicted and having good kind of thoughts.

Education Work

Dr. Babasaheb has started his educational work from 1924. He has started hostels for backward students in Solapur, Panvel and Thane. Many hostels were developed, Because of these hostels primary and secondary education become available. But untouchable student was away from higher education.

He has established “Bahishkrit Hitkarini Sabha” to get Dalit known about their rights. The aims and objects of the new organization broke little new ground but rather re- started the methods for seeking improvement that here current in the movement in the Desh and Vidarbha at the time.

- 1) To promote the spread of education among the depressed classes by hostels or other means.
- 2) To promote the spread of culture among the depressed classes by opening libraries, social centers and classes or study circles.
- 3) To advance and improve the economic conditions of the depressed classes by starting industrial and agricultural schools.
- 4) To represent the grievances of the depressed classes.

Dr. Ambedkar has founded “People education society” in Mumbai on 1945. He has started “Sidharth College” in Mumbai on 1946. In 1953 he has established Sidharth Commerce College. Even he has established Sidharth law college from these college students. Were renowned in different fields like literature, drama, sports etc. Dr. S.G. Malase, Prof. Ramesh Tendulkar, Arvind Deshpande, Sulbha Deshpande, Lalan Sarang, Suresh Khare, Dr. Bhimrao Kulkarni, Adv. B.C. Kamble, N.M. Kamble are reputed students from these college. He has established Milind College in Aurangabad, 1950. Even Marathawada University in Aurangabad which was established in 1958 but later it was named as Dr. Babasaheb Ambedkar Marathawada University Aurangabad. It is dedication to the work of Dr. Ambedkar. Marathawada is backward region and

hence student's from this region must get educational help so he has found Milind College in Aurangabad.

Conclusions

Dr. Babasaheb Ambedkar is exceptionally intellectual and talented individual. He has protested against social inequality. He has organized people and to fight against exploitation. Dr. Babasaheb Ambedkar has devoted to education field with ideals of Gautama Buddha, Sant Kabir, and Mahatma Phule. Education is key for development of nation. He is connected with the foundation of Marathawada University. With his inspiration and motivation many colleges, hostels and schools were started. His efforts and motivation education is available for poor untouchable and downtrodden people. Even in region like Marathawada because of him education facility is available. Indian society was based on inequality and in such society Dr. Babasaheb Ambedkar has opened the way of education to poor, untouchable and down trodden people and in real sense it is revolution in their life. Dr. Babasaheb Ambedkar suggested several policy measures for the development of education starting from primary to University that can be found to be relevant today to make the education sector effective and accountable. So therefore in today's situation thoughts of Dr. Babasaheb Ambedkar on Education are more applicable and important one for development of nation.

References

- 1) Dr. Babasaheb Ambedkar, writing and speeches, vol. I, Government of Maharashtra Bombay
- 2) Dr. Babasaheb Ambedkar, writing and speeches, vol. II, Government of Maharashtra Bombay
- 3) Keer Dhananjay, Dr. Ambedkar life and mission, popular Prakashan Bombay, 1991
- 4) Manohar Yashwant, Dr. Babasaheb Ambedkar Ek Shaktivedh, Sanghmitra Prakashan, Nagpur, 1991
- 5) Bhagat R.T., Shikshanatil Thor Vicharvant, Chaitnya Prakashan, Kolhapur, 2001
- 6) Jadhav Vijay, Dr. Babasaheb Ambedkar Charitra, Manorama Prakashan, Mumbai, 2007
- 7) Vatkar Savita, Maharashtraatil Samaj Sudharkanche Shaikshanik Kary, Dnyansanvardhan Prakashan, Kolhapur, 2011

16. Hindu Code bill and the Emancipation of Women

Dr. Pradnya D. Ghodwadikar

Assistant Professor, Dept.of English, Baliram Patil college Kinwat Dist. Nanded.

Abstract

Dr. Babasaheb Ambedkar was very sad to see the pitiable condition of the Indian women. The agonistic condition of women was everywhere in the society, in lower as well as upper class society. Babasaheb Ambedkar used to say, "I measure the progress of a community by the degree of progress which women have achieved."

In the vedic period the condition of women might have good but in the post vedic period their social condition became worst. They were not allowed to come out of the houses, they were treated brutally. The condition of the widow women was even very worst. The Hindu religious books are responsible for this condition of women. In order to prevent and restrict the progress of women religious demarcation was playing vital role. Babasaheb Ambedkar wrote in detail about the condition of Hindu women in his book 'Rise and fall of Hindu women'. He started the task of women's emancipation from the clutches of religious bondage, from the Dalit, untouchable and downtrodden women of the society. But his work of women's well-being was not limited or restricted to some specific or particular women, it was related to every woman of the society.

Key words : religion, women, emancipation, bondage, progress, slavery.

The Hindu law applied to the Hindu religion was created in the British rule, which was based on the teachings of the theologies like Vedas, shruti and smriti. These theological teachings were recognized as the messages given by the God, and His celestial knowledge. And this Hindu religion was the extract of the celestial knowledge. Religion is based on the God's command so everyone has to obey it and the obedience will lead towards the 'Moksha'; was the assumption of the follower of the Orthodox religion. The priestish hold on the religion was responsible to create differentiation and discrimination between castes, between men and women. Men were held superior while women became inferior. Women were bearing the burden of religious rules and regulations, imposed upon them by the so called religion. Due to this discrimination between men, women, and castes a heterogeneous society was formed.

The theologists of Hindu religion wrote comments on the ownership of Hindu family movable and landed estate and its distribution. Out of those comments two were very prominent, one was of the rule monger Vigneshwra's regulation (11th century) known as - 'Mitakshara' and the other law mongered by Jimutvahan (15th cen) known as 'Daybhag'. these two regulations were accepted by every province of India. Under this system of regulation, the succession of father's property could be inherited to sons but not to daughters. Under the regulation of Daybhag, only sons could inherit the property of fathers and women could get subgoals or alimony. Women had the right of subgoals. But the orthodox religious practitioners were not in favour of paying the subgoals to women; so they found the way way of 'Sati'. due to the Daybhag regulation the tradition of 'Sati' became prominent in Bengal province.

The Hindu code Bill was introduced in the Constituent Assembly on 11th April 1947 by Dr. Baasaheb Ambedkar. His intention behind the bill was to liberalize the personal laws in order to broaden the freedom of the individual and the equality of men and women in the Hindu social system. The main things covered by the bill were, right to property; order of succession to the property and maintenance; marriage, divorce, adoption, minority and guardianship. The principles of the bill were in harmony with the constitutional philosophy of men and women. It was a revolutionary part of social change and equality. Dr. Ambedkar's one of the sacred missions of his life was to reform the Hindu society in general and emancipation of the lot of his untouchable brethren in particular. He was at his best, as a fighter, and this is brought out in his historic battle for the Hindu code Bill in the provisional parliament. His stern decision provides an intimate glimpse of his crusade to reform and rejuvenate Hindu society.

The Hindu code bill was the most controversial bill considered by the provisional parliament. It was brought to the house twice and both the times no progress could be made on the bill. Finally the bill was dropped with the resignation of Dr. Ambedkar, the dynamic force behind the bill, due to the mounting opposition within and outside the parliament. The bill which was designed to bring radical changes in the Hindu society could not succeed. The government failed to pass the bill because the organized opposition was in majority. The opposition compelled the government to change the plan.

The property including both movable and immovable should be acquired by a woman. The acquisition should be made by a woman before and after marriage and even during her widowhood from her husband or parents. The share of the property of each unmarried daughter

shall be half that of each son and the share of each married daughter shall be one-quarter of that of each son. The bill was kept forth for referring to the selection committee on 9th April 1948. The parliamentary debates continued for more than 4 years. This was the first lengthy discussion on any single bill in the independent India's parliament. Dr. Ambedkar realised that the congress government was not eager to clear the Hindu code; so he tendered his resignation on 27th September, 1951 to the prime minister Jawaharlal Nehru, he continued to participate in the parliamentary debate till 10th October, 1951.

The Orthodox Hindu and the president of the constituent Assembly Dr. Rajendra Prasad and the speaker of the constituent Assembly Anathasayanam Ayyangar were against the Hindu Code Bill. So Dr. Ambedkar resigned from the Nehru's Cabinet. The main task of the committee was to confer equality to the Hindu women. Opposition of orthodox Hindus and delaying tactics of opposition prevented the Bill from becoming an Act. Lastly the bill was split into different parts and with alteration it was conceded. Some legislation were accepted for the betterment of the women; and they are as follows -

1. The Special Marriage Act, 1954

This act permits marriage of -

- a) People from different religious faith without changing their religion.
- b) Stipulate of minimum age of marriage as 18 years for girls and 21 years for boys.

2. Hindu Marriage Act, 1955

This act fixes (a) minimum age for marriage as 18 years for girls and 21 years for the boys. The Act's important feature is that it makes monogamy as universal.

The Hindu Marriage Act 1955, and special marriage act, 1954, were amended in 1976 in order to provide right to a girl to repudiate marriage before attaining maturity.

3. Hindu Succession Act, 1956

This act confers the right of absolute ownership over property and the woman can make will leaving behind her share of property to the heirs, she can divide it among the heirs in accordance with certain prescribed rules for the benefit of women.

4. Hindu Adoption and Maintenance Act, 1956

This act makes it permissible to any Hindu woman -

- a) Who is of sound mind and

- b) Who is not minor and who is not handicapped or if handicapped, whose marriage has been dissolved or husband is dead or has completely renounced the world or has ceased to be Hindu or has been declared by a court of competent jurisdiction to be of unsound mind, to take a boy or girl in adoption.

5. The Suppression of Immoral Traffic in women and girls Act, 1956

This act prohibits trafficking in women and girls for purposes of prostitution. This is against the sexual exploitation of women for commercial purposes.

6. Hindu Minority and Guardianship Act, 1956

Under this Act consent of wife is required for adopting a son or a daughter.

7. The Dowry Prohibition Act, 1961

The Dowry Prohibition act was first legislated in 1961. The act was amended in 1984 to make the offence cognizable, to enhance the penalty both fine and imprisonment and it widened the scope of the act to make it more effective. The minimum punishment for taking or encouraging of dowry has been raised to 5 years and fine of Rs. 15000/-. Offence under this act has been made non-bailable. A new offence of dowry death has been included in the Indian penal code consequently to the amendment in the act.

8. The Maternity Benefit Act, 1961

This act is applicable to every establishment; plantation, mine or factory and provides for payment of maternity benefit at the rate of average daily wages for the period of women's actual absence. The act was amended in April 1976 to cover women who do not fall within the purview of the employees State Insurance Act, 1948.

The Insurance Act 1948 guarantees that all factories should provide the Sickness benefit similarly Factories Act, 1948, Mines Act 1952, Plantation Labour Act 1951, Bidi and Cigar workers Act 1966, which have co-relationship with women benefit, which prohibit the employment of women 7.00 pm and 6.00 am in factories, mines and plantation and regulates the working hours for women.

9. The Medical Termination of Pregnancy Act 1971

This act makes it possible to have legal abortion by qualified doctor on humanitarian and medical grounds. This is primarily a welfare measure to protect the health of women though it has also a family planning aspect.

10. The equal Remuneration Act 1976

This act provides not only payments of equal wages for some work of a similar nature but also for a machinery for its implementation.

11. The Child Marriage Restraint (Amendment) Act 1976

This act provides minimum age for marriage for girls to 18 years and boys to 21 years. The offence under this act made cognizable.

12. The Contract Labour (Regulation) Act 1978

The act regulates the working condition of contract labour, including women, payment of wages and provisions for welfare facilities to the labours engaged in construction work.

13. Criminal Law (Amendment) Act 1983

It was amended in 1983 to make the crimes against women much more strict and effective. A new provision in the Indian Penal Code was made, cruelty against women by the husband and other relations punishable.

14. The Family Courts Act, 1984

An act was passed in 1984 for the setting up of family courts in the country with a view to promoting reconciliation in and securing speedy settlements of disputes relating to marriage and family affairs and matters connected therewith.

15. Indecent Representation of women (Prohibition) Act, 1986

Under this act, representation of women in an indecent or derogatory, denigrating manner in all advertisements and publications is prohibited. Offence under this act is made punishable with imprisonment of either description for a term extending to two years and fine extending to two thousand rupees on first conviction.

16. The Commission of Sati (Prevention) Act, 1987

Under this act commission of Sati and its glorification and for matters connected therewith or incident to such an abatement is punishable by the maximum penalty i.e. death or imprisonment of life. This act provides more effective prevention for a woman (widow) being sacrificed as Sati.

Babasaheb did not differ between male and female. Through his point of view, all the Hindu religious books such as Vedas, Shastras, Smritis, Puranas are responsible for discrimination between men and women. It hinders to maintain liberty, equality and fraternity in society. Dr. Ambedkar realised that to remove the evil practices over women, they should be

safeguarded by constitutional provisions. The orthodox people opposed the bill because Dr. Ambedkar was a Shudra, Untouchable who was interfering in their pious Shastras. To establish a 'new notion of life' of women he suggested that various castes and sub-castes should be abolished from Hindu society. He advocated that inter-caste marriage and inter-caste dining should be established in society. He believed in social as well as political democracy.

References

1. Khairmode, Changdev. B.,(edi), May (2017). Dr. Ambedkar ani Hindu Code Bill, Sugava Prakashan, Pune.
2. Ganjare, M.F., (1976). Dr. Babasaheb Ambedkarnchi Bhashane. Vol 6, Ashok Prakashan, Prabuddha Nagar, Nagpur.
3. Pawar, Daya., Meshram, Keshav., Kalyankar, B.H.,Nimbalkar, Waman., Dr. Bhosale, S.S., Dangle, Arjun., Narke, Hari. (editors). (1993). Dr. Babasaheb Ambedkar Gaurav Granth. Maharashtra Rajya Sahitya ani Sanskriti Mandal, Mumbai.
4. Narke, Hari., Kasare, M.L., Kamble, N.G.,Godghate, Ashok. (ed): (2003) BAWS, Government of Maharashtra, Vol. 17, Part two.
5. Jatava, D.R. (2001) "Dynamics of Ambedkar Ideology", Sublime Publications, Jaipur.

17. Right to Education - A Legacy of Dr. B. R. Ambedkar

Ramanya Gayathri M.

Assistant Professor, Sastra Deemed to be University.

Introduction

“Education is not only the birth right of every human being but also a weapon of social change”, these are the views of Dr. B.R Ambedkar on education. Education is a means by which people acquire ability, talent, information, knowledge, develop their potential rights and responsibilities. It moulds people to understand injustice, viciousness, exploitation and discrimination. Education makes people to explore new ideas and thereby initiating creativity which helps in social change and finally lead to the development of nation. Dr Ambedkar strongly believed that education plays an important role in uplifting the marginalised groups, dalits and unrecognised section in the society. His philosophy of Education focusses on education as an instrument to change the society¹.

Dr. Ambedkar's thought on the need for education was based on the discrimination which existed in Hindu Dharmasastras particularly Manusmritis which has put restrictions on women and lower castes. He also identified that Dalits were degraded mentally, socially, economically, morally due to lack of social status. His idea of education has created a milestone in the Constitution and the amendments which are been made to it.

Ambedkar 's Thought on Education

Education, Empowerment, and Enlightenment are interconnected with each other. It is the root to success, young generation should educate themselves and work together for the welfare of the society. His aim of education is to empower women, downtrodden, untouchables and other economically backward people to come forward in all means. Dr Ambedkar used education to establish liberty, justice, independence and courage to many peoples in the society. He strongly believed that education helps development of society². The main changes that Dr. Ambedkar focussed in education are: -

- a) Compulsory education –Dr. Ambedkar focussed on education at the primary stage to higher education so that people can identify the basic interests of the society. In his slogan the first word speaks about Education, because it pushes a person in building his

character and understand class interest which brings unity. Dr. Ambedkar has stated that true education makes society flourishing.

