RESEARCHER

RESEARCHER

Volume XV

No. 1

2019

SCIENCE AND TECHNOLOGY

SOCIAL SCIENCES

BUSINESS STUDIES

ARTS AND HUMANITIES

The Journal of University of Jammu

CONTENTS

SCIENCE AND TECHNOLOGY

A Multidisciplinary View on Information: A Case Study

N Suresh Rao*

ABSTRACT

In this research article parity is drawn between information and object which is extremely important within context of information communication and technologies as it is applied in various domains. Basic questions of course arise from time to time what is the relation between information and object. Various possible approaches are taken to understand the said relation in the past also. However, in this research article attention is drawn once again to focus to analyse relationship between information with that of object. A theoretical study is done from the various literature sources available and based on the contents available, a conceptual view is presented on information and its domains. Conclusion arrived therein is presented for understanding cognitive process underlying information flow.

Keywords: Cognitive Science, Entropy, ICT.

Introduction

Information communication [9] and technology (ICT) has a greater impact on society, in every domain and on humans in general. ICT acts as interface in contributing various applications in different disciplines. The concept of information and object has been explored in various fields such as computer science, physics, philosophy, neuroscience, cognitive science etc. Information is an ambiguous term applied in every sphere of life. According to Shannon [8], information is a measure of the decrease of uncertainty at a receiver.[1] This means establishing coherent connection between source and destination as shown in figure-1.

Similarly layman's conception of information source is newspaper, computer printout etc. For Benjamin Schumacher a physicist said that information is ability to choose alternatives available. "But information is processed form of data that is transmitted, presented and received signals within frame having boundaries. Without a frame, it is difficult to understand, view or access information [3].

Inspiration View

Information is embedded in the nature in some form or the other. Shannon's theory [1] states information in terms of uncertainty and entropy [10]. How information rate can be transmitted which is shown in figure-1. Shannon's theory is syntactic and not semantic because it measure amount of information to be transmitted which is useful in coding. However, in case of objects their characteristics are important for understanding information. One should be clear about certain questions such as where do they come from? Are they due to subject, object or society as a whole? According to Brainsmith, a computer scientist, the relationship between computer programs and semantics used is still unclear [4]. According to him computation needs a theory of intentionality in order to address semantics. Thus semantics and representational issues form the base for AI [2].

---

* Department of Computer Science & IT / Computer Centre Block, University of Jammu, Jammu, India

$$\text{Information Source} \rightarrow \text{Transmitter} \rightarrow \text{Receiver} \rightarrow \text{Destination}$$

Channel

Noise
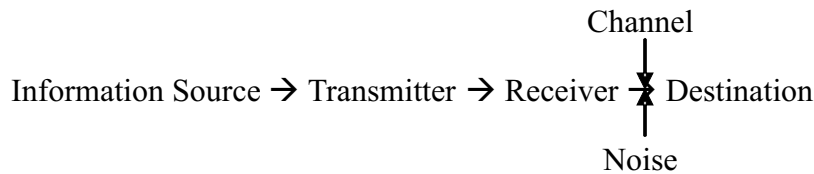
Fig.1 Shannon's communication Model

Multi-Disciplinary View of Information

Marr developed computational model of visual information processing in human and used for object recognition in computer science. He showed three levels in the table-1 the human information processing model in cognitive science that is notions of information. From various examples it is clear that analysis of sign, in particular its syntactic, semantic and pragmatic aspects, forms the main thrust of research for people in the field of semiotics. Thus machine interaction becomes important issue. The essential function of sign that represents for an object represents something. In biology information theory [11] measure organization and converts into numbers. Information in this context means sequence of letters in a specified order. The sequence of nucleotides in DNA is like the letters written in the form of message. Of course the basic objective is to improve the acquisition, transmission and processing of information that is information flow[5].

Conceptual Level:	The goal of computation, why it is appropriate and what logic to be carried out.
Algorithmic Level:	How can be computational theory be implemen ted and represented as a input processed using an algorithm
Hardware Level:	How can the representation and algorithm be realized physically

Table-1: Human information processing model in cognitive science

Need for information theories

For years together lot of attempts have been made to understand how perceptual experiences relate to the world that causes them. In computer science, the problems encountered in designing good user interfaces provide thrust for development of a formal theory of information. The problem of representational content is central aspect of the problem of intentionality. Representational character of computation in software system is to represent and reason about the world objects. In some situations one may represent it as consisting of objects, properties and relations. Yet the conventional model of unambiguous object that have relations to one another which further are represented by symbolically by computer language which of course is a non-explanatory [2].