- b) Women education – Women has been treated badly by the Indian society due to Brahmanism and masculism. Women's position deteriorated due to lack of representation in the society, failure in consideration of their rights. The women during the age of Manusmriti were treated like servants, they were denied education as well as right to property. Dr. Ambedkar asserted that women have to be treated with self-esteem and they should be uplifted in the society. The Constitution drafted by the Dr. Ambedkar gave equal status to women before the eyes of law and stressed on women's education. The constitutional provisions Art 14³, Art 15(3), Art 16(1), Art 16(2) have given more power of equality to the women. The economic independence and right for women were also provided by Dr. Ambedkar through Hindu Marriage Act 1955 which gave women succession right and right to hold property. According to him Women education as well as co - education with men, would make Women think independently and lead to intellectual and mental development.
- c) Education to Dalits - Education is the key bring unity among linguistic communities and downtrodden communities. Dr. Ambedkar stressed that the untouchables should be given generous and technical education. The illiteracy and unawareness is considered as the biggest obstacle in development of humanity. He acclaimed that Dalits should not only be given basic education but also advanced and technical education. Dr. Ambedkar emphasized that employment opportunities to the downtrodden can be provided only by giving them advanced and technical education⁴. He demanded reservations, scholarships for Dalit students to the Government. He showed to the Government that if the scholarships, grants are given in the form of loan and allocation of seats in educational institutions are being done then Dalits will be uplifted in the society. As an initial step to encourage education Dr. Ambedkar advanced a programme of education as part of general declaration of Indian Labour Party before the elections of 1937.

Education in Ambedkar's Constitution

In framing the constitution, the role played by Dr. Ambedkar is earmarkable. At every stage of inclusion of new areas in the Constitution, we still praise the thoughts of Dr. Ambedkar which he was having at that point of time. His step to create a change in the society started on August 29th, 1947 when he was appointed as the chairman of the constitution drafting committee. He strongly believed that equality of religion, gender and caste brings unity in the country. The

Round Table Conference⁷ was a landmark in the history of the Indian Constitution. It gave independence to people of India to redress their grievance by political power and bring Swaraj constitution. The various outcomes in the constitution which came as a result of Dr. Ambedkar thoughts or views are -

- a. Free and Compulsory Education: Article 45 in the Directive Principles of State Policy has been intentionally included by Ambedkar which gives free and compulsory education for all children until they reach the age of 14 years. In tune with the aim of Ambedkar to provide education Government of India passed the Right of Children to Free and Compulsory Education Act or Right to Education Act 2009. The Government in order to realise his vision compulsory education was given from primary stage to higher stage supporting the vision of Ambedkar. As an end result by the Constitutional Amendment Act of 2002⁶ included Article 21-A in the Indian constitution making education as a Fundamental Right.
- b. Minorities Education – Ambedkar always worked for upliftment of Minorities, Dalits and downtrodden from illiteracy. He emphasized this in Indian constitution and brought Article 30 of the Constitution. It mainly emphasis on cultural and educational rights to establish and administer educational institutions.
- c. Linguistic Safeguards – In order to preserve the language and culture of minorities through educational institutions Article 29(1) was incorporated. This provision gave absolute right to the minorities to learn their language, culture as well as pursue higher education, e.g. Aligarh Muslim University, Guru Nanak University etc. To investigate upon the safeguards provided to these minorities special officers are appointed under Article 350 B of the Constitution of India.
- d. Education for Backward Sections of the Society – In order to protect the educational interest of the weaker sections of the society the law makers have included Article 15, Article 17 and Article 46. It gives power to the state to make special provisions for the advancement of socially and educationally backward classes of the society. The main aim is to protect scheduled tribes and Scheduled Caste from social justice and all forms of exploitation.
- e. Secular Education – As a secular country, India gives rights to minorities based on religion and language. Ambedkar's thought process for providing educational rights to the downtrodden is reflected in these provisions namely Article 25(1), Article 28(1),

Article 28 (2), Article 28(3), Article 30. It provides aid to minority educational institutions in the name of religion, race, caste, language or any one of them.

- f. Educational Opportunities - Indian constitution guarantees Fundamental Rights namely justice, equality liberty and Fraternity. It clearly signifies the fact that everyone is equal in the eyes of law and equality of opportunity for education manifests the view point of Dr. Ambedkar. Further the fundamental right to equality of opportunity for educational institutions are guaranteed under Article 29(1).
- g. Teaching in Mother Tongue – It is the Fundamental right of the citizens is to study one own language. Article 350 A points that instruction in mother tongue at the primary stage of education to children can be done to linguistic minority groups to safeguard their interest.
- h. Hindi as Official Language – Dr. Ambedkar stressed for an Official Language which unites people together. On this basis Article 351 emphasize on making Hindi as the official language.
- i. Research and Higher Education – Various Entries in the Constitution of India have given authority to Government of India in education. The institution such as Aligarh University, Hindu University, Delhi University or any other University declared by the parliament will be considered as an institution of National Importance⁷. The Constitution provides for determining standards in institution for higher education or research and scientific and technical institutions⁸.
- j. Education of women – Dr. Ambedkar has always stressed on educating girls rather than boys. The constitutional provisions are also formulated in such a manner to provide education without any discrimination on the basis of sex⁹. National Policy on Education emphasized that education has to be used as a means to improve the status of women. The Policy states, “Education will be used as an agent of basic change in the status of women. In order to neutralize the accumulated distortions of the past, there will be a well-conceived edge in favour of women. “All these are the statements given Dr. Ambedkar while framing the constitution and what he always urged for.
- k. Right to Education – Ambedkar’s ideology is still continuing in the forefront by inserting Article 21 A¹⁰ of the Constitution of India which provided for free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right.

Conclusion

Ambedkar's philosophy of education is completely reiterated in the Constitutional articles and it is still continuing saga. His philosophy stressed on equal rights and opportunities in the field of education. His concept mainly focussed on social change which in turn will remove all economic and development disparities. Education is considered as the backbone of one's own development. Thus he suggested education for the minorities, downtrodden and weaker sections of the society. His stress on Government duty to provide opportunities in education is also well applied in our Constitutional provisions. Ambedkar's view point in attaining education both technical and higher studies will only provide advantage the backward communities and for their employment opportunities was also a recommended fact in our Constitution. Dr. Ambedkar's principle – 'educate, agitate and organize' is an influential instrument of social change nowadays. Dr. B.R. Ambedkar is considered as the symbol of Knowledge because he showed the doors of light and awareness to remove the darkness and illiteracy.

FootNote

1. Dr. Babasaheb Ambedkar: Writings and Speeches, Vol. 1-21, (Edited by Vasant Moon and Hari Narake), Education Department, Government of Maharashtra, Mumbai.
2. Dr. Babasaheb Ambedkar Writing and Speeches, Vol. I, p.15, Bombay: The Education Department, Government of Maharashtra, (1979).
3. Equality before Law – The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.
4. Supra Note.2
5. Round Table Conference (1930-32) series of peace conference organised by the British Government and Indian Political personalities to discuss constitutional reforms in India.
6. Inserted by The Constitution (Eighty- Sixth) Amendment Act, 2002.
7. Entry 63 of the Union List
8. Entry 66 of the Union List
9. Article 15(1) – States shall not discriminate any citizen on groups only sex.
10. Inserted by The Constitution (Eighty- Sixth) Amendment Act, 2002.

18. Dr. Babasaheb Ambedkar's thoughts on Education

Jagrati Maitraya

Govt. K. R. G. Auto. P. G. College, Gwalior (M.P.).

Abstract

This paper aims at Dr. B.R. Ambedkar's views on education. Ambedkar's knew that education was the necessary precondition for the reconstruction of the society on the principles of equality and justice. He fought for the education of masses without discrimination of caste and sex. Participation in the budget to debate he said, Education is something which ought to be brought within the reach of everyone. The education department is not a department which can be treated on the basis of quid pro quo. Education ought to be cheapened in all possible ways and to the greatest possible extent. Taking active part in the discussion on Bombay University Act and Primary Education Amendment Bill, he contributed his views in the reform of Education. He founded the people's Education society, and started colleges at Bombay and Aurangabad. He peatedly with the government the providing equal educational opportunities to all without discrimination was its responsibility however, boys and girls should get the different education. Paper attains to understand the Dr. B.R. Ambedkar's views on education with the uniform education system in India.

Key Words: Dr. B.R. Ambedkar, Education, Social, Equality.

Introduction

"It is the education which is the right weapon to cut the social slavery and it is the education which will enlighten the downtrodden masses to come up and gain social status, economic betterment and political freedom", are the views of Ambedkar. Dr. B.R. Ambedkar's as is well known, the Chairman of the Drafting Committee of the Constitution of India, devoted most of his intellectual, social and political efforts to give expression to his belief in the ideal, struggled throughout his life for securing the rightful place for the discriminated, deprived and downtrodden sections of our society. Through several efforts were made by Ambedkar to establish an equalitarian society in India and had been discussed widely by different scholars yet few atudies are available to project him as a great educationist.

Objectives

To assess the contributions of Dr. B.R. Ambedkar's to Education field.

Methodology

The study was conducted by secondary sources of existing literature through historical, analytical approaches. Method consists, analysis concepts and arguments, synthesize ideas and evidence drawn from different sources, construct consistent and well-supported arguments, discuss an issue in a balanced way, evaluated the ideas and arguments of others, make judgments and express informed opinion.

The writings of Dr. B.R. Ambedkar abound in educational thoughts. On several occasion a number of speeches have been delivered by him. He has written a great many articles, reports and books. He was the originator of Mook Nayak, Bahishkrit Bharat and other Journals. With the help of these letters, speeches, writings and journals a study of his educational thoughts is possible. Ambedkar believed that education was the most important means of raising the people's standard of living. His slogan was "Educate, unite, struggle".

Ambedkar's social-philosophical views rested on the bedrock of egalitarianism. Human dignity and self respect were central to his social philosophy. He wanted to use education to establish justice, equality, fraternity, freedom and fearlessness in society.

According to Dr. B.R. Ambedkar to change the society of its backwardness it is very necessary to spread education. Education eradicates the bias of people which results on to minimize the exploitation, domination, of those people who try to take the benefit of the so called illiterate people.

"If the people get knowledge through education then they can face the problems created by the people who dominate them. Education reforms opinions, it tries to remove the walls built among the people. The biggest gift that is given by the education is that it creates self confidence among us which is considered as the first stage of our development". [1]

Ambedkar furthermore explains that the work without knowledge is blind and futile. He was of the opinion that when people do work without education it is just like to waste human power. He sometimes asserts if a person leading is illiterate he will definitely carry us towards darkness just like that it is the position of our leaders. For him if a leader is not educated and does not encourage the spread of our education then he can drag the whole society towards deterioration. Thus, Ambedkar wants to say is that education is the vital element for the

development of society and human beings. Ambedkar was much farsighted and he talked not only about the primary education. For him the spread of primary education to higher education begets the versatile leaders who carry us towards the betterment. While comparing life with competition, Ambedkar in one of his speeches addresses that:

“The people do not sustain in the struggle of life until they get educated. Since that they get caught in the clutches of social problems such as insult, suppression and desecration. So it is the duty of the existing government to accelerate by providing education”. [2]

In the days of Ambedkar the educational condition of untouchables was very critical. He was of the opinion that: “The untouchables were deliberately being kept away by Brahmins and other castes. They just tried to behave with untouchables as inferior”. It changes in education system after the worse experience with untouchables. According to Ambedkar: “Education is a weapon of eradication of social slavery of economic development of political freedom”[3]. While emphasizing on the need of education he puts forth the demand of law of compulsory education. He knew that the problem of primary education is the problem of nation. He in the conference of Mahabaleshwar held on May 31, 1929 addressed that: “the problem of the spread of primary education is the most dominating one. In the present days these countries who bear the maximum Dalit illiterates don’t sustain in the competition of life. It will take more time if the spread of primary education is dependent on the interest of common people. So it needs to implement a compulsory Act of primary education, so it needs to implement a compulsory Act of primary education”. So what Ambedkar wished through this speech was that there should not only be Acts but it should also be compulsory implemented. He knew that compulsory education requires a lot of expenditure and if this opportunity is given in the hands of local self-government then it faces the problem of money which results in the failure of Act. But actually the position is that our education system is caught in the hands of those who don’t know about it. So, to remove this it needs the free and compulsory education. According to Ambedkar to solve the problem of expenditure the centre and the state government should come forward and make a compromise. Ambedkar further opines that those citizens who can afford to pay the fee should be allowed to pay but those who are economically very weak to pay the fee should be exempted from it. Ambedkar Continues by saying that it should be the moral responsibility of the government to ensure that education shouldn’t be very costly. Even the poor should get free education so that the country should gain its achievement very soon. While supporting this point Ambedkar says that,

“there should not be separate education for boys and girls.”[4] For him education doesn't differentiate the sex.

Relevance of Dr. B.R. Ambedkar's thoughts in the Present Scenario After sixty three years of independence the government realized the importance of thoughts of Ambedkar and wanted to bring them into reality. If a country wants to sustain their existence in modern period then it needs an effective educational system. When this educational system becomes effective, it gives proper shape to the scientific and technical development. If the base of primary education is weak, then what is the use of higher education? There should not be value of saying India as a developing country. Hence to escape from these obstacles central government declared “Right to Education” as a fundamental right from April 1, 2010. On the occasion of this day the dream of Ambedkar came into reality when the prime minister of India declared that the right to education is one of the fundamental rights. When we study Right to Education Act 2009, we come across with many similarities of Ambedkar's thoughts with the provisions in it. While addressing to nation, Dr. Manmohan Singh said that “Indian government is pleading to educate every child in India.”[5] This “Right to Free Education Act 2009” has been implemented since April 1, 2010(No.35 of 2009).”[6] There are some provisions of this Act which shows its roots in the thoughts of Dr. Ambedkar: The Act makes free and compulsory education to all children of India in the six to fourteen years group. No child should be held or expelled or required to pass board examination until the completion of elementary education (up to eighth class). It provides 25% reservation for economically disadvantaged communities in all private and minatory schools. It also prohibits all unrecognized schools form practice and makes provisions for no donation or capitation fees and no interview or parents for admission. This Act is applied to all of India except Jammu and Kashmir.

There should be combine education both for boys and girls. The financial burden will be shared between state government and central government on the basis of “Sarva Shikshan Abhiyan”. In April 2010 the central government agreed to share the funding for implementing the law in the ratio of 65% to 35% between the centre and the state. A ratio of 90% to 10% for north eastern states. Thus, from the provisions made in “ Right to Education Act” it can be proved that the thoughts of Ambedkar before the independence are brought in reality as in “Compulsory and Free education Act” in India to bring children in the flow of education. It helped nation to reduce the traditional monopoly and slavery of ruling class. Ambedkar had already suggested that right to

education should be compulsory and while implementing this government and central government have to make compromise of revenue among them. The most important matter that should be discussed is that the law did 25% reservation for economically disadvantaged communities to be expelled from dominating class in education and combine education for boys and girls. Moreover, the provisions in this will definitely release the Dalits from the dominance of certain classes. Whatever Dr. Ambedkar had thought came into reality with the successful implementation of this Act. The very concept of “night school education” was also the influence of Ambedkar’s thought during the last two decades of twentieth century. Apart from these Dr. Ambedkar highlights on higher education system. According to him, “The education in university should be society oriented. It should be scientific and away from prejudice, it should not be limited with the benefit of certain classes in society. He also adds that the aim of education is not only to teach them but it should enable to teach them how to develop the personality, to increase their intellectual capacities”. In another speech Ambedkar says that, “In the present system university has given very less powers to control the colleges. For him in spite of power of discipline, rejection of approval of college, university needs more powers. If these powers are endowed to university then the colleges will be treated neatly under the supervision of university”. However, when we see the statute of university we come across the various powers endowed to university. By the result of this we have management council, Senate, Academic council and various faculties of university.

Conclusion

Precisely speaking, Ambedkar’s educational thoughts seem to be the milestones for present situation. Whatever changes Dr. Ambedkar had proposed through his thoughts about the education system in primary and higher are in the form of law in modern era. Ambedkar was true in saying when he declared that his contemporary education system was faulty and was at the bottom of degradation of Indian civilization. Whatever it may be, but the decisions taken by central government about the education system have the roots in the thoughts of Dr. Ambedkar. Moreover it can be said that under the obligation of Dr. Ambedkar India is going to become a world power through intellectual human resources which are brought only through education. Not only this but also the decisions taken by University Grants Commission about university and research in it shall be undoubtedly the products of Ambedkar’s thoughts in this era.

References

- 1) Anjanikar Bhagwan. Thoughts from Siddharth College papers, Vidya Upasak Dr. Babasaheb Ambedkar (trans), Nanded, Nirmal Publication, 1999, page 23.
- 2) Dr. Babasaheb Ambedkar's Writings and Speeches, (trans) vol.19, Dr. Babasaheb Ambedkar's Biography means publishing committee, Mumbai, 2005, page 283.
- 3) Dr. Lulekar Pralhad. Anant Pailuncha Samajik Yoddha, (trans) Pune, Sayas publication, 2011, page 77. 4) Ibid, page 77.
- 4) Speech of Dr. Dr. Manmohan Singh delivered on August 1, 2010.
- 5) The Gazette of India, New Delhi, August 2009, part 2.
- 6) Dr. Babasaheb Ambedkar's Speeches and Thoughts, (trans) ed. Dr. Dahat Dhanraj, vol.2, page 142-143.

19. Dr. Babasaheb Ambedkar's thoughts on Education

Dr. Kavita S. Biyani

Assistant Professor, Dayanand College of Commerce, Latur.

Abstract

Educational thoughts of Dr. Babasaheb Ambedkar revealed through his letters, speeches, writings, journals such as Mook Nayak, Buhishkrit Bharat, Janata, Prabuddha Bharat and various essays.

Dr. Ambedkar, the chief architect of Indian constitution, is well known not only as a constitutionalist and a parliamentarian but also a scholar and active reformer all over the world. As a champion of the downtrodden he waged a relentless struggle against the oppressive features of hindu society. Throughout his life, he strove for the establishment of a new social order based on the principles of liberty, equality, justice and universal brotherhood.

Introduction

The writings of Dr. Ambedkar reflects through numerous letters written by him to his colleagues and dignitaries. He has also delivered many speeches on various occasions. He has also written many articles, reports and books. He has also expressed his views among society through several journals such as Mook Nayak, Bushishkrit Bharat, etc. On the basis of these letters, speeches, journals; the study of Dr. Babasaheb Ambedkar's educational thoughts are possible. The present paper will analyze some facts on education through letters, speeches and writings of Ambedkar.

Objectives of the Study

1. To study various letters which reflects Dr. Babasaheb Ambedkar's educational thoughts.
2. To study Ambedkar's speeches delivered on various events.
3. To study Ambedkar's writings on education in brief.

Letters

On 4th August, 1913, Dr. Babasaheb Ambedkar written a letter to Shivanak Gonak Jamadar. He expresses that – “Let your mission be to educate and preach the idea of education to those at least who are near to and in close contact with you.

On 11th December, 1930, Dr. Ambedkar wrote a letter to Amritao Rankhambe, colleague. His words are- “I feel it necessary to write to you that you should study English hard. I am afraid that ignorance to English will be blockade in our social life.

Dr. B.R. Ambedkar wrote to Bhaurao Gaikwad on 7th June, 1930, from London. He says, “It is useless to desire for the leadership unless and until one is cautious about his ability and significance of educational movement.

Speeches

During the period of twelve years from 1927 to 1939, he delivered a number of speeches as he was on various positions in government.

On 12th July, 1927, he spoke on grants for education. It is necessary to spend more money on primary education, fees and commercialization of education, need to cheaper the education, the great disparity in the comparative advancement of the different communities in the matter of education, matter of scholarship etc. He request the honourable Education Minister to spend more money on primary education.

Dr. Ambedkar wanted the untouchables to enter into government services. To do this, they should take higher education. He had planned to open a hostel. In this regard, he spoke on 20-3-1927 at Mahad in the conference held under the auspices of the Kolaba District Bahishkrit Parishad: “They (untouchables) are well progressed in education. Among them 90% are literate. The propogation of education was not only among men but also among women.

Dr. B. R. Ambedkar held the views that entrance into government service will bring about progress in their lives. In this regard, he says, “Hence, I suggest you all, we should pay our particular attention to the higher education. It is better to have one graduate than to have a thousand students who have passed their fourth standard.

On 1-10-1927, he spoke on ‘The Bombay University Act Amendment Bill-2, in this speech, the following issues seem to have reflected-

1. Control of university over the colleges to regulate teaching.
2. Inspection to the colleges
3. What powers should be given to the university
4. Power to disaffiliate the colleges that the university has.
5. Power to amend the ways of the colleges and to compel obedience
6. Importance of Royal Commission on university education in London.

He further says, ‘for the purpose of grant-in-aid from Government Treasury the university alone shall be given to any college except through the university’. The above clause means the university should control the colleges on by enforcing the rules of discipline and to compel obedience.

Dr. Ambedkar insisted women’s education also. Regarding this he spoke at Mahad on 27-12-1927, “The things, knowledge and learning are not for men only. They are necessary to women also. Our ancestor knew this, else, those who were in military services, would not yet given education to their daughters. If you desire to improve your next generation, bear in your mind the proverb, like father like son, an educate your daughters. I hope that you will not cast adrift my advice. Don’t delay to execute it.

Dr. B. R. Ambedkar delivered his first presidential address in All India Depressed Classes Conference held at Nagpur on 8th and 9th August, 1930. In this, he suggested some general principles of life. It must be-

1. Its social status
2. Its economic strength
3. Its educational position

Dr. Ambedkar delivered a speech in the Mahar Conference held at Bombay on 31st May, 1936. This speech is known as ‘What Path Salvation ?’. He says with regard to education- ‘Some youngsters are running after education. After completion of education, your virtues are not valued, your caliber has no scope for appreciation, due to your untouchability. What will you do ?

Dr. B. R. Ambedkar spoke at Daund on 7.11.1937 that “to pay attention to education and give training to them properly”.

On 11-9-1936, Dr. Ambedkar delivered a presidential speech at Pune on the Eleventh Untouchable Students conference. He advised to work hard for gaining knowledge. Only degrees can’t serve, one must have knowledge and character, otherwise it will harm the society. He cited one English quotation-

“No nation can be grateful at the cost of its liberty.”

Writings

Dr. Ambedkar’s writings are multifarious. He has published various books and articles in journals. Though these books and journals, he has expressed his views for education.

In March 1918, Dr. Ambedkar published an article titled- 'Principles of Social Reconstruction' in the journal of the Indian Economic Society. He reviews Bertrand Russel's (1872-1970) thoughts. From educational point of view, this book is valuable. He wrote education means to embody creative impulses. For, "The power of education in forming character and opinion is very great and generally recognized. Education should not aim at passive awareness of dead facts but an activity directed towards the world that our efforts are to create. It should be inspired as a shining vision of the society.

In May 29th 1928, Dr. B. R. Ambedkar sent a printed memorandum concerning the state of education of the Depressed Classes in the Bombay Presidency, to the Indian Statutory Commission. This was sent on behalf of the Bahishkrit Hitkarni Sabha. The topic discussed in it are related to education, employment and political problems of the Depressed Classes. The manuscript discussed with regard to the education of untouchables in fullest details:

1. What did the British Government do about the education of the untouchables?
2. What are the policies of the British Government in the matter of the education of the Depressed Classes before 1855?
3. How Peshwas precluded untouchables as to not to take education.
4. Why British were silent on the question of promoting education among the native population?
5. Discrimination in giving education to Depressed Classes and higher classes.
6. Down filtration theory.
7. Great disparity in the comparative advancement of different communities in the matter of education.
8. Unequal treatment adopted by the British Government.
9. Criticism on Hunter Commission (1882-1883).

On 15-5-1936, a speech was prepared by Dr. Ambedkar for the annual conference of The Jat Pat Todak Mandal of Lahore but not delivered it owing to the cancellation of the conference by the Reception Committee on the ground that the views expressed in the speech would be unbearable to the conference. But, the researcher has included it in his writing.

"Any human being stands in need of requirement for his preservation. Education, of course, is one of them. Education every one must have. Education is a permanent requirement.

But this was not applied by the followers of Chaturvarnya to the lowest castes. If we respect equality, then there can be never discrimination either in any field that offers development.

On 1st August, 1942, Dr. Ambedkar submitted a paper under the title 'Mr. Gandhi and Emancipation of Untouchables' to the Pacific Relations Conference at Mont Tremblant Quebec in Canada. In this, he had stated 'ESSENTIAL PROVISIONS IN THE NEW CONSTITUTION'. In the constitution, he included principle of equality. There should not be any discrimination among people with regard to caste, education etc. He has also included some provisions on higher education. At last, he writes that advanced education among the backward classes is of greater value. Because it is going to them well equipped in future life.

Conclusion

Dr. Ambedkar, the chief architect of Indian constitution, is well known not only as a constitutionalist and a parliamentarian but also a scholar and active reformer all over the world. As a champion of the downtrodden he waged a relentless struggle against the oppressive features of hindu society. Throughout his life, he strove for the establishment of a new social order based on the principles of liberty, equality, justice and universal brotherhood.

References

1. www.shodhaganga.inflibet.com
2. www.researchgate.com
3. www.ignited.in
4. Legalservicesindia.com

20. A Case Study of Societal Inequality and Indian Cast System with Reference to Dalit Literature

Prof. Naresh Shishupal
Jedhe College, SPPU, Pune.

Abstract

The significant notion 'Dalit' is identical with economically deprived, subjugated, and exploited within a specific communal group. This concept is particularly associated with varied Indian caste system. Social marginalisation is universally deals with the social discrimination in various dimensions in every civilised society. As far as India is concerned, it focuses on 'Casteism'. This discussion deals with the significant concept of varied casts in Indian society. It does not comprise the subaltern literary voices of the nomadic tribes, and depressed class of 'Dalits' and other socially deprived group of specific community. These dalits can be called as underprivileged of their primary rights of schooling, ownership of property and a right to equality. These Dalit writers contributed a lot to Dalit Literature which resulted in a voice to all those marginalized groups, which tolerated social discrimination and mistreatment for a long time. Dalit Literature throws light on the liberation of Dalits from this everlasting burden of social slavery. Therefore, these dalits writers use their literary work as a medium to express their annoyance against the varied societal hierarchy which resulted in social degradation. After a long span of time they have become aware of their own social identity as an individual.

Keywords: communal group, socially deprived, Social marginalisation etc.

Introduction

Dalit perception and self-consciousness about their individuality has been fundamentally centred in diverse vivacious and varied artistic scripts and is in addition extensively much-admired in the writings of Arun Kamble, Shantabai Kamble, Raja Dhale, Namdev Dhasal, Daya Pawar, Laxman Mane, Sharankumar Limbale, Bhau Panchbhai, Narendra Jadhav, Urmila Pawar and in numerous writers. The sufferings stand for these Dalit authors is not that of particular personality but for the entire exiled social group. The chief apprehension of study is to illustrate how Dalit authors break the stillness of the surroundings of the unheard mistreatment in the society of these Dalits in our realm with the help of their literary works, and it also shows how

Dalit Literary work has develop into a medium of angry outburst of these stifled influences. This study creates an effort to realize the idea and expressions of these Dalits writers and their expedition from speechless and unreceptive matter of their history to self-realisation. The research study will attempt to make a study of the expansion of Dalit Literary works through its effects on our societal surroundings, social situation of Dalit in our nation, and how these authors create their own history.

Self awareness in socially deprived class: 'Dalit' is a word taken from Sanskrit language which means undeveloped, down trodden, broken. 'Scheduled Castes' and Scheduled Tribes' are the phrases are authorized terms used by Indian government documents to recognized the invincible and clans. The term 'Dalit' was first formulated by great scholar Dr. B. R. Ambedkar, however it got its higher popularity most probably in 1970's as soon as its followers of 'Dalit Panther Movement' of Maharashtra state used this concept relating to a constant memento of their own suffrage of repression which represents dire situation of societal dispossession and communal exploitation. Recently the distinguished concept called 'Dalit' related to the situation of being 'outcaste' in a particular society, since the entire community considered being not enough worth to be integrated in the traditional classified social class formation.

Dire Situation of Dalit

These outcaste individuals were never considered as a part of social class. Financially and politically these individuals had no sources of any income source and social position in government hence inequality having various dimensions its outcome was dire dispossessions led uncertain about their basic rights and social status, self-esteem. Such circumstances are mainly found in underprivileged communities in various parts of India since from many centuries. However these situations prominently remain powerful in its social gradation resulted in suffrage, inferior place and lack of basic right in social amalgamation. They are always deprived of equal social grade, basic rights like getting drinking water, to educate themselves and mostly it combined with unemployment.

Role of Dr.B.R. Ambedkar as a Contributor in Indian History

Many personalities contributed to eradicate untouchability including The Lord Gautama Buddha well known for his preaching in such dire situation. Dalit liberation movement was actively participated by many social reformers in 19th century. Great scholar and educationist Mahatma Jyotirao Phule, Savitribai Phule contributed a lot for eradicating untouchability.

Maharashtra contributed many social reformers like Dr. B. R. Ambedkar which later on arranged numerous reformation movements in it targeted social class for untouchability. His influence was enormously on these Dalit movements which mainly started in various parts of Indian. Dr.B.R.Ambedkar led importance to removal of caste, social class degradation, and mistreatment in society.

Dalit Literature vs Main stream Literature

Lack of basic rights like education resulted in awareness of self consciousness in literary movement. Since many centuries Dalits remain uneducated which would stimulate and persuade them to have a appropriate literary movement registering their protest against the domination of the main stream literature. Indian post-Independence era in which very few individuals of 'Untouchable' communities become aware of their illiteracy maintained a contact with modern education and realized its importance. However this type of literary movements of Dalit literature got distinction in early 17th century in the home land of Dr.B.R.Ambedkar especially for oppressed communities. Such literary movements widely spread to the Indian states like M.P, U.P.,Gujarat, Karnataka, many to name. It's a literature in which the annoyance and bitterness against higher society is expressed mainly. Analysis of its study lifts questions about its position and conditions of the Dalits. Very first poem in Dalit literature well known as Hira Dom, is believed the first Dalit piece of text. Social movement by Swami Achyutanand and his writings exposed a record of tyrannical social construction. Dire Dalit veracity is represented through Dalit literature. This illustration of untouchable communities articulated mainly crossways the caste believed society; it annihilates the clarity of upper social class. The principal objective of Dalit Literature is to liberate Dalits from such horrible situation. Concerned Annoyance and its bitterness of Dalit communities against such terrible social inequity prominently found in the Dalit Literature. The 1970 year played main role in contributing genre likewise from the main stream such as poems, stories, memoir and autobiographic writings by Dalit scholars broadly dealt with themes like identity crisis, self realisation, inequality, social discrimination and revolt. Currently these marginalised social groups have been conventionally deprived of academic prosperity. These social groups are revealing the situations in which they have been endured the inhuman position were forced on them by the upper social class. Dalit Literature posed some questioned in front of the mainstream literature by upper class in which they confront its supremacy. This resulted revolt against upper social class in literature by Dalit writers.