We need to re-examine old theories and develop new framework and properties of the objects that can satisfy the interactions with environment. A relational property is defined as involving a spatial-temporal relation with macroscopic object. The property exists potentially in the object

regardless of whether the other object actually exists or not. The properties come and vanish with the changing relations of the object with its environment [6].

Conclusion

There is a pressing need for a formal theory of information that includes an account of meaning in addition to quantitative aspect of it due to advancement in science. With the understanding to improve quality information to bring clarity to cognitive science and further the program of human-computer interactions. The concept of information requires thorough discussion with regards to its definition. Further understanding of characteristic features might help in establishing empirical principles in several disciplines. The object and their properties, relation with others in the world should be studied in ontology based.

Thus finally one can say the interaction of organism / object with its environment plays a vital role to understand cognitive process underlying information flow in humans.

References

1. Shannon, C.E., "The Mathematical Theory of Communication", Bell System Technical Journal 27:1948, pp. 379-423.

2. Smith, C.B, "on the origin of objects". A Bradford book, Cambridge, Mass: The MIT Press, 1996.

3. Gomatam, v Ravi, "Quantum theory and observations problem", Journal of Consciousness Studies, vo. 6 No. 11-12,1999, pp. 173-90.

4. Coulter, J., "The informed Neuron: Issues in the use of information Theory in the Behavioural Sciences Mind and Machines":1995, pp.583-596.

5. Dretske, F., "Knowledge and the Flow of information", Cambridge, MA: MIT Press, 1981.

6. Chalmers, J, David, "the Conscious Mind, Oxford": Oxford University Press, 1996.

7. Fodor, Jerry, "Concepts, Oxford"; Oxford University Press, 1998.

8. C.E. Shannon, Communication in the presence of noise, Proc. IRE, 37 (1949), 10-21.

9. R.X.F. Chen, New insights into communicationfrom theory to practice (in Chi-nese), China Machine Press, Beijing, 2013.

10. Berger, A. Della Pietra, S, and Della Pietra, V. A maximum entropy approach to natural language processing. Computational Linguistics, 22(1):39-71, 1996.

11. MacKay, D.J.C. (2001) Information Theory, Inference and Learning Algorithms. http://wol.ra.phy.cam.ac.uk/mackay/itprnn/book.html.

Hydrochemistry and water quality of Gharana wetland conservation reserve, Jammu and Kashmir, India

Monika Sharma*, Rakesh Kumar**, Rohit Rattan*** and Ajay Sanotra****

ABSTRACT

This study was carried out to investigate the current status of water quality of Gharana wetland in Jammu, J&K, India. Surface water samples collected from ten stations in Gharana wetland during winter, summer and monsoon seasons were analyzed for pH, total dissolved solids (TDS), electrical conductivity (EC), total hardness (TH) and major ions (HCO_3^-, SO_4^{2-}, Cl^-, PO_4^{3-}, NO_3^-, F^-, Ca^{2+}, Mg^{2+}, K^+, Na^+). Calcium and magnesium, were found to be the most abundant cations contributing 40 to 60% of the major cation budget. The average Ca^{2+} concentrations ranged from 49.0 to 79.6 mg/L and that of Mg^{2+} ranged from 13.6 to 20.9 mg/L. Bicarbonate, contributed to 75 to 85% of the total anion budget, with average concentration ranging from 207.5 to 370.5 mg/L. Piper diagram showed that the wetland water belonged to Magnesium bicarbonate (Mg-HCO_3) type and possesses temporary hardness. HCO_3^- /(Ca^{2+}+Mg^{2+}) ratio of the Gharana water samples is close to 1 indicated that carbonate weathering by carbonic acid as the dominant source of HCO_3^-, Ca^{2+} and Mg^{2+}. High values of TDS at Site-1, located close to the convergence of an open drain from village into the wetland suggests very high influx of pollutants from the surface and agricultural runoff into the wetland. Higher TDS values observed in monsoons was linked to the erosional sediments in river and surface and agricultural runoff triggered by rain.

Keywords: Hydrochemistry, Wetland, Weathering, Major ions

Introduction

Wetlands are incredible ecosystems that deliver important tangible and intangible goods and services to human civilization (Puff et al, 2002) and facing stress of pollution from increased anthropogenic interferences (Gaury et al., 2018). Various biogeochemical processes taking place in wetland ecosystems regulates important global biogeochemical cycles, including global warming, carbon sequestration, and water quality. Therefore, keen scientific interventions are required to monitor and understand the hydrochemistry of these water bodies (Saleem et al., 2015). Hydro-chemical characteristics of natural water bodies are usually controlled by complicated factors, such as regional geology and geochemistry, the intensity of chemical weathering on rocks, water-rock interaction, and recharges from precipitation, surface water or groundwater (Jin et al., 2010; Kumar et al., 2017). Anthropogenic inputs such as industrial and sewage discharge and intense agricultural practices can also lead to spatiotemporal changes to the major ions trends and hydro-chemical properties of water (Khatri and Tyagi, 2015).