Conclusion

Widely Dalit literature defines itself as a literature of the exploitations and sufferings disgrace, mourning's and deprivation, deride, and scarcity faced by marginalised since a long period of time. Being rejected of these dire conventions and religious standards, these authors are mainly concerned with self-esteem and identity crisis. Recently Dalit literature dominantly known as a distinguished branch of the main stream of Indian literature. Dalit literature has attained a step in which these famous authors have gone beyond their annoyance and bitterness resulted in discovering and encouraging to achieved empowerment. Many of them have dealt with a gender based problems mostly it's been disregarded previously. Especially Dalit female authors are focusing on their socially attached status in patriarchy structure which subsists inside their own communal and outer surface settings. Most of them are coherent in themselves are various formations and their text about repression specially associated with religious connection, social class and gender rather than caste. Dalit texts are now being so famous is translated into English language widely.

Reference

1. Bagul.Baburao. "Dalit Literature Is But Human Literature" Poisoned Bread. Ed. Arjun Dangle.Bombay: Orient Longman, 1992.
2. Clarke. Sathianathan.Dalits and Christianity: Subaltern Religion and Liberation Theology in India. New Delhi: OUP, 1998.
3. Dangle. Arjun. " Dalit Literature: Past, Present and Future". Poisoned Bread. Ed. Arjun Dangle. Bombay: Orient Longman, 1992.
4. Khandekar. Tarachand. "Literature of Revolt and Resurgence". The first All India Dalit Writer's Conference: A Commemorative Volume.Ed. Bojja Thakran. Hyderabad: Dr. B.R.Ambedkar Memorial Trust, 1994.
5. Nayak. Bichitrananda. "Mukti". Anirbana. Cuttack: Cuttack Students' Store, 1993.

21. Gandhi and Women Liberation

Mr. Prashant Vasant Ransure

Assistant Professor, Department of History, Arts, Science and Commerce College Ozar (Mig).

The National Social Conference, founded by Ranade, like the Indian National Congress, remained largely an urban and middle class affair. B. R. Nanda observes, "The middleclass leadership, which dominated Indian politics and society at that time, had not yet learnt the idiom in which to communicate with the masses."¹ This leadership was provided by Mahatma Gandhi who transformed the reform movement into a revolutionary one by highlighting the role of women in this transformation. Nanda also says, „The emergence of Gandhi was to transform the political as well as the social scene“.

To the English educated elite, his views on non-violence, industrialization, education, sex and marriage seemed somewhat odd and old fashioned. But these very views, a quarter of a century after his death have a strangely modern ring."² On the status of women Gandhi's views were not just liberal but radical. Gandhi's image of woman was different from that of any earlier reformer. Leaders and social reform groups thought in a language that made women look helpless. They wanted to protect, uplift and bring relief to women.²

On landing in India in 1915, Gandhi realized that millions of people - men and women - living in more than half a million villages were quite ignorant of the ideology of Swaraj. He emphatically declared, "Our first attempt should be directed towards awakening in the minds of as many women as possible a consciousness of their present condition." Gandhi asserted that „Swaraj“, would be meaningless without reform of the social structure. Gandhi recognized that Indian men had been subjugating women for centuries, using them as drudges in the kitchen and playthings in the bedroom. He knew that men were responsible for the degradation of women, their exclusion from the world beyond the home, and from education. As Madhu Kishwar states: "Gandhi realized that the identification of „manliness" with violence was likely to lead humanity to destruction. Men needed to emulate women's quiet strength and their resistance to injustice without resorting to violence."³

Gandhi considered women as individual human beings with full and equal rights for self-development. A staunch believer in gender equality, Gandhi wrote, "I am uncompromising in the matter of women's rights. In my opinion she should labour under no legal disability not suffered

by man.” He denounced the existing evil customs, which impeded her spiritual growth. He was trying to instill a sense of self-assertion in women by transforming old symbols. He also made use of these traditional symbols to convey contemporary socio-political message.

Madhu Kishwar Writes

Sita, Damayanti and Draupadi were the three ideals of Indian womanhood that Gandhi repeatedly invoked as inspirations for the downtrodden women of India. But the Sita or Draupadi of Gandhi was not the commonly accepted lifeless stereotype of subservience. They were symbols versatile enough to incorporate the qualities that he chose to endow them with.

This vision of women's role and personal dignity had nothing in common with the limited aims of the earlier reformers. Gandhi declared himself “unable to subscribe to the doctrine of the infallibility of ancient law-givers,” By opening the gates to women's political participation, Gandhi facilitated the acceptance of the women's cause by the nationalists. The sudden and massive entry of women into Satyagraha in 1930 opened up for them opportunities which could not be denied again. Participation in public life raised their prestige and status. They gave up their religious and caste prejudices in the process. Gandhi called upon women to take the responsibility not just for changing their own situation but that of the society at large. He urged, “The economic and moral solution of India thus rests mainly with you.”⁴

It is true that at times Gandhi adopted a traditional approach to solve many of the women's problems. But he wanted to take women to a larger struggle, a struggle for the liberation and reconstruction of the nation. He spread the message of charkha and khadi through women. Gandhi stated, “I swear by this form of swadeshi, because through it I can provide work to the semi-starved and semi-employed women of India. My idea is to get these women to spin yam and clothe the people of India with khadi woven out of it.” Due to the colonial impact millions of Indian women lost their means of subsistence. Naturally they responded to Gandhi's appeal. For the middle class women the charka would supplement the income of the family and poor women could earn their livelihood by spinning, and the educated and rich were expected to take to spinning as a duty. Madhu Kishwar writes :

The programmes of action undertaken as part of non-violent Satyagraha were such that women would not feel limited or unequal to men, as they inevitably do when sheer muscle power or capacity for inflicting violence are to determine the outcome of a struggle. When used consciously and collectively this form of non-violence could put them highest weapons to shame.⁵

Gandhi helped the entry of women into public life without making them assume a competitive posture vis-a-vis man. So he kept reminding them, "It is the privilege of Congressmen to give the women of India a lifting hand... It is up to Congressmen to see that they enable the women to realize their full status and play their part as equals of men." Gandhi and his movement had a tremendous uplifting impact on women. They were instilled with self-confidence, initiative and a sense of moral courage and fearlessness. They were convinced about the importance of improving their economic and social life. Towards the end of the second decade of the twentieth century, there were a large number of educated, able, energetic women who were competent to organize themselves and fight their own battles. Women's movement participants were drawn from urban educated families.⁶

Most important of all, Gandhi wanted women to learn the primary right of resistance. He declared, "so long as women in India do not take equal participation with men in the affairs of the world and in religious and political matters we shall not see India's star rising." Women were involved in many aspects of Gandhi's Constructive Programme, like „Shanti Sena“, the Peace Army. Gandhi hoped that ultimately armed conflict would be replaced by women and men who intervene in a wide range of social conflicts. Kamaladevi Chattopadhyaya was the first to join a women's brigade and she became a key organizer in villages throughout India. Gandhi believed that women's unpaid labour in the home needed to be shared equally by men. He wrote a primer for children in which he said that sons must be taught to do homework. He maintained, "To me the domestic slavery of women is a symbol of our barbarism... Domestic work ought not to take the whole of a woman's time."⁷

Gandhi tried to spiritualize the political process. According to Sarojini Naidu women's work was the spiritual reform of the world. Many women of the Indian nationalist era found their spiritual home in Satyagraha. Margaret Cousins wrote of the Satyagraha Movement, "men and women acted as souls not as sexes. Soul force was their weapon and safeguard." Gandhi found equality in each person's spiritual nature. Gandhi and a number of women favoured celibacy as an integral part of their spirituality. Brahmacharya meant mastering one's senses in the service of self-realization.

Some of the ideas advocated by Gandhi, relating to the role of women, were similar to those of the leading feminist movements. The large number of feminist groups like Stri Mukti Sangathana and Shramika Sangathana that emerged in the 1970s and 80s with specific aims and objectives began to search for traditional models for their ideological support. His call to parents not to keep their daughters ignorant and illiterate and bring them up only for the purpose of

marriage and to girls to get education and to remain unmarried and to be economically independent shows his belief in equality of the sexes.⁸

The answer to women's dilemma, Gandhi said, would be found not in imitating the manners of the West but in conserving the best that was in Indian culture and rejecting what was base and degrading. Gandhi urged women to "... refuse to believe in the modern teaching that everything is determined and regulated by the sex impulse." He warned women against copying men's ways. He said, "...if educated women give up copying the ways of men and think independently about the important questions affecting their sex, we shall find it quite easy to solve many difficult problem.'

Gandhi is against modern trend of woman competing with man in every sphere and holds women more suited to domestic work. He accorded equal importance and prestige to all honest roles involving discharge of duties.

He found women embodiments of these qualities and he rated them higher than men for that. Hence he did not want women to forgo that quality but to raise it to a higher level and he advocated the same for men.⁹

Gandhi's assertion on women's capacity for self-sacrifice and suffering is criticized by modern feminists. Feminists like Madhu Kishwar, Tanika Sarkar and Sujata Patel point out that Gandhi had age-old patriarchal bias in his attitude towards women. They conclude that the movement failed to make any change to the institution of patriarchy. Madhu Kishwar is of the opinion that "The capacity for silent suffering, which Gandhi idealized was infact one of the key symptoms of her subordination."¹⁰ Sujata Patel criticizes Gandhi's claim that women were biologically suited to life in the home than working outside it for wages. She holds, "his understanding in these respects was that of an upper caste and middle class male whose ideal woman was cloistered in the home." As Richard Johnson notes, "The image of the new women that he wanted to create was deeply influenced and coloured by the kind of cultural and emotional environment in which he grew up." But Gandhi wanted to preserve what is good and discard what is bad in the ancient heritage. He tried to balance tradition with modernity. If the emerging picture is not one of a revolutionary restructuring of women's position, this is because Gandhi represented the essence of his times, along with its limitations.¹¹

Gandhi firmly believed that realization of one's inner strength was essential to free oneself from subservience to man or any power on earth. Nehru has rightly said "Like an alchemist he transformed the very nature of Indian people and marched them towards the integrated emancipation of women and nation."

Gandhi is one of the few leaders whose practice was far more radical than the words he used for describing it. However Gandhi's impact and influence lies in the fact that he helped women find a new dignity in public life, a new confidence and a consciousness that they could themselves act against oppression.

References

1. Sunthankar, B. R. *Nineteenth century history of Maharashtra*, Volume 2. Shubhada-Saraswat Prakashan, 1993, pp.35-39.
2. Uma Shankar Jha and Premalata Pujari eds., *Indian Women Today: Tradition, Modernity and Challenge*, New Delhi, Kanishka, 1996. p. 21.
3. Rolland,R, *Gandhi*, Srishti Publishers & Distributor, 2002,pp.83-89.
4. Nanda,B.R, (ed.) "*Indian Women: From Purdah to Modernity*", Vikas Publishing House, New Delhi, 1976, p. 5-8.
5. Johnson,R, "*Gandhi And Feminisms: Towards Women Affirming Cultures of Peace*", Gandhi Marg, vol- 22, no. 1,2000, p. 38.
6. Nehru, Jawaharlal, *The Discovery of India*, Calcutta, Signet Press, 1946, p. 426-496
7. Kher.V.B., (ed.) *M. K. Gandhi, Social Service Work and Reform* vol. II, Ahmedabad, Navajivana Publishing House, 1976, p.45-48.
8. Prabhu, R.K., "*India of My Dreams*" – *A compilation of Gandhian writings* Navjivan Publishing House, Ahmedabad. Eighth Reprint, May 2001. pp. 54-57.
9. Mehta, Subhash, *A Handbook of Sarvodaya – Gandhi, Vinoba and Jayaprakash Narayan: The Triumverate of Sarvodaya*" Sarva Seva Sangh Prakashan,Ahamdabad,1996, pp.55
10. Desai, Narayan, *My Gandhi*, Navajivan Publishing House, Ahmedabad, 1999, P.21.
11. Gandhi. M.K., *India of my Dreams*, Navjivan Publishing House, Ahmedabad 1947, P.104.

UNDERSTANDING THE CONTRIBUTION OF SATYA SHODHAAK SAMAJ AND NEO-BUDDHISM FOR SOCIAL AWAKENING

Prashant V. Ransure & Pankajkumar Shankar Premasagar

*Assistant Professor, Department of History, Maratha Vidya Prasarak Samaj's Arts Science and Commerce College Ozar
MIG, Maharashtra, India*

Associate Professor, Department of History, Smt. G. G. Khadse College, Muktainagar, India

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ABSTRACT

Indian Civilization is the conglomeration of various ethnic traditions; Years of amalgamation and change have led Indian civilization to have, diversity of culture religion, language, and caste groups. Indian Civilization is the conglomeration of various ethnic traditions; Years of amalgamation and change have led Indian civilization to have diversity of culture religion, language, and caste groups.¹ The social reform movements, tried for the emancipation of these low caste people, before coming of these social reformers, many of the low caste people had chosen to come out from the caste system is by getting religious conversion, getting converted either to Christianity or to Islam, prior to these social reformers the saints like Kabir, Ravidas, Namdev, like wise and many other fought for the abolition of the caste system and emancipate the low caste from the social bondages.² The other way for the untouchables was to get converted to either Islam or to Christianity, this was to get rid of the bondages of the humiliations of the caste system, but the conversion was not confined to the weaker sections, but in the medieval period too many people got converted to Islam or Christianity either by force or by their will. Jyotiba Phule was though born in Hindu religion in backward caste family, was earlier was not against Hinduism, but some encounter with the Brahminical arrogance shaped the outlook of the Jyotiba Phule towards Hinduism, Jyotiba Phule was insulted by Brahmin for his audacity in joining a Brahmin marriage procession.³ To fight against the Brahmanism, Phule viewed the unity among the Sudras and the Adi-Shudras is necessary Phule, Phule wanted basic changes in the society. Instead of fighting against the caste

KEYWORDS: *Satya Shodhaak Samaj, Neo-Buddhism, Social Awakening*

INTRODUCTION

constitute, and fighting against the overwhelming power of the majority, the lower caste should find their own path outside the Brahminical fold, and form a new society, on the principles of equity and casteless, rationality and justice. Phule identifies that the Brahmanas, were very apprehensive regarding their social status and position, that the reason, they made themselves, Bhudev (God of the Earth) in his book Shetkaryanche Asuda Phule has written about this even Phule was the first to decode the myths, the myth of King Baliraja. By interpreting and decoding the myth, Phule wants to make the people aware, that how the Brahmanas have fooled the people over the years.⁴ The Brahmins did provide justice to the people in everyday matters, but also let them appropriate a position more dignified than that of belongings. Phule's attack on Brahmanism was unbending. Jyotiba Phule understood that the roots of Brahminical supremacy and privileges lies in

the Scriptures like the Smritis, Shastras, Puranas like Brahminical text, and these text works and the caste system were created to exploit the lower castes. Jyotiba Phule also interpreted sacred religious literature and attacked the Brahminical scriptures and Puranas, revolted against priest-craft and the caste system and launched social movement for the liberation of Sudras, Ati-Sudras and women.⁵ Phule realized that the hold of religious tradition and customs on the people derived from the wide-ranging integration of Hindu religious literature into the popular culture and oral traditions. Thus, to bring the awakening in the society, Jyotiba Phule started propagating his views, through various means like speaking in the public meeting, starting the school for the girls and for the untouchables, speaking to the people regarding the importance of education for eradication of the ignorance and unawareness among the people and encouraging the lower castes to educate their children, and to change themselves from following the evil customs, wicked predispositions and crafty precepts imposed on them in the name of God by Brahmin priests.⁶ Jotirao tried to unite his followers and workers, so that they might integrate his rational ideas and bring them into effect. It was his aim to show the government how the peasants and other laboring sections of society were being exploited by the upper castes. Jyotiba Phule knew very well knew that the upper castes, especially the Brahmins, would not easily give up their supremacy. There was no question of their expecting that the Brahmanas will have any mercy or willingness to give Social, economic and political rights to the peasants and toiling masses, as these masses had no strength and organization behind them. Soon, he decided to set up an organization to propagate his ideology which he named as 'Satya Shodhak Samaj' for that reason, Jyotiba Phule arranged a meeting on 24 September 1873 for all his followers at Poona. In this meeting Phule made the people understand the need of the central institution, which will provide path for the movement. After few meetings and gatherings with the people, finally it was decided to awaken and enlighten the masses, and to free them, from the clutches of the Brahmanism, a new society to be formed named as the Satya Shodhak Samaj (Truth Seeking Society). The main objective of the Samaj emancipated the Sudras, Women and Ati-Sudras.⁷

The Chief Principles of Satya Sodhak Samaj Were Stated as Follows:

- All men are the children of God, who is thus their parent.
- As there is, no necessity of an intermediary to approach one's mother or to please one's father, there is no need of an intermediary such as a priest or a preceptor to enable the devotee to offer prayers to God. (Anyone accepting these principles qualified to be member of the Satya Sodhak Samaj.
- To spread truth and right thinking among people, make them aware about their rights and social problems.
- To overcome ignorance and became aware and give importance to education
- To make diligent effort to spread education among women and children, and to educate the farmers and train them to make use of Science and new technology in farming, and Agricultural implementation.
- To save Sudras and Ati-Sudras from long and sustained slavery.
- To make the Sudras and Ati-Sudras aware of their rights.
- To enable them to come out of influence of the Hindu texts.
- To promote unity and brotherhood among Sudras and Ati-Sudras.
- To fight against domination, exploitation and inequality in society.⁸

- To make an ideal society which will have faith in one god, also there should be no intermediary between man and god, and no distinction to be made on the basis of birth, every man to be judged by his qualities and not by caste.
- Phule in his Satya Shodhak Samaj, invited people from all the caste, class and gender, there was no discrimination on basis of caste, people of various castes were members of the satya Shodhak Samaj like Mahar, Mang, Kunbi Maratha, Maratha, Brahmin, even Jews and Muslims were part of this Samaj. The Samaj emphasized on education for the people, dislodging Brahmin priests from the position they held in the religious field, and freeing people from the belief in astrology and idol worship.
- Phule tried to bring all labouring classes under an umbrella organization to wage a morality-driven and knowledge-based struggle against falsehood. While rejecting the notions of high and low, pure and polluted, inhuman, aggressive and oppressive nature of Brahmanism, 'Phule preached his idea of universal brotherhood.¹⁰
- By spreading education Phule want to lead society towards Cultural Revolution. One aspect of his rationalism can be seen in the Satya Sodhak Samaj with its primary emphasis on truth seeking. It is most significant in this context as truth seeking was seen as a quest guided by the individual's own reason, not by the dictates of any religious guru authoritative text.
- Socio-religious contributor, Phule established the Samaj with the aim of securing social justice for the weaker sections of the society. He set up a number of schools and orphanages for the children and women belonging to all castes.¹¹
- Phule collected money for the establishment of schools for Mahar and Mang children.
- He called for applications from students for scholarships and granted scholarships to ten students which was greatly appreciated and applauded by the non-brahmins.
- The Samaj made serious efforts to admit a few non-brahmin poor students in engineering college in free seats. The Samaj set up the first schools for girls and untouchables.¹²
- Phule collected money from contractors and surgeons and they promised to stop spending money on feasts to Brahmins and donated the money to the Samaj for the promotion of education. Phule next turned his attention to the religious aspect of the mission of his Samaj. He decided to solemnize marriage ceremonies according to rules and resolutions of the Samaj. The main features of the marriage ceremony are that the bride and the bridegroom declare their allegiance and take vows composed according to the Samaj. The guests bless the couple. The Hindu marriage ceremony was performed without a Brahmin priest. Regarding the marriage of widows and child marriages, Phule questioned and criticized so- called social reformers like M.G. Ranade, Lokhitavadi Gopalrao Desmukh.¹³
- Manu treats women as Sudras or Dasas irrespective of their caste and varna. Phule was convinced that the family system must be reformed altogether. Phule opened orphanages for children and maternity homes for women.¹⁴
- According to Phule, the performance of any religious ceremony by a Brahmin priest for a member of another caste, expresses in a concrete form the relations of purity between them which makeup the basis for Hindi religious hierarchy. It is the Brahmin priest alone who in his ritual purity has the power to mediate between the human world and that of the high gods, and so it is he who controls the entre of Divine power in the world. For

this reason, Phule felt that the employment of Brahmin priests negated the very principle upon which he hoped a community of the lower castes would be based. Samaj actively encouraged marriages without Brahmin priests. Thus, the Samaj assumed a vital role as the ideological conscience of those who identified themselves with the lower castes,

- Whether they belonged to the Samaj or to one of the numerous other groups working for the uplift of the lower castes. The Samaj supported the Arya Samaj in its social activities.¹⁵
- Economic Contribution Under the leadership of Narayana Meghaji and Lokande, the Indian labour movement valiantly fought for the amelioration of the lot of the millhands. The Indian labour movement in its early stage was to some extent an offshoot of the Samaj. The Samaj voiced the grievances of both the peasants and the mill hands. The whole movement laid a certain emphasis on economic betterment and social justice and also aimed to stop exploitation through religious rituals and social customs. Din Bandhu Sarvajanik Sabha was established in May 1884 by Krishnarao Bhalekar with the help of Jotirao. They met every Sunday to discuss social problems, and non-brahmin leaders addressed the meeting at Dr. Sadoba Gavadi's residence.
- The Samaj also collected money and sent it to Ahmadabad flood victims.
- Literacy Contribution Phule wrote many books on social problems on behalf of the Satya Shodhak Samaj. The Samaj organized essay-writing and elocution competitions on social problems and distributed prizes to promote awareness on these issues among the weaker sections.
- The Samaj worked for the spread of education with the help of journals like Satya Dipika, Subodha Patrika and Dyana Prakash.
- While reviewing the work undertaken by the Samaj, Vividhadnyan Vistar praised its role and its activities in different fields.
- Jotirao wrote many articles in the Din Bandhu on a variety of subjects, and then his lieutenants propagated those subjects in their villages and towns.
- Deenbandhu the mouthpiece of Satya Shodhak Samaj played an important role in Satya Shodhak Samaj movements.¹⁶

Dr. B.R. Ambedkar's views on Hindu Religion and Neo-Buddhism is well known. Dr. B.R. Ambedkar born in lowest strata of Indian society and had faced social ostracism and degrading treatment very early in his life made him conscious of the inequality imposed on weaker sections by upper caste Hindus in the name of religion.

- Dr. B.R. Ambedkar asserted that discrimination was a byproduct of the caste system; hence the system had to be done away with. He noted with pain that inequality and hatred were the main doctrines of Brahmanism and the suppression of lower sections was carried out without remorse by the Brahmins, as then bounden duty. In every sphere, it was the Brahmins who enjoyed privileges like education, acquiring property and holding high posts in government services while the poor, downtrodden and the most oppressed classes of the so-called untouchables were denied every basic facility and accepted it as their inescapable fate. Dr Ambedkar that a religion which discriminates between its followers, is and treats millions of adherents worse than dogs and criminals, and inflicts

upon them insufferable disabilities, is no religion at all. Religion is not the appellation for such an unjust order.

- The most frequently quoted line from Ambedkar is 'in his [Buddha's] opinion, nothing was infallible and nothing could be final. Everything must be open to re-examination and re-consideration whenever grounds for re-examination and re-consideration arise and believe only in those doctrines which you have scrutinized and of which you are totally convinced.
- According to Dr. B.R. Ambedkar, man cannot live by read alone. He wants self-respect which is denied under Hinduism. Untouchables have discovered that conversion helps them as they will no longer be subjected to atrocities. Conversion to other religions enables the untouchables to gain dignity and self-respect
- While addressing a mass crowd at the All-Bombay District Mahar Conference in May 30-31, 1956 headed by B.S. Venkatrao, Dr. B.R. Ambedkar questioned his people about their religious life, and put forth his understanding of caste and conversion.
- Dr. B.R. Ambedkar prescribed 22 vows to his followers during the historic religious conversion to Buddhism on 15 October 1956 at Deeksha Bhoomi, Nagpur.
- These vows could liberate converts from superstitions, wasteful and meaningless rituals, which had led to pauperization of masses and enrichment of upper castes of Hindus. Many Dalits employ the term "Ambedkarite Buddhism" to design the Buddhist movement, which started with Dr. Babasaheb Ambedkar's conversion and many converted people called themselves as 'Nava- Bauddha' i.e., New Buddhists.
- Socio-Religious contribution it may be relevant to consider as to what has been the impact of Buddhism on its new adherents, the people who responded to the clarion call given by Dr. B.R. Ambedkar when he embraced Buddhism. They have got rid of their inferiority complex. They have a fresh sense of identity and a newly acquired confidence. What is more, the youth them have shed the old superstitions that had crammed their existence and have adopted a more rational view of life; and there is a new cultural and social renaissance which has transformed Buddhist youth. They no longer believe in pre-ordained fate or in any of the ancient rituals. They believe that only hard work, education and a rational approach can bring progress. Compared to high caste Hindu youth, their attitude seems to be firm, progressive and scientific.
- They follow different (different from Hinduism) rituals at the events of birth, marriage and death, have different prayers and Viharas, rather than Temples. That this difference, for them, is an indication of them not being Hindus. They assert that as Buddhist they have arrived at a separate identity. For in Hinduism they had no identity; now as Buddhists they look upon themselves with self-respect feel confident and capable of self-enhancement. They feel that conversion to Buddhism means the total rejection of Hinduism and the caste system.
- Economic contribution - As far as the economic status is concerned; there is a change among the newly educated Buddhists. By and large, they have remained economically at the same level at which they were before conversion. But the radical transition from blind faith to rationalism has given rise to tremendous hunger for education and knowledge among the Buddhist youth. This holds the key to their economic progress and has resulted in some betterment.¹⁷

- Political contribution - The Republic Party of India (RPI) was founded by Dr. B.R. Ambedkar in 1955, on the principles of liberty, equality, and fraternity. Dr. B.R. Ambedkar aimed to unify different untouchable communities in a politically powerful group. This aim was never accomplished. With the help of the All India Backward and Minority Committee's Employees Federation (BAMCEF) Kanshi Ram hoped together and unite the scheduled castes and tribes and other backward classes and the religious minorities.¹⁸ The BAMCERF is voice heard and to make the indigenous people revolt against the 'Aryan' invaders to fight Brahmanism, and defend the explained masses. Hindus nationalists from the RSS and the BJP are the targets of much criticism and all arguments revolve around the terror of the upper castes. The Dalit movement was launched in April 1972 at Bombay with a manifesto to combat the growing atrocities against the scheduled castes in the rural areas. The most fundamental factor responsible for the rise of the Dalit Panther movement was the repression and terror under which the oppressed scheduled castes continued to live in the rural areas. It has become the hallmark of the Bahujan leadership in Indian polity also as it has established itself as a national political party. A major section of the Bahujan leadership led by the BSP has propounded a new identity for the weaker sections and that is the Bahujan which of course is inclusive of the lower strata of the OBCs, and the Muslims which no doubt are poor and laboring masses. It has repeatedly avowed that caste, as a form of descent-based discrimination, falls within the definition of racial Discrimination under Article-15(1), of the international convention on the elimination of all forms of racial discrimination. The Literary Contribution Most of the Dalit writers belong to the neo-Buddhist community. Young writers like Daya Pawar, Shankar Rao Kharat, Keshav Meshram, Yeshwanth Manohar, Hira Bansode, Kumud Pawde and Namdeo Dhasal protested against oppression by the superior castes in their writings. In all their writings, in varying degrees of explicitness, there runs sentiment of revolt against the forces of oppression, and assertion of the right to a decent and dignified life. Various magazines and journals are being published by Neo-Buddhists like Dhammamegha, Buddhayana Yuga, Udbodhana, The Bahujan Voice, and Mulnivasi Times'.¹⁹

Both the social reformers, new that the religion is the essence of every being, and if that religion, is stagnant, suppressive, Non-Humanistic and immersed in evil practices will not liberate the individual and at large the society, the religion is to be based on rationality thus both the Sarvajanic Satya Dharma as well as the Neo- Buddhism (Nav-Baudhayana) believed in rationality, and discarded the evil and traditional religion, this was in order to make a awakened society.

REFERENCES

1. Michaelm, S.M., 'Dalit vision of a just society in India', in S.M. Michael (ed.), in *Modern India: Visions and Values*, Sage Publications, New Delhi, 1999, pp.75.
2. Nagaraju Vadapalli, Kontham Narsaiah, 'Dr. B.R. Ambedkar's Religious Philosophy and Navayana Buddhism', *Kakatiya University Journal of Social Sciences*, Vol.6, No.1&2, 2010, pp. 184.
3. Rajni Bala, Navjoti, 'Mahatma Jyoti Rao Phule: A Forgotten Liberator', *International Journal of Basic and Advanced Research*, 2012; 1(2), pp. 34.
4. Rajkumar, V., *Medieval History of Shudras: I200- 1707, Part-II*, Kanishka Publishers, New Delhi, 2010, pp.508-515.

5. Jagannatham Begari, 'Jotirao Phule: A Revolutionary Social Reformer', the Indian Journal of Political Science, VOI. LXXI, No.2, April-June 2010, p.408.
6. Jotirao, Phule, *Selections: Collected Works of Mahatma Jotirao Phule Vol II*. Mumbai: Government of Maharashtra, 1991, pp. xv.
7. Phule, Jotirao (1991). *Selections: Collected Works of Mahatma Jotirao Phule Vol II*. Mumbai: Government of Maharashtra. pp. xvi.
8. O'Hanlon, Rosalind, *Caste, Conflict and Ideology: Mahatma Jotirao Phule and Low Caste Protest in Nineteenth-Century Western India (Revised ed.)*. Cambridge University Press. 2002, pp. 118.
9. Omvedt, Gail. *Understanding Caste: From Buddha to Ambedkar and Beyond*. Orient Blackswan, 2011, pp. 62.
10. Keer, Dhananjay, *Mahatma Jotirao Phule: Father of the Indian Social Revolution*, Mumbai, India: Popular Prakashan, 1974, pp.44-49.
11. O'Hanlon, Rosalind, "Issues of Widowhood in Colonial Western India", in Haynes, Douglas E.; Prakash, Gyan, *Contesting Power: Resistance and Everyday Social Relations in South Asia*, University of California Press, 1992, pp.19-20.
12. Rajni Bala & Navjoti (2012) "Mahatma Jyoti Rao Phule: A Forgotten Liberator" in *International Journal of Basic And Advanced Research*, 2012, pp.35.
13. Schmidt-Leukel, P. (2006). *Understanding Buddhism*. Dunedin Academic Press Ltd.
14. Blundell, D., & Dahiwal, M. (2015). *Engaged Buddhism: Social Transformation in India and Taiwan*, Asian Leadership in Policy and Governance (Public Policy and Governance, Volume 24).
15. Sirswal, Desh Raj, *Mahatma Jyotiba Phule: A Modern Indian Philosopher*, <https://documents.in/reader/full/mahatma-jyotiba-phule-a-modern-indian-phule-a-modern-indianmahatma-jyotiba,pp.1-12,09/06/2020.Ibid>.
16. Jyotirao Phule quoted in Sharanabasappa B. Ragi, Jyoti. S. Bamman, "Mahatma Phule and Women's Emancipation" *International Referred Research Journal*, June, 2011, pp.113.
17. Sharanabasappa. B. Ragi, Jyoti. S. Bamman, "Mahatma Phule and Women's Emancipation" *International Referred Research Journal*, June, 2011, pp.114. Also see Jyotirao Phule, 1883, "Shetkaryaca Asud" translated by Gail Omvedt and Bharat Patankar <http://www.ambedkar.org/gail/Phule.pdf>, 09/06/2020.
18. Rodrigues, V., *The Essential Writings of B. R. Ambedkar*. New Delhi: Oxford University Press. 2002.
19. <http://epratrust.com/articles/upload/34.Prof.Nirmal%20Raj.pdf>.
20. <http://www.mulnivasibahujanbharat.org>.