Gharana wetland conservation reserve is a small water body in Jammu, J&K. It is surrounded by wetlands of Makwal, Kukdia, Abdullian and Pargwal where more than 170 resident and migratory

* Student, Department of Environmental Sciences, University of Jammu, Jammu, India
** Assistant Professor, Department of Environmental Sciences, University of Jammu, Jammu, India (corresponding author)
*** Senior Project Officer, WWF-India, Western Himalayan Landscape, Jammu, India
**** Assistant Professor, M.A.M. College, Jammu, India

bird species, such as bar-headed geese, gadwalls, cormorants, egrets and green shanks flock during the winter (Times of India, 2018). Wetland is surrounded by agricultural fields and located on the periphery of Gharana village. Despite being an important bird area, the wetland is facing problem of land encroachment, sewage/waste water discharge and agriculture runoff. Here, we sought to examine the major ion chemistry of Gharana wetland to explore their relationships and discriminate between pollution sources.

3. Description of the Study Area

Gharana wetland is located near the International border with Pakistan in the R.S. Pura sector of Jammu, J&K (Figure 1). Gharana located along the Central Asian flyway is a notified wetland conservation reserve under the Jammu and Kashmir Wildlife Protection Act, 1978 and an Important Bird Area (IBA) (The Tribune, 2018). Besides the home to many local and trans-boundary bird migrants, Gharana also harbours a healthy population of turtles, snakes, amphibians and fishes. The wetland is located in the periphery of Gharana village ($74^{\circ}41'0"E$, $32^{\circ}32'0"N$ to $74^{\circ}42'0"E$, $32^{\circ}33'0"N$). Wetland has a total area of 0.75 Km^2 and is surrounded by agricultural fields in three sides and the village boundary on one side. The open water area of the wetland is surrounded by a large expanse of swamps towards periphery which further merges with the agricultural fields. Gharana wetland is threatened by land encroachment and pollution inflow from residential homes and agricultural runoff. A large part of the wetland is covered by algal blooms and weeds which are removed manually from the wetland every year. Gharana wetland receives water through a narrow watercourse originating from the security ditch, a sort of canal made for security reasons near Indo-Pak international water. It also receives irrigational overflow water from the surrounding agricultural fields. A large open drains from the Gharana village open into the wetland discharging sewage carrying human and animal excreta into the wetland.

3. Experimental Details

3.1 Water samples: collection, processing and analysis

Water samples were collected from ten sites in Gharana wetland during winter (November), summer (May) and monsoon (July) seasons. Samples were collected in pre-cleaned dry polyethylene terephthalate (PET) bottles (1000 ml) from different locations in the wetland using a boat. The location of sampling stations has been shown in Figure 2. Electrical conductivity (EC), acidity (pH) and temperature (T) were measured in the field with portable WTW Multi 340i, SET water analysis kit. Samples were immediately transported to our laboratory and filtered with 0.45 μm pore size filter paper to separate the suspended sediments and stored at low temperature till further analysis. Water samples were analysed for determination of the major anions (F^-, Cl^-, NO_3^-, SO_4^{2-}, PO_4^{3-}) and cations (Na^+, Ca^{2+}, K^+, Mg^{2+}) using Ion Chromatograph model: Metrohm 850 Professional IC installed in instrumentation facility of Department of Environmental Sciences, University of Jammu. HCO_3^- concentrations were determined using titrimetric analysis. Prior to analysis, IC was calibrated using anion and cation standards procured from Merck. Before placing in the auto-sampler of Ion Chromatograph, samples were again filtered with polyvinylidene fluoride (PVDF) membrane filters having pore size to 0.2 μm. Total permanent water hardness (TH) was calculated as sum of calcium and magnesium hardness [TH as mg/l of $CaCO_3$ = 2.497 (Ca^{2+}) + 4.115 (Mg^{2+})].

2.3 Quality Control

Analysis of field and laboratory blanks showed that contamination during the sampling, sample

transport and treatment, and analysis was minimal. Analytical uncertainties were estimated by calibrating the IC with freshly prepared working standard solution of 1 ppm, from a 1000 ppm stock solution. The variation in peak area was found to be less than 5%. The detection limit for every ion was calculated as three times the standard deviation of the blank. A standard of known concentration was run after every ten samples to check the instrumental stability and precision. The analytical precision for the measurement of major ions is better than ±5%. High degree of correlation ($R2 = 0.94$) between milli-equivalent concentrations of ∑anions and ∑cations shows the goodness of the sampling and analysis (Figure 3).

4. Results and Discussions

4.1 Water Chemistry

The results of physicochemical analysis of the water samples have been summarized in the table 1. Gharana water has been found to be alkaline in nature with a pH ranging between 7.1 and 8.6. pH variations in water control the weathering pattern and availability of dissolved solids (Anshumali and Ramanathan, 2007). Higher total dissolved solids were observed in the monsoon season (Avg: 754.5 mg/L) in comparison to winter (Avg: 569.0 mg/L) and summer (Avg: 522.6 mg/L) which could be linked to higher erosional materials in the source water of Chenab river and larger contribution of dissolved load from irrigational overflow of surrounding agricultural fields. The major ions concentrations in the water samples showed significant seasonal variability with anionic concentrations varying in the order as $HCO_3^- > SO_4^{2-} > Cl^- > NO_3^- > PO_4^{3-} > F^-$ and cations as $Ca^{2+} > Na^+ > K+ > Mg^{2+}$ during the winter season. Likewise, during summers concentrations of anions and cations decreased as $HCO_3^- > SO_4^{2-} > Cl^- > NO_3^- > PO_4^{3-} > F^-$ and $Ca^{2+} > K^+ > Mg^{2+} > Na^+$ respectively. And during monsoon, varied as $HCO_3^- > SO_4^{2-} > Cl^- > PO_4^{3-} > NO_3^- > F^-$ and $K^+ > Ca^{2+} > Na^+ > Mg^{2+}$ for anions and cations respectively.

Calcium and magnesium, the most abundant cations contributed 40 to 60% of the major cationic budget. The average Ca^{2+} concentrations ranged from 49.0 to 79.6 mg/L and that of Mg^{2+} ranged from 13.6 to 20.9 mg/L. High levels of magnesium are also contributed by fertilizer application and from cattle feed which perhaps could be an important source of Mg^{2+} in Gharana. Potassium, generally present in much lower concentrations in natural waters, Natural surface waters typically contain less than 5 mg/L of K^+ (Skowron et al., 2018). K^+ concentrations of 1.041.71 mg/L were reported by Al-mikhlafi et al., (2003) in the Mansar Lake. Potassium can be used as an indicator for potential sources of contamination of aquatic ecosystems, attributed mainly to anthropogenic activities including agricultural land use and via municipal and industrial sewage discharges (Orzepowski and Pulikowski, 2008; Bu et al., 2010). High levels of K^+ ranging from 23.4 to 71.4 mg/L indicates its influx from anthropogenic sources such as inorganic fertilizers like potash from the agricultural fields. Unlike potassium, sodium is much more mobile in soil and often used as an indicator of human impacts on water quality. Human and animal waste is the major source of anthropogenic Na^+ to the natural water bodies. Its concentrations ranged from 8.9 to 45.6 mg/L. Na^+ is found in many minerals e.g. sodium chloride, amphibole, cryolite, soda niter and zeolite. Among anions, bicarbonate is the most abundant, contributing 75 to 85% of the total anion budget, with average concentration ranging from 207.5 to 370.5 mg/L. The HCO_3^- is mainly contributed from weathering reactions and decomposition of organic matter (Chakrapani et al., 2009). Higher sulphate concentration ranging from 27.8 to 42.5 mg/L in the wetland water suggest inputs from the oxidation of sulphur compounds in the lake bottom sediments (Anshumali and Ramanathan, 2007), sewage inflow

and application of sulphate fertilizers. Phosphates are potential pollutants in the water bodies responsible for eutrophication of water bodies. Its concentration ranged from 3.3 to 4.6 mg/L indicates contribution from agricultural runoff, sewage effluents, disposal of solid waste and decomposition of organic matter. High phosphates concentrations is possible responsible for mushrooming of aquatic weeds into the wetland. Relatively lower concentrations nitrates and phosphates in winter and summer seasons may be due to their uptake by phytoplankton and lesser inflow of fertilizer enriched water from the agricultural fields. Phosphates concentrations of 0.5-4.5 mg/L (Das and Kaur, 2001) in Renuka Lake and 1.5 -15.5 mg/L (Al-Mikhlafi et al., 2003) in the Mansar Lake. Higher chloride ranging from 14.2 to 18.7 mg/L levels in the Gharana waters are indicative of its pollution. Chloride originate from both natural and anthropogenic sources like application of inorganic fertilizer, landfills leachates, septic tank effluent and industrial and irrigation drainage. Severe anthropogenic contamination from sewage and agricultural runoff is further confirmed by higher nitrate concentrations ranging from 7.4 to 8.6 mg/L than the These Cl^- and NO_3^- values are observed here are higher than those reported from the Himalayan Lakes in Spiti valley (Das and Dhiman, 2003) and Pandoh Lake (Anshumali and Ramanathan (2007) in Himachal Pradesh.