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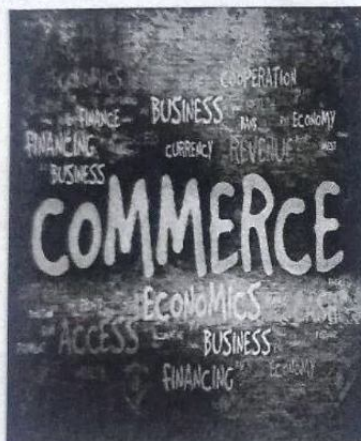
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Women's Participation In Freedom Movement Of India

Mr. Prashant Vasant Ransure

Assistant Professor in History ,MVP Samaj's Art's Commerce and Science College, Tryambakeshwar

Soon after India got independence, the intellectuals construed India's freedom struggle from different points of view. In the colonial India some scholar-leaders like Lala Lajpat Rai, Bal Gangadhar Tilak, A.C. Majumdar, Patabhi Sitaramaya I. Surender Nath Banarjee, C.F. Andrews, etc. had come with their writings and later on supplemented by others such as B.R. Nanda, Bisheshwar Prasad, Amlesh Tripathi, Tara Chand, Nilkhanth Shastri, R. C. Majumdar etc. Their works throw light on the nationalist historiography of freedom struggle of India. As propounder of the nationalist approach,¹ these scholars and leaders came out with an effective conception that the modern historical struggle in India developed as a unified and collective opposition based on national feelings as a whole against the British colonial rule.

The nationalist historiography was developed by the English educated class which was the product of new educational institutions emerged during the second half of 19th century. The educated middle class played an important role in the creations of several organisations which instilled the national sentiments in India. The nationalist school, however, has been criticised with an argument that it uncritically emphasised the glories of the past. Besides, it also overlooked the role of various social groups in the freedom movement.² Moreover the unavoidable aspect of women's participation in the movement has also been left without addressed. Both of the schools viz. the Cambridge and nationalist share similar view points at least on two aspects. One that the Indian elite led the people in the struggle and the second one is that the aspect of women's participation in this long lasting struggle is almost missing in both of the historiography.³ It seems that their interest rested somewhere else otherwise such a vast account of women organisations which were involved in nationalist politics from the middle of 19th century and sufficiently addressed women issues would have certainly been examined in their discourse in regard to women's contribution. Further, there were many instances that shed adequate light on the participation of women in the national movement by various types of their activities,⁴ be it their passive role as mothers, sister and wives or active participation through Gandhian Constructive Programme or overt revolutionary activities against colonial rule.

The present work aims at understanding the contribution of all sections of women towards the freedom struggle of India in accordance with the nationalist approach.

Women in Pre-Gandhian Movement:-

From the beginning of Indian National congress, its membership was open to women. Allan Octavian Hume even went ahead asking all shades of opinion never to forget that unless the elevation of the female element of the nation proceeded (with an equal place) with their work, all their Labour for the political empowerment of the country would prove futile. For the first time, ten women who attended the fourth session of the Congress at Bombay in 1889 A.D. were also from Bombay and Calcutta. Among them, the prominent women were Swarna Kumari Devi, sister of Rabinder Nath Tagore, and Pandita Ramabai, an Arya Samajist of Poona.⁶ The former being an progressive woman had already started *Sakhi Samiti* in 1886 A.D. to foster among Indian women an active and enlightened interest in the welfare of the country whereas the latter one had the honor of being the first woman to speak from the congress platform where she also proposed a vote of thanks to the President, Pheroze Shah Mahta.

Sarla Devi Chaudhurani, daughter of Swarna Kumari, who was to take an active participation in the nationalist movement in the years to compose a song urging the people to different provinces of the country to join the freedom struggle. The proceedings of the 1902 A.D. session of the Congress at



Ahmedabad commenced with the singing of the National Anthem by Lady Vidyagauri Nilkanth and her sister Sharda Mehta. The decision for the partition of Bengal was announced by the government on 20 July, 1905 A.D. first time spurred the common people including women into political action. It was important to note that about 500 women held a meeting at Jani Khandi village, district of Mursidabad, to protest against the partition. In September 1905 A.D. when Rabinder Nath Tagore announced his plan for observing Rakhi Bandhan on the "partition day" i.e. 16 October, women actively took part in sufficient number. Similarly, women also observed "non-cooking day" as suggested by Romendra Sunder Trivedi who asked them to be part of political movement without overlooking household. Thereafter, the notion of boycotting of British goods in general and foreign cloths made in Manchester and other British centers in particular as propounded by a revolutionary Shyamji Krishna Verma who also published the same idea in his own Journal *Indian Sociologist* in October 1905 A.D. Not only this, he even laid importance that economic refuse as a fake weapon of a weak and unarmed nation against a powerful armed foreign government, the natives would commit no evils. The movement, in the way, started with boycott of foreign and was soon widened to with boycott of person using British goods. As a consequent, Swaraj, Swadeshi and National Education became the slogans of the nationalists. Sister Nivedita who was also a great source of inspiration to many youngmen and women visited the court in 1907 A.D. to stand surety for release at Bhupendra Nath Dutt, youngest brother of Swami Vivekanand, who was arrested for sedition as editor of *Yugantar*.⁷

The Punjabi women did not lag behind in making their contribution during the national movement. Smt. Sushila Devi of Sialkot was the first lady who delivered a series of lectures in which she criticized the governmental policies. Smt. Purani, a prominent Arya Samajist of Hissar, toured various districts of Punjab for the advocacy of the cause of *Swadeshi*. Another woman Har Devi (wife of Roshan Lai, Barrister of Lahore) was a social worker and editor of a Hindi magazine. *The Bharat Bhagini* also joined the rank of the political workers. She not only took the accountability of arranging meetings for revolutionaries but also of fund collection for their multiple activities. The involvement of women in *Swadeshi* movement was also affirmed by Mrs. Ramsay Macdonald who visited India at that time. The women entered into agitational politics only after the First World War. This was made possible only by a new woman's organisations and the recruitment of women to existing political organisation. The entry of Mrs. Annie Besant to Indian politics in 1914 A.D., her elevation to President-Ship of Congress and *Women's India Association* enhanced the process of bringing women into national politics.⁸ Her activities were seen as threat to the government and she was asked to leave the country.

Sarojini Naidu, being the first Indian woman to make politics her full time accupation, was in fact, drawn into the vortex of politics by Gopal Krishan Gokhle whom she considered her *Guru*. It was on his encouragement that she had joined congress. On December 1951 A.D. she attended congress session at Bombay as a United Provinces delegate whereat she supported a resolution of self-government. Further, as a member of Home Rule League she led a deputation of women to England consisting of Annie Besant, Mrs. Herabai Ardesher Tata and Miss Mthan Ardesher Tata, Edwin Montagu as members.⁹ They presented a memorandum to the British Government, asking for voting for women rights.

Women in Gandhian Movement:-

Gandhi's arrival in India was a turning point in India's struggle for freedom. After a conditional support given to Muslims in *Khilafat* movement, he brought them to Congress, as an instrumental, for Hindu-Muslim unity. The *Satyagrah* movement for first time was launched by him on 6th April 1919 A.D. The passing of the oppressive Rowlatt Bills by the British Government which aimed at prohibiting public protest and suspending civil liberties were, in fact, responsible for the launching of Non-Cooperation Movement. The movement was based on six points namely: i) boycott



of law court by lawyers and to set up popular tribunals for administering justice; (ii) boycott of school and college owned or aided by the government, and the establishment, of national educational institutions; (iii) boycott of elections; (iv) surrender of honours and titles (v) Boycott of British goods and encouragement of *Swadeshi*; and (vi) a temperance campaign to wean addicts from liquor. He invited the women to join Non- Cooperation Movement. Addressing public meetings in different parts of the country, he also appealed to women to donate their jewellery for the collection of Tilak Swaraj Fund. In his speeches he compared the British rule to *Ravana-rajya* and said that as *Sitadid* not cooperate with *Ravana*, so the Indian people must not cooperate with the *Rakshasi-Sarkar*.¹⁰

The year 1930 A.D. witnessed the altogether changed perspective of women in two ways in the history of freedom struggle of India. Firstly, they marked their successful and decisive leadership along with the changing concept of "Women uplift" to "equal right" with that of men and secondly they joined the movement in a massive participation. The launching of civil disobedience movement under the ideology and leadership of Gandhiji was to be primarily carried out without participation of women in it. The women of the country in general and within Congress took it embarrassing. It happened so as they had already reached to such a level of awakening in regard to the right of equality through the continuous efforts made by some prominent and dynamic women leaders,¹¹ in the foregoing decade, like Annie Besant, Sarojini Naidu, Kamla Devi Chattopadhyaya, Basanti Devi, Urmila Devi, Rameshwari Nehru, Hemprabha Majumdar and Bee Amman, etc.

It is significant to note that at the beginning of Civil Disobedience Movement, Gandhi did not allow women to join it. He was of the opinion that the participation of women might be considered weakness. But the women who were already charged with the new concept of equal rights arose to the resentment. Margaret Cousins even addressed through a letter of their protest to Gandhi. In these stirring critical days of India's destiny, there should be no watertight compartments of service. Further, women even went ahead while demanding that "no conference, no Congress or commission dealing with the welfare of India should be held without the presence on them of their kind. While leaving Sabarmati on March 12, 1930 A.D., he did not include any woman in the group of marchers of the satyagrah as already determined. The women at his Ashram were disappointed as he took only four or five with him as he had replied there would be time enough for that. Khurshed Behn, granddaughter of Dadabhai Naoroji, wrote an angry letter to Gandhi asking him why he was not allowing women to join the Dandi March. Mridula Sarabhai, and then a student of Gujarat Vidyapeeth, even ignoring the instruction of Gandhi jumped into the struggle, despite Principal Kaka Kalelkar's order not to do so. Consequently, both these young women were arrested at Ahmedabad. After the arrest of Gandhiji and Abbas Tyabji in Salt Satyagraha, Sarojini Naidu assumed the leadership at Dharsana, the scene for the mass breaking of the salt laws.¹²

On returning to India after attending Round Table Conference in London Gandhi was again arrested on 4 January, 1932 A.D. He was confined in Poona Jail, while setting aside Gandhi-Irwin Pact by Lord Willingdon who had joined as successor of Lord Irwin. The reception committee of Congress was also declared unlawful by the government. Sarojini Naidu, a true Gandhian, again shouldered the responsibility to respond against the attitude of British Government. In fact, it demanded her duty to perform on becoming as acting President of Congress in the same year. She not only made a call to hold the session of the Congress in order to start the movement again, but she was arrested on 20th October 1932 A.D. and later,¹³ she was sentenced to one year's imprisonment for her activities against the British government.

Kamla Devi continued to prepare students and youth by addressing their meetings and conferences. She, being Vice Chairman of the Bombay Youth League, presided over the students' conference at Lahore in October 1931 A.D. While speaking on such occasion, she condemned the education system. She said, "It is a frame that ill fits us for it is cast in a sinister mould in slow deliberate manner." Besides salt *satyagraha*, the other programme, were also taken up by activist



women followers of Gandhiji. The credit of picketing in Bombay broadly goes to the *Des Sevika Sangh* which was formed by Hansa Mehta and others. Their picketing was so effective that the government had to declare it illegal. The acknowledgment to some other equally important women freedom fighter whose contribution in no way was less important also needs to be made in this regard. Out of them were Jaishri Rajji, Hansa Mehta, Perin Captain, Sofia Somjee, Lilavati Munshi, Manibhen Patel and Khurshedbhen who prominently participated in Civil Disobedience Movement.¹⁴

Aruna Asaf Ali also informs about the activities of *Des Sevika Sangh* of Bombay which was quite decisive not only in creating favorable opinion among the masses but also picketing in different ways. Two women organisations viz. 'All India Women Conference the local branch and the *Hindustan Seva Dal* were quite active in Madras region during the civil disobedience movement. Besides, the *Vanar Sena*, which was originally started in Bombay by Shri Johri from among Youth League Leaders, also did not lag behind in multi-playing its rank and file in the same context. Durgabai Desmukh was another eminent woman the southern regions where she accelerated her activities during the Salt *Satyagraha* as she was already active in politics since 1921 A.D. when she was merely a child. Campaign for salt *satyagraha* in Bengal was mainly led by Latika Ghosal under the banner of *Mahila Rashtrya Sangh* founded by herself with the help of Subhash Chandra Bose.¹⁵

The most important issue of women was their suffrage taken up by Women's Indian Association (WIA) founded in Madras in 1917 A.D. by three theosophist women namely Annie Besant, Dorothy Jinarajadasa and Margaret Cousins. Besides opening of new branches in other cities, their Theosophical Society took a lead in forming the new associations for the well-being of their lot. The establishment of the All India women's Conference in 1927 A.D. as non-political organisation showed at most interest in promoting educational opportunities,¹⁶ for women and improving their position through the social and legal reforms. They first of all were interested in the question of women's right to vote and were largely responsible for organizing the Suffragette movement.

Furthermore, the hardship faced by the women participants during their underground activities and the degree of silent sacrifice of those who faced extremely inhuman treatment, rape and, even loosing of their children left no iota of doubt that making a sacrifice for national cause was no monopoly of the men. So their participation on the equal footing is, undoubtedly, praiseworthy in all the movements started under the official leadership of the Indian National Congress.

References:-

1. Sanjeev, Kumar., *Nationalism in India*, Deep & Deep Publications, New Delhi, 2011.
2. Sitaramaya, Patabhi., *The History of Indian National Congress*, Facsimile Publisher, Delhi, Vol-I, 1946.
3. Banerjee, Surender Nath., *A Nation in Making*, Rupa Publications New Delhi India, 2016.
4. Nanda, B.R., *Mahatma Gandhi - A biography*, Beacon Press, London, 1958.
5. Guha, Ramachandra., *Gandhi before India*, Penguin Pub. Pune, 2019.
6. Tripathi, Amlesh, *The Extremist Challenge*, Bombay, Orient Longmans, 1967.
7. Tarachand, *History of the Freedom Movement of India*, 4-Vols, Publications Division, Government of India, New Delhi, 1972.
8. Majumdar R.C., *History of Freedom Movement of India*, 3 -Vol, Publications Division, Ministry of Information and Broadcasting, Govt. of India, 1963.
9. Sarkar, Sumit, "Popular Movements" and "Middle Class" Leadership in Late Colonial India: Perspectives and Problems of a "History from Below," Calcutta: Centre for Studies in Social Sciences, Delhi: Aakar Books, 2015.
10. Kasturi, Leela and Vina Majumdar (eds), *Women and Indian Nationalism*, New Delhi :Vikas Pub. House, 1994.
11. Chandra, Bipan, *Bharat Ka Swatantrata Sangram*, Tricks KaKhajana Pub. New Delhi, 2015.



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12. Broomfield, J.H., *Elite Conflict in a Plural Society: Twentieth Century*, Bengal, University of California Press, 1968.
13. Seal, Anil., *The Emergence of Indian Nationalism: Competition and Collaboration in the Later Nineteenth Century*, Cambridge U.P., 1968.
14. Bayly, C.A., *The New Cambridge History of India*, Vol. II. Cambridge University Press 1975.
15. Tamilson, B.R., *Imperialism, Nationalism and Politics: The Indian National Congress, 1934-42* (Ph.D.) Thesis, Cambridge University, 1976.
16. Washbrook, David., *The Emergence of Provincial Politics: Madras Presidency 1870-1920*, Cambridge University Press, 1976.

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Editor

Asst. Prof. Baliram Pawar
Head, Department of Sociology
Mahatma Phule Mahavidyalaya
Kingson Latur Maharashtra

Editor

Dr. Anerao Madhav Marotrao
Head, Department Of Sociology
Lokmanya Mahavidyalaya, Sonkhe
Tq. Loha Dist. Nanded.