Overall, the water chemistry of Gharana suggests that the major ion concentrations fluctuated seasonally with highest concentrations reported in the monsoon season. Spatially, concentration of most of the dissolved ions was found to be maximum at Site-1, located close to the discharge an open drain flowing from the village into the wetland. Site-6 and 7 located closer to the inlet where fresh water from the security canal enters the water body had relatively lower levels of ionic concentrations in comparison to other sampling stations. Apart from the Site-6 and Site-7, rest of the sites showed almost similar concentrations of major ions indicating well mixing of the pollutants owing to the small size of the wetland. Results suggests higher influx of pollutants from the surface and agricultural runoff into the wetland while the increased amounts of dissolved solids in during the monsoon season may be linked to increased rate of surface and agricultural runoff triggered after first monsoonal showers.

The primary source of major ions in natural water bodies is atmospheric deposition, dissolution of evaporites (halite, gypsum), weathering of carbonates and silicates by sulphuric acid or carbonic acid and anthropogenic activities (Sheikh et al., 2013). Gibbs diagram (Gibbs, 1970) indicates that the major natural mechanism controlling the water chemistry of the Gharana wetland is the weathering of rocks in the source waters of Chenab River (Figure 3). Ca^{2+}, Mg^{2+} and HCO_3^- are derived from weathering of carbonates rocks by carbonic acid if the ratio of $HCO3-/(Ca^{2+}+Mg^{2+})$ is close to 1 (Stallard and Edmond, 1983) as the carbonate rocks weather congruently. $HCO_3^-/(Ca^{2+}+Mg^{2+})$ ratio of the Gharana water samples is close to 1 which suggests that carbonate weathering by carbonic acid as the dominant source of HCO_3^-, Ca^{2+} and Mg^{2+}. The hydrogeo-chemical facies in the natural water are commonly represented by Piper diagrams (Piper, 1994). Piper diagrams are effective graphic procedure to segregate relevant analytical data to understand the sources of the dissolved constituents in water. The cations and anions are shown by separate ternary plots, the two ternary plots are then projected onto a diamond (figure 4). Piper diagrams shows that Gharana water are dominated by Ca^{2+}, Mg^{2+} and HCO_3^-. This pattern also indicates that the wetland water is dominated by alkaline earth (Ca^{2+}, Mg^{2+}) and weak acids such as HCO_3^-. The plotting of the water samples near the left corner of the diamond in the Piper diagram shows that the wetland water belonged to Magnesium bicarbonate (Mg-HCO_3) type and possesses temporary hardness. There is no significant change in the hydrogeo-chemical facies noticed during winter and summer season, the monsoon season showed a drift towards Ca-Mg-HCO_3 type.

5. Conclusions

In this study, water samples were collected from ten sites in Gharana wetland during winter (November), summer (May) and monsoon (July) seasons and analysed for their physicochemical parameters including pH, total dissolved solids (TDS), electrical conductivity (EC), total hardness (TH) and major ions (HCO_3^-, SO_4^{2-}, Cl^-, PO_4^{3-}, NO_3^-, F^-, Ca^{2+}, Mg^{2+}, K^+, Na^+). Higher TDS were observed in the monsoon seasons (Avg: 754.5 mg/L) in comparison to winter (Avg: 569.0 mg/L) and summer (Avg: 522.6 mg/L) could be linked to more erosional materials in the source river water and larger contribution of dissolved load from irrigational overflow of surrounding agricultural fields. The significant seasonal variability observed in the major ion concentrations indicates the influence of different sources on wetland chemistry. Overall, the anions concentration followed the order as HCO_3^- > SO_4^{2-} > Cl^- > NO_3^-> PO_4^{3-}> F^- during winter season whereas, the cations varied as Ca^{2+} > Na^+> K^+ > Mg^{2+}. Likewise, in summers the anionic concentrations followed the order as HCO_3^-> SO_4^{2-}> Cl^-> NO_3^-> PO_4^{3-}> F^- and Ca^{2+}> K^+> Mg^{2+}> Na^+ respectively. During monsoon, the anions varied as HCO_3^-> SO_4^{2-}> Cl^-> PO_4^{3-}> NO_3^-> F^- for anions and K^+> Ca^{2+}> Na^+> Mg^{2+} for cations respectively. The Gibbs diagram (Gibbs, 1970) indicates that the major natural mechanisms controlling the water chemistry of the Gharana wetland is the weathering of rocks in the source waters. $HCO_3^-/(Ca^{2+}+Mg^{2+})$ ratio of the Gharana water samples is close to 1 which indicates that carbonate weathering by carbonic acid as the dominant source of HCO_3^-, Ca^{2+} and Mg^{2+}. Piper diagram shows that the wetland water belonged to Magnesium bicarbonate (Mg-HCO_3) type and possesses temporary hardness. High levels of major ions like SO_4^{2-}, Cl^-, NO_3^- and PO_4^{3-} in comparison to the studies carried elsewhere shows the severity of pollution load in the Gharana wetland. Higher values observed near the discharge of drain into the wetland suggest the sewage water containing human and animal waste with additional inputs from the agricultural runoff to be the major source of pollution into the wetland.

REFERENCES

Al-Mikhlafi A.S., Das B.K. and Kaur P. (2003) Water chemistry of Mansar Lake (India): An indication of source area weathering and seasonal variability. Environmental Geology, 44: 645-653.

Anshumali and Ramanathan A.L. (2007) Seasonal variation in the major ion chemistry of Pandoh Lake, Mandi District, Himachal Pradesh, India. Applied Geochemistry, 22: 1736-747.

Chakrapani G.J., Saini R.K., Yadav S.K. (2009) Chemical weathering rates in the AlaknandaBhagirathi river basins in Himalayas, India. Journal of Asian Earth Science, 34:347-362

Das B.K. and Dhiman S.C. (2003) Water and sediment chemistry of Higher Himalayan lakes in the Spiti Valley: control on weathering, provenance and tectonic setting of the basin. Environmental Geology, 44:717-730

Das B.K. and Kaur P. (2001) Major ion chemistry of Renuka lake and weathering processes, Himachal

Pradesh, India. Environmental Geology, 40: 908-917.

Gibbs R.J. (1970) Mechanism controlling world water chemistry. Science, 170:1088-1090.

Gupta P.K., Nagdali S.S., Tewari P., Singh N. and Gupta R. (2008) Water chemistry of a National lake of India: lake Nainital, Uttarakhand. Proceedings of Taal 2007, The 12th World Lake Conference: 209-216.

Jin, Z., You, C. F., Wang, Y. and Shi, Y. (2010). Hydrological and solute budgets of Lake Qinghai, the largest lake on the Tibetan Plateau. Quaternary International, 218: 151-156.

Kumar, S. K., Babu, S. H., Rao, P. E., Selvakumar, S., Thivya, C., Muralidharan, S.and Jeyabal, G. (2017). Evaluation of water quality and hydrogeochemistry of surface and groundwater, Tiruvallur District, Tamil Nadu, India. Applied Water Science, 7: 2533-2544.

Khatri N. and Tyagi S. (2015) Influences of natural and anthropogenic factors on surface and groundwater quality in rural and urban areas. Frontiers in Life Science, 8: 23-39.

Orzepowski, W., Pulikowski, K., 2008. Magnesium, calcium, potassium and sodium content in groundwater and surface water in arable lands in the commune (gmina) of Kąty Wrocławskie. Journal of Elementology, 13 (4), 605-614.

Poff, N. L., Brinson, M. M. and Day, J. W. (2002). Aquatic ecosystems and global climate change. Pew Center on Global Climate Change, Arlington, VA, 44, 1-36.

Piper A.M. (1944) A graphic procedure in the geochemical, interpretation of water analysis. American Geophysical Union Trans, 25:914923.

Gaury, P. K., Meena, N. K. and Mahajan A.K. (2018). Hydrochemistry and water quality of Rewalsar Lake of Lesser Himalaya, Himachal Pradesh, India. Environmental Monitoring and Assessment, 190: 84

Saleem, M., Jeelani, G. and Shah, R. F. (2015). Hydrogeochemistry of Dal Lake and the potential for present, future management by using facies, ionic ratios, and statistical analysis. Environment and Earth Science, 74(4), 3301-3313.

Sheikh, J. A., Jeelani, G., Gavali, R. S. and Shah, R. A. (2014). Weathering and anthropogenic influences on the water and sediment chemistry of Wular Lake, Kashmir Himalaya. Environmental Earth Sciences, 71: 2837-2846.