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Role Of Women Novelists In Indian English Literature : A Brief Survey

Dr. S. J. Ghotekar

MVP Samaj's Arts, Sci. And Commerce College, Ozar (Mig)

Tal. Niphad, Dist. Nashik (M.S.)

Mobile : 9890485410 Email ID : ghotekar.sj@gmail.com

Abstract:

This paper attempts to explore the study of **Role of Women Novelists in Indian English Literature**. Indian literature is called "Indo-Anglian" literature which comprises the work of Indian writers in English. There were the pioneers in the field of Indian Writing in English. Indian Women writing in English is being recognized as major contemporary current issues in English literature. This article highlights role and some of the works produced by women in India over the ages. The majority of novels written by Indian Women writers reveal the psychological sufferings of the frustrated homemakers. The last three decades have seen the emergence of prominent feminist in Indian Literature. Toru Dutt, Anita Desai, Arundhati Roy, Manju Kapur, Shashi Deshpande, Ashapurna Devi, Kamala Markandya, Kiran Desai, Nayantara Sahgal are some other women novelists writers to be remembered in this connection.

Introduction :

English is a foreign language. A foreign language, like a foreign plant, can grow with great difficulty on the native soil. Our mother-tongue is like our mother; a foreign language is like a mother-in-law, a task master. The study of English is both a need and an advantage. This English language is one of the richest languages in the world, in respect of literature and culture. English literature includes some of the finest utterances of life and conduct. The English language has given expression to great social ideas and great political ideas.

The year 1830 stands as a landmark in the history of Indian literature and language. It was the year of the announcement of Lord Macaulay's **Minute** on the story of English language and literature by Indians. The earliest writings of Indians in English were in prose. Raja Rammohan Roy, who did much pioneering work in Bengali prose. He was also a master of effective English prose. The first work in English was written by Kashiprasad Ghose. The book was called **The Minstrel**. Among those Indians who have made substantial contribution to English poetry the names of Toru Dutt and Sarojini Naidu.

The Term 'Indo-Anglian' Literature :

Indian literature is called "Indo-Anglian" literature which comprises the work of Indian writers in English. English is used here either as the literary lingua franca of Indian or as a world language. The term "Indio-Anglian" is used to denote original literary creation in the English language by Indians. Today there are a large number of educated Indians who use the English language as a medium of the creative exploration and expression of their experience of life. Their writing has now developed into a substantial body of literature in its own right and it's this literature which is referred to as "Indo-Anglian" literature.

Early Writers in Indian English Literature :-

The novel, the short story and the drama were practically non-existent in the Indian languages, before the middle of the century. With the introduction of English in India, there was a spurt of translations and a number of English classics were soon translated into the many Indian languages. The Indian writers were inspired by these translations. **Bankim Chandra Chatterjee** became the first Indian writer of a novel in English. He published his 'Rajmohan's Wife' in 1864.



Tora Dutt's novel called 'Bianca' or 'The Young Spanish Maiden' which was published after her death in the columns of the 'Bengal Magazine'. The first Indian play in English 'The Persecuted' was written in 1832.

The reality, peculiar to the portrayal of humans, of animals and of the almost hypnotic local actually holds a truth. Ancient Hindu scriptures, such as the **Purana**, the **Upanishad**, the **Ramayana** and the **Mahabharata** are such sketches. The impact of the Western culture and presence of the social condition gave life to Anglo-Indian Writing. It has a "mystical structure" – strategy to blend the factual and the fabulous, sustaining at the same time reality consistently.

Indo-Anglian Writing : It's Four Stages

There were the pioneers in the fields of Indian writing in English. Their works were largely imitative of British models. This is early stage (from 1830-1880), **The Phase of Imitation**. There were early writers who had mastery over English language. They sowed the seed which was to grow, flourish and bear fruits in years to come. The second stage is that of **Indianisation**. It was started with the works of Toru Dutt in the last Quarter of the 19th century. The third stage began with the opening of the new century. It is phase of **Increasing Indianisation**. The Indians writing in English acquire a national consciousness and write to interpret the mind and heart of India to the West. Fourthly, **individual talent and experimentation mark the works of writers in post-independent India**. At these Indian workers have obtained confidence and strike out along new lines on their own. This becomes clear, if we trace shortly the development of Indo-Anglian fiction.

Role of Indian Women Novelists in Indian English Literature :

Indian Women writing in English is being recognized as major contemporary current in English Literature. The likes of Kiran Desai, Arundhati Roy, Anita Desai have won worldwide acclaim for the quality of their writing. These include the role of English as global lingua franca : the status and position of English in India. The Indian writers have been writing, not in their native language but in a foreign language as well as the resultant transcultural character of their texts. Much of the world's literature has been dominated by women's writing more than two centuries ago.

This research article is an attempt to highlight role and some of the works produced by women in India over the ages. The emergence of the first structure of poetry by women in India could be attributed to the advent of Buddhism. Buddhism offered women to express their thoughts and ideas for the first time. There was the rise of Indian women's literature in the early 6th century BC.

During the 12th century AD there was the medieval Kannada poet, rebel and mystic, Akkamahadevi. Her life and writing challenged the patriarchal dominance of the world at large. She is supposed to have wandered naked in search of divinity. She conveyed her understanding of the Bhakti tradition and the Hindu idea of rebirth.

The work of Indian Women Writers has been under valued due to patriarchal assumptions. It was about the superior worth of male experience. The majority of novels written by Indian women writers show the psychological sufferings of the frustrated homemakers. They have shown their worth in the field of literature. The last three decade has seen the emergence of prominent feminist in Indian Literature.

• **Toru Dutt's Writings :** She is known by her book, 'The Ancient Ballads and Legends of Hindustan.' It contains her few smaller pieces. She was a poet , novelists and translator. She had an eye for the grandeur of Nature. She had also expressed thoughts about Love, Maya, Virtue and Fate. Toru wrote her only English novel **Bianca**, or **The Young Spanish Maiden** unpublished. She also wrote a French novel **Le Journal de Mademoiselle d'Arvers** which published in France in 1829. Her ideals were to interpret the East to the West. Toru Dutt wrote : "I long to pour immortal lays Great paeans of perennial truth."

R. S. Tiwari emphasizes in his article 'Literature as Communication', 'The speech of the poet is victorious which harbours a world which baffles the Laws of Destiny, which is impregnated with joy, which is absolutely independent and which is beautiful.' (Tiwari 2002, 31).

• **Anita Desai's Writings** : Anita Desai, the great novelist of the Indian English fiction was born in 1937. She holds a unique place among the contemporary Women novelists in India. She has published ten novels. Her women characters in her novels rebel against patriarchal community. Her married women characters like Maya in **Cry**, a Peacock, Monisha in, **The City**, Nanda in **Fire in the Mountain** and Sita in **Where shall We Go This Summer?** become depressed, violent or self-destructive.

She like Kafka unfolds the existential traits of man in society.

• **Arundhati Roy's Writings** : She was born in 1961, in Bengal. The International community knows Arundhati Roy as an artist with her novel 'The God of Small Things'. Roy is the first Indian author to have won **Broker Prize**. Her major essays 'The End of Imagination' and 'The Greater Common Good' are available online. She is an iconoclast in 'The God of Small Things.' The novel is unique in every aspect.

• **Manju Kapur's Writings** : She was noted novelist and Professor of English in Delhi. Her first novel 'Difficult Daughters' received the **Common Wealth Award**. Her novel 'A married Woman' is a seductive story of a love at a time of political and religious upheaval. In her writings, Kapur has focused on the issues in the context of patriarchy, inter-religious marriage, family bond, co-existence of past and present. She narrated her women protagonists as a victim of domestic violence, biology, gender and circumstances.

• **Shashi Deshpande's Writings** : She is the second daughter of the famous Kannada dramatist Shriranga. She worked as a journalist for the magazine 'On Looker.' Her first novel 'The Dark Holds No Terror' was published in 1999. She won the **Sahitya Akadami Award**, for her novel, 'That Long Silence.' Her third novel 'Roots and Shadows' is famous. She presents the problems and concerns of the middle-class Indian Women. Her writings are rooted in the culture in which she lives. A novel 'A Matter of Time' is a continuation of her search into the many facts of the feminine experience.

• **Ashapura Devi's Writings** : She has emphasis on the revival of a reformed traditional womanhood. She considers education of women to be of utmost importance. She is more critical of women than she is of men. In her Trilogy, 'Pratham Pratishruti', **Subarnalata** and **BakulKatha**, Devi traces the progression of the feminist movement from colonial to post-colonial periods in India. She shows how the individual or smaller self finds liberation from pain and isolation.

• **Kamala Markandya's Writings** : She is one of the greatest women novelists. She won international fame and recognition with the publication of her first novel 'Nectar in a Sieve,' in 1954. She is well known for writing about cultural clashes between Indian urban and rural societies. Her other works are 'Some Inner Fun,' 'A Silence of Desire,' 'Possession,' 'A handful of Rice,' 'Pleasure City' etc.

Kamala's 'Nectar in a Sieve' is about a strong hero by the name of Rukmani. As she narrates her story, the readers are involved in her pain. It was only after World War II, says **Srinivasa Iyengar**, "that women novelists of quality have begun enriching Indian Fiction in English. Of these writers, Kamala Markandaya and Ruth Praver Jhabvala are unquestionably the most outstanding" (P. 5).

• **Kiran Desai's Writings** : She born in 1971 as an Indian author. Her novel 'The Inheritance of Loss' won the **Booker Prize** in 2006. Her first novel 'Hullabaloo' published in 1998. She has handled many important issues of modern civilization. She has expressed political, economic, cultural, social and educational aspects through her novels.

• **Nayantara Sahgal's Writings** : She was born in 1927. Her fiction deals with India's elite responding to the crises engendered by political change. She was the first female Indo-Asian writer to



receive wide recognition. Her main works are : 'Prison and Chocolate Cake,' 'This time of Morning,' 'Rich like us' etc.

Santha Rama Ran, Shakuntala Shrinagesh, Anita Chaudhary, Chhaya Dattar, Ismat Chugatai, Bharati Mukherjee are some other women novelists to be remembered in this connection. After independence, the Indo-Anglian writers of fiction and poetry are more self-confident than ever before. There is a sudden widening of the horizons and a keener and deeper interest in the history of our people and country. The post-independence novelists and poets seem to stand between the two worlds- one dead, the other yet to be born.

Conclusion :

Indian literature is called 'Indo-Anglian' literature which comprises the work of Indian writers, in English. English is used here either as the literary lingua franca of Indian or as a world language. Indo-Anglian literature had had an illustrious history. It reveals many literature forms. It has the mystical tradition which persisted through the centuries. This tradition embraces the whole of life. It is related to the earth, the mother, the father, the heaven. It is interested in the empire of man over nature and in social regeneration and individual liberation. The Indians writing in English acquire a national consciousness and write to interpret the mind and heart of India to the West. Indian Women writing in English is being recognized as main contemporary current issues in English literature. Much of the world's literature has been dominated by Women's writing more than two centuries ago. The majority of novels written by Indian women writers show the psychological sufferings of the frustrated homemakers. The last decade has seen the emergence of prominent feminist in Indian Literature. Indian women novelists have explored female subjectivity in order to establish an identity. The theme is from childhood to womanhood – developed society respecting women in general.

References :

- Goodman, W. R. (1968). *Quintessence of Literary Essays*. Delhi : Doaba House, Reprint : 2001 Pp. 263-275.
- Iyengar, S. (1985). *Indian Writing in English*. New Delhi : Sterling Publishers, P. 5.
- Jha, Gauri (2006). *Current Perspectives in Indian English Literature*. New Delhi : ATLANTIC Publishers (P) Ltd, P. 10.
- Sali, S. T. (2013). *Leading Writers of Indian English*. Kanpur : Chandralok Prakashan, Pp 119-139.
- Tilak, Raghukul. (1994). *Kamala Markandaya : Nectar in a Sieve*, New Delhi : RAMA BROTHERS EDUCATIONAL PUBLISHERS Pp 1-5.
- Tiwary, R. S. (2002). *Literature as Communication (Current Perspectives in Indian English Literature)* : 2006, P.168.



Certificate of Publication

Mrs. Shraddha A. Raravikar

Assistant Professor

M. V. P.'s ASC College, Ozar (Mig)

Dr. Mrunal A. Bhardwaj

Professor and Head

Department of Psychology

Graduate and Post Graduate Centre

L. V. H. College, Nashik

TITLE OF RESEARCH PAPER

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448 /119/76, KALYANPURI THAKURGANJ, CHOWK, LUCKNOW -226003 U.P.,

Cell.: 09415578129, 09415141368, 09161456922 | E-mail : dr.vinaysharma123@gmail.com

Website : <http://www.sereseachfoundation.in> | <http://www.sereseachfoundation.in/shodhsarita>

INTENTIONAL ENRICHMENT TECHNIQUE : AN EFFECTIVE METHOD FOR IMPROVING HAPPINESS AND HELPING ATTITUDE

■ Mrs. Shraddha A. Raravikar*
Dr. Mrunal A. Bhardwaj**

ABSTRACT

The article describes a positive activity intervention designed by authors. The controlled trial started with a random assignment of academic professionals (fifty percent females) in one treatment and one control group. The Temporal Satisfaction with Life Scale and The Helping Attitude Scales were employed as pre test and post test measures of happiness and helping attitude. The results of a post test analysis of fifty days intervention showed that the technique was successful in augmenting the level of happiness and helping attitude of subjects. The controlled trial illustrated in this article is an extension of the study reported earlier (Bhardwaj & Raravikar, 2015). A major modification in delivering the intervention is done by giving subjects a choice to select activities of their interest. The change is done considering the importance of 'person-activity fit' suggested by Lyubomirsky and her colleagues (Lyubomirsky et al, 2005). An additional variable of helping attitude is also included in present study.

Keywords : Intentional Enrichment Technique, Subjective Well-being, Helping Attitude

'Positive Activity Interventions (PPIs)' is a scientific answer given by positive psychologists to an age old question 'what will make people happy?' One such intervention named as 'Intentional Enrichment Technique' is designed by the authors of this article. The technique attempts to provide tailored positive experiences that would increase level of happiness. In her research, Dr. Isen (Isen, 1987) has found that people were more prone to help others while in a positive state. So the authors of the study suggest that the elevated happiness will be followed by the elevated helping attitude.

The key objective of this study is to replicate the findings of earlier research done by the authors; but with improved experimental conditions. These improved conditions would be helpful in authenticating the effectiveness of the 'Intentional Enrichment Technique'. The improvement is done in two ways. First modification is done in delivering activities. In the earlier study, subjects were asked to do one activity per day and complete all the activities in a particular sequence. While

conducting this study, subjects were asked to choose any activities of their interest and follow one activity a day during intervention period in a sequence they like. If subjects choose fewer activities, they were asked to repeat them during the intervention period. Secondly, another variable of concern that is highly correlated with happiness i. e. helping attitude, is included in study to test the simultaneous augment in happiness and prosocial attitude.

Intentional Enrichment Technique

According to Lyubomirsky and colleagues, fifty percent of a person's happiness is influenced by genetics and another ten percent is determined by circumstances. It still gives forty percent chances to increase happiness by intentional activities. "Intentional Enrichment technique" suggests such activities. The technique is based on Fordyce's 14 Happiness Fundamentals (1977, 1983).