Skowron P., Skowrońska M., Bronowicka-Mielniczuk U., Filipe K T., Igras J., Kowalczyk-Juśko A. and Krzepiłko A. (2018) Anthropogenic sources of potassium in surface water: The case study of the Bystrzyca river catchment, Poland. Agriculture, Ecosystems and Environment 265, 454-460.

Stallard, R. F. and Edmond, J. M. (1983). Geochemistry of the Amazon: 2. The influence of geology and weathering environment on the dissolved load. Journal of Geophysical Research: Oceans, 88: 9671-9688.

Times of India (2018) http://timesofindia.indiatimes.com/articleshow/67021451.cms?utm_source-=contentofinterest&utm_medium=text&utm_campaign=cppst downloaded on 25 June 2019

The Tribune, (2018) https://www.tribuneindia.com/news/jammu-kashmir/migratory-birds-throng-gharana-wetland-in-jammu/689738.html downloaded on 25 June 2019

Hydrochemistry and water quality of Gharana wetland conservation reserve,
Jammu and Kashmir, India

Table 1 Statistical description of the physical and chemical parameters analysed in the surface water samples collected from Gharana wetland conservation reserve

S. No	Parameter	Winter			Summer			Monsoon		
		Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1	pH	7.4	8.1	7.6	7.5	8.6	7.9	7.1	8.0	7.5
2	TDS	443.2	569.0	508.6	325.6	522.6	400.0	586.3	754.5	659.7
3	EC	661.5	849.2	759.1	486.0	780.0	597.0	875.1	1126.1	984.6
4	Ca^{2+}	63.2	87.4	79.6	39.3	65.5	49.0	48.5	83.4	64.5
5	Mg^{2+}	10.2	15.5	13.6	10.9	19.6	13.6	16.7	28.9	20.9
6	Na^+	22.8	32.2	27.5	4.5	15.3	8.9	34.8	63.3	45.6
7	K^+	12.0	42.2	23.4	18.7	45.3	29.9	58.9	88.1	71.4
8	HCO_3^-	234.4	321.5	288.8	151.3	268.6	207.5	313.5	423.7	370.8
9	Cl^-	12.6	23.0	17.2	12.3	16.7	14.2	14.1	26.7	18.7
10	F^-	0.4	0.6	0.5	0.1	0.3	0.2	0.2	2.9	1.3
11	SO_4	39.3	47.5	42.5	24.0	35.1	27.8	25.0	37.3	30.2
12	NO_3	7.9	9.3	8.4	6.2	8.1	7.4	6.5	10.6	8.6
13	PO_4	2.3	4.8	3.3	2.9	5.4	3.9	2.3	7.9	4.6
14	TH	217.8	281.4	254.7	144.5	243.9	178.3	194.9	316.3	247.1