The Intentional Enrichment is divided into five components -

*Assistant Professor - M. V. P's ASC College, Ozar (Mig)

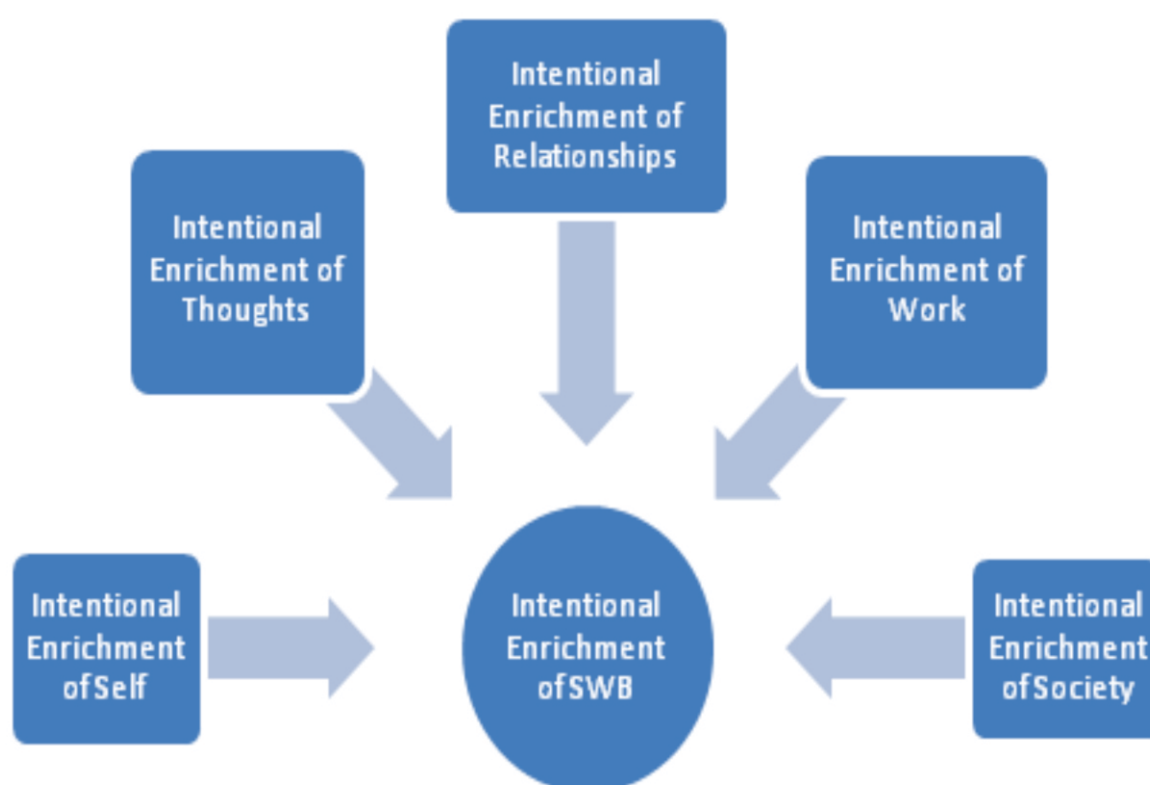
**Professor and Head - Department of Psychology, Graduate and Post Graduate Centre, L. V. H. College, Nashik

hahy

1. Enrichment of the Self
 2. Enrichment of Thoughts
 3. Enrichment of Relationships
 4. Enrichment of the Work
 5. Enrichment of society
- Pre-conditions of Enrichment

1. Individual should motivated to take responsibility of own happiness
2. Individual should put active efforts in boosting own happiness
3. The target should not be of evading pain but of offsetting its effects

Intentional Enrichment



The model is based on Fordyce's 14 Happiness Fundamentals (1977, 1983)

Significance and Implementation

Enrichment of the Self

The first focus of the effort is 'improvement in self'. It involves cleaning off negativities of mind and charging it positively, developing good habits and attaining ones potential.

Activities

1. Smiling frequently
2. Possession List
3. Giving small gifts
4. Smiling at stranger
5. Ventilate poisonous thoughts
6. Humorous literature

7. SWOT Analysis
8. Accepting the self
9. Setting Goals
10. Follow greatest passions

Enrichment of Thoughts

The principle of 'we feel the way we think' can be used to enrich our thoughts. Albert Ellis has proved the effectiveness of this principle in his psychotherapy.

Activities

1. Understanding "We feel the way we think"
2. Learning Albert Ellis's ABC
3. Re-analysing sad stories
4. Re-assessing negative life event

5. Recalling positive moments
6. Positive monologue
7. Auto suggestions
8. Comparing downwards
9. Positive wall paper
10. Savouring

Enrichment of Relationships

The enrichment of relationship would definitely contribute in increasing happiness as it will gratify our need to love and to belong.

Activities

1. Gratefulness chits
2. Appreciating others
3. Creating a love account
4. Saying please and sorry
5. Forgiveness chits
6. Walking in others' shoe
7. Focusing on others' good qualities
8. Capitalizing on special events
9. Writing to forgotten friends
10. Helping

Enrichment of the Work

Mostly, our day time is filled by our job. Its enrichment will justly give a way to richer life.

Activities

1. Using a decision tree
2. Searching for a bigger meaning in work
3. Making a list of what work gives you
4. Doing your best
5. Congratulating oneself
6. Decorating work setting
7. Using commuting time optimally
8. Valuing the journey towards work related goals
9. Developing Intrinsic motivation
10. Mentoring

Enrichment of society

We own a great credit to people and environment. So giving back is emotionally very rewarding.

Activities

1. Searching a greater meaning in life
2. Spreading a smile
3. Sharing an inspiring story
4. Planting a tree

5. Sending plastic for reuse
6. Volunteering
7. Working on a cause
8. Lending an ear
9. Lending a book
10. Sharing your enrichment

Review of Literature -

The pursuit of enhancing well-being and lessening the pain has piloted a large amount research in the area of Positive Psychology that resulted in various successful 'Positive psychology Interventions (PPIs)'. Such interventions are designed to add positivity in people's life and to help them to cope with the negativities (Seligman, Rashid, & Parks, 2006). Sin & Lyubomirsky (2009) defined PPIs as "treatment methods or intentional activities aimed at cultivating positive feelings, positive behaviours, or positive cognitions". Intentional activities are committed and effortful acts people choose to engage in. These activities can be behavioural, cognitive or motivational. According to Parks and Biswas-Diener (2013), the activities must meet the following conditions to be called a PPI: they should be dealing with a "positive psychology construct" and should have a research supporting their usefulness.

The first research based PPI was developed by Dr. Michael Fordyce. In 1977, he published seminal experiment crafted to increase happiness. By using the known characteristics of happy people as a base, he developed a program of happiness-increase (i.e. 14 Fundamentals for Happiness). The research established that individuals could be taught to increase their happiness dramatically (an average of 25 percent) by giving appropriate training. In 1983, Dr. Fordyce successfully replicated and refined his early research by conducting four consecutive studies. The findings of these seven studies carried out during these two experiments specify that the program has a significant, long lasting effect on the happiness of subjects.

The augmented happiness can boost helping too. Two research studies of Isen and Levin (1972) proved that spirit of helping others increases with heightened levels of happiness. In the first study, fifty two males were randomly divided in experimental condition of 'feeling

good' and a neutral condition. After distributing cookies to experimental group only, both the groups were further divide into 'help' and 'hinder' conditions. The results showed that students receiving cookies were geared up more to volunteering than the students receiving no cookies. ($t=1.96$).

Considering the positive correlationship between happiness and helping attitude and findings reported by Isen and Levin (1972), the authors of this study predicted that the elevated level of happiness would simultaneously lead to increase in helping attitude.

Statement of the problem -

To test the effectiveness of 'Intentional Enrichment Technique' in enhancing subjective well-being and helping attitude of college teachers

Objectives -

1. To test the effectiveness of 'Intentional Enrichment Technique' in increasing subjective well-being
2. To test the simultaneous enhancement in happiness and helping attitude

Hypotheses -

1. The level of subjective wellbeing will be higher in experimental group after the intervention
2. The level of helping attitude will be higher in experimental group after the intervention

Method

Design and Participants

A convenient sample of 100 college teachers (Females=50%) ageing between 30-55 (Mean age=42.81, SD=7.28) from L. V. H. College, Nashik, Maharashtra and M. V. P.'s Arts, Science and Commerce College, Ozar MIG, Maharashtra participated as subjects.

Procedure

Following the random assignments to a control group and an experimental group, teachers were assessed for their baseline level of subjective well-being and helping attitude.

The intervention viz. Intentional Enrichment Technique was introduced to the treatment group only. Subjects were asked to choose the activities of their interest.

If they selected fewer activities, they were asked to repeat those activities till the end of the intervention. The

control group was following their usual daily routine. After fifty days of intervention, scores on measures of subjective well-being and Helping Attitude were obtained for post-test comparison.

Materials

The Temporal Satisfaction with Life Scale: The self report inventory of fifteen items is devised by Pavot, Diener, & Suh (1998) that intends to measure the level of life satisfaction of the respondents. The test has high test-retest reliability of 0.83 and Convergent validity of 0.74.

The Helping Attitude Scale: The self report inventory of fifteen items is devised by Nickell (1998) that intends to measure the level of helping attitude. The test test-retest reliability of the test is quiet higher (0.84).

Results

ANOVA is done to know whether the control group and treatment group differ in subjective well-being and Helping Attitude after intervention. The calculated value of 'Fx' of 0.02 ($df=2, 98$) for TSWLS is found insignificant at both the 0.01 (critical value = 3.95) and 0.05 (critical value= 6.92) levels. It elucidates that the two groups did not differ at pre-test.

At the same time, the calculated value of 'Fy' of 11.89 ($df=2, 98$) for TSWLS is found significant at both the 0.01 and 0.05 levels. It clarifies that the groups were significantly different in life satisfaction after the intervention. In short, the control and treatment group were not different in their level of subjective well-being in the beginning of experiment. But they were significantly different at the time of post-test.

The calculated value of 'Fx' of 0.03 ($df=2, 98$) for THAS is found insignificant at both the 0.01 (critical value = 3.95) and 0.05 (critical value= 6.92) levels. It shows that the groups did not differ in their helping attitude at the time of pre-test.

However, the calculated value of 'Fy' (5.8) for THAS is found significant at both the 0.01 and 0.05 levels clarifying that groups differ in their level of helping attitude at the time of post test.

In brief, the control and treatment group were not different in their level of Helping Attitude in the beginning of experiment. But they were significantly different at the time of post-test.

Measure	<i>F</i> ratio (<i>df</i> = 2, 98)	
	<i>F</i> _x (<i>Pre-test</i>)	<i>F</i> _y (<i>post- test</i>)
TSWLS	0.02	11.89**
THAS	0.03	5.8*

*Significance at 0.05 level; ** Significance at 0.01 level

TSWLS: Temporal satisfaction with life Scale

THAS: The Helping Attitude Scale

The 't' test was done after considering the between means of pre-tests and post-tests. significance of 'Fy' to further analysis the differences

Measure	Groups	Pre-Test		Post- Test		Calculated Value of 'z'
		Mean	SD	Mean	SD	
TSWLS	Control Group	71.68	8.002	71.85	8.1	0.1
	Experimental Group	71.68	8.32	77.95	6.99	4.098**
THAS	Control Group	75.87	7.65	75.87	7.65	0
	Experimental Group	76.14	7.7	80.3	7.7	2.70**

** Significance at 0.01 levels

The results of 't' test confirms our first hypothesis. As expected we found a statistically significant difference between the means of pre-test (M =71.68, SD = 8.32) and post-tests (M=77.95, SD= 6.99) of treatment group. The value of standard sigma scores (z= 4.098) exceeds the critical value of 2.37 at 0.01 levels. But no statistically significant difference was found between the means of pre-test (M=71.68, SD= 8.002) and post-test (M=71.85, SD=8.1) of control group as the value of standard sigma scores (z= 0.1) does not exceed the critical value of Z scores. Hence, the first hypothesis can be accepted at 0.01 levels.

Like Subjective well-being, the teachers of experimental group showed increase in Helping Attitude also. As expected we found a statistically significant

difference between the means of pre-test (M =76.14, SD = 7.7) and post-tests (M=80.3, SD= 7.7) of treatment group. The value of standard sigma scores (z= 2.70) exceeds the critical value 2.37 at 0.01 level. But no significant difference was found between the means of pre-test (M=75.87, SD= 7.65) and post-test (M=75.87, SD=7.65) of control group as the value of standard sigma scores (z= 0) does not exceed the critical value of Z scores. Therefore, the second hypothesis can be accepted at 0.01 levels.

Discussion

A positive psychology intervention was designed by the authors while drawing on the research of Dr. Michale Fordyce (1977, 1983). The effectiveness of intervention was successfully verified in earlier study

(Bhardwaj and Raravikar, 2015). But getting positive results in a single experiment may not justify the effectiveness of Intentional Enrichment Technique. Also, authors found it necessary to modify the way of delivering intervention. According to Lyubomirsky et al. (2005), 'person-activity fit' may prove an important contributor in the success of intervention. So the present experiment was conducted by considering the 'person-activity fit' that was missing in earlier study.

The first hypothesis is confirmed and well supported by an internet based training program conducted by Seligman and Steen (2005) on a convenient sample (N=577) verified the success of five positive exercises in increasing happiness as compared to a neutral activity of recalling early memories. The results showed that three out of the seven interventions were successful in increasing happiness that lasted up to six months.

The second hypothesis is also confirmed and well supported by the classical experiment of Isen and Levin (1972). In the first study of the experiment, fifty two male students were divided randomly to two conditions i.e. feeling good by receiving cookies and neutral. The more number of students in a feeling good condition were ready to serve as a research confederate as compared to the students from neutral condition. In the second study of the experiment (N=41), the subjects receiving money unexpectedly, were more inclined to help strangers to gather the papers dropped down by them.

Conclusion

The accomplishment of Intentional Enrichment Technique in augmenting happiness and helping attitude is convincing.

References :

- Bhardwaj, M. A. & Raravikar, S. A. (2015). Intentional Enrichment of Subjective Well-being. *The International Journal of Indian Psychology*, 3 (1), 109-116
- Diener E. (2000). Subjective Wellbeing, A Science of Happiness and a Proposal for National Index. *American Psychologist*, 55 (1), 34-43
- Fordyce M. W. (1977). Development of a Programme to Increase Happiness personal Happiness. *Journal of Counseling Psychology*, 24, (6), 511-521
- Fordyce M. W. (1983). A Programme to Increase Happiness: Further Studies, *Journal of Counseling Psychology*, 30 (4), 488-498
- Fredrickson, B.L. & Losada, M. F., (2005). Positive Affect and the Complex Dynamics of Human Flourishing. *American Psychologist*, 60 (7), 678-686
- Fredrickson, B.L., et al. (2000). The Undoing Effect of Positive Emotions. *Motivation and Emotion*, 24 (4), 237-258
- Isen, A. M. & Levin P. F. (1972). Effects of Feeling Good on Helping: Cookies and Kindness. *Journal of Personality and Social Psychology*, 21 (3), 384-388
- Lyubomorsky, S. et al. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success? *Psychological Bulletin*, 131(6), 803-855
- Lyubomorsky, S. et al. (2005). Pursuing Happiness: The Architecture of Sustainable Change. *Review of General psychology*, 9 (2), 111-131
- Nickell, G. (1998). The Helping Attitude Scale. Paper presented at 106th Annual Convention of the American Psychological Association at San Francisco, August, 1998
- Parks, A. C, Biswas-Diener, R. (2013). Positive Interventions: Past, Present and Future. In Kashdan, T., Ciaarochi, J., editors. *Mindfulness, Acceptance and Positive Psychology: The Seven Foundations of Well-being*. Oakland, CA: New Harbinger. 140-165
- Pavot, W. et al. (1998). The Temporal Satisfaction with Life Scale. *Journal of Personality Assessment*, 70 (2), 340-354
- Sin, N. L. & Lyubomirsky, S. (2009). Enhancing wellbeing and Alleviating Depressive Symptoms with Positive psychology Interventions: A Practice-Friendly Meta-Analysis. *Journal of Clinical Psychology*, 65 (5), 467-487
- Seligman, M. E. P. et al. (2005). Positive

Psychology Progress: Empirical Validation of Interventions. American Psychologist, 60 (5), 410–421.

- Seligman, M. E. P. et al. (2006). Positive Psychotherapy. American psychologist, 61 , 774-788