EC – Electrical Conductivity; TDS – Total Dissolved Solids; TH – Total Hardness; TH as mg/l of $CaCO_3$ = 2.497 (Ca^{2+}) + 4.115 (Mg^{2+}); EC in µS/cm units; all other concentrations in mg/l units
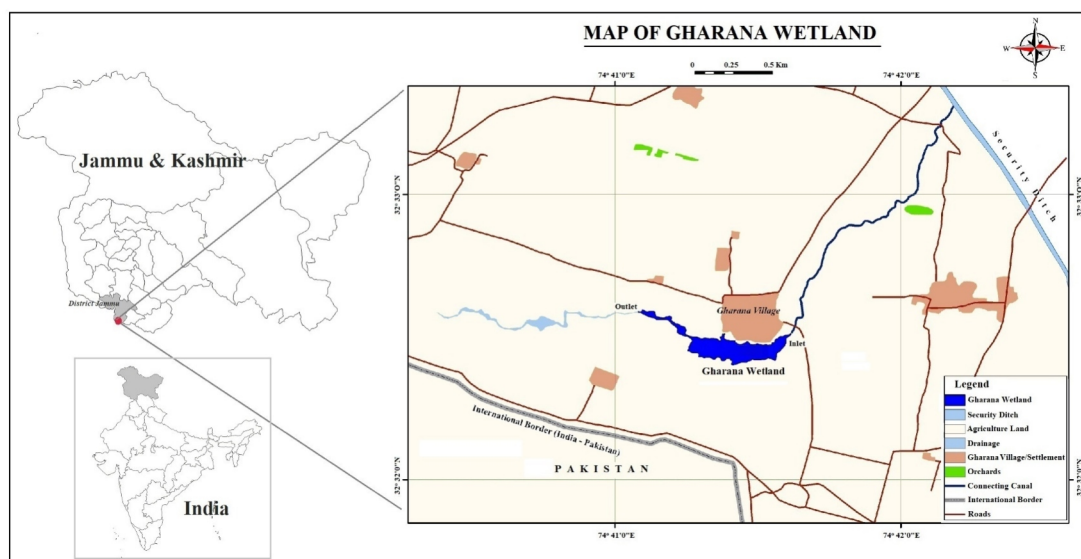
Figure 1 Map showing the location of Gharana Wetland
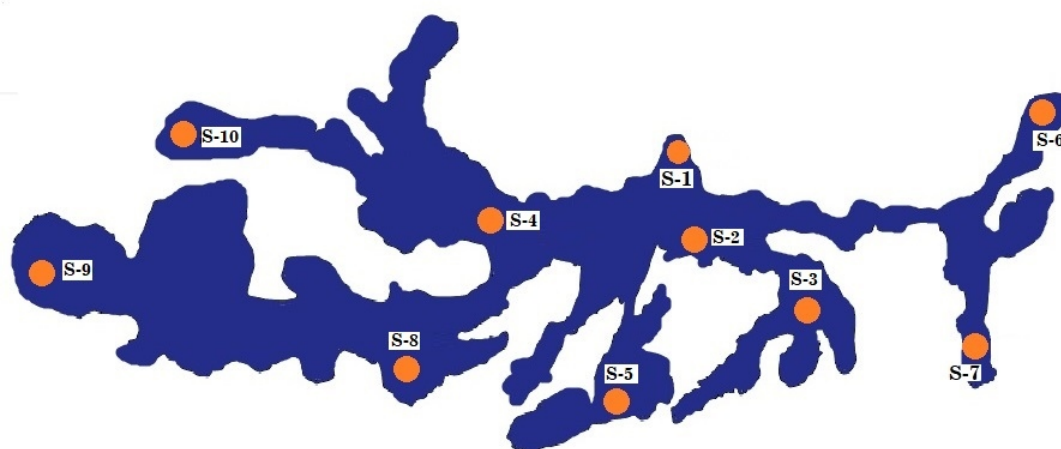
Figure 2 Map of Gharana wetland showing position of sampling points
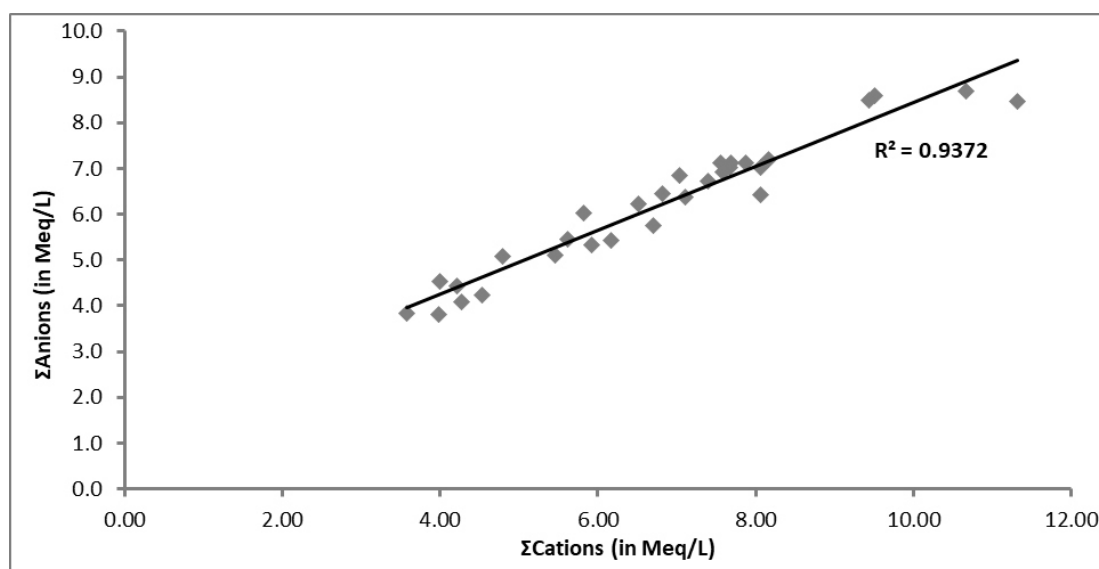
Figure 3 Scatter plot among the milli-equivalent concentrations of ∑anion and ∑cation in water samples showing goodness of the analysis.

Hydrochemistry and water quality of Gharana wetland conservation reserve,
Jammu and Kashmir, India
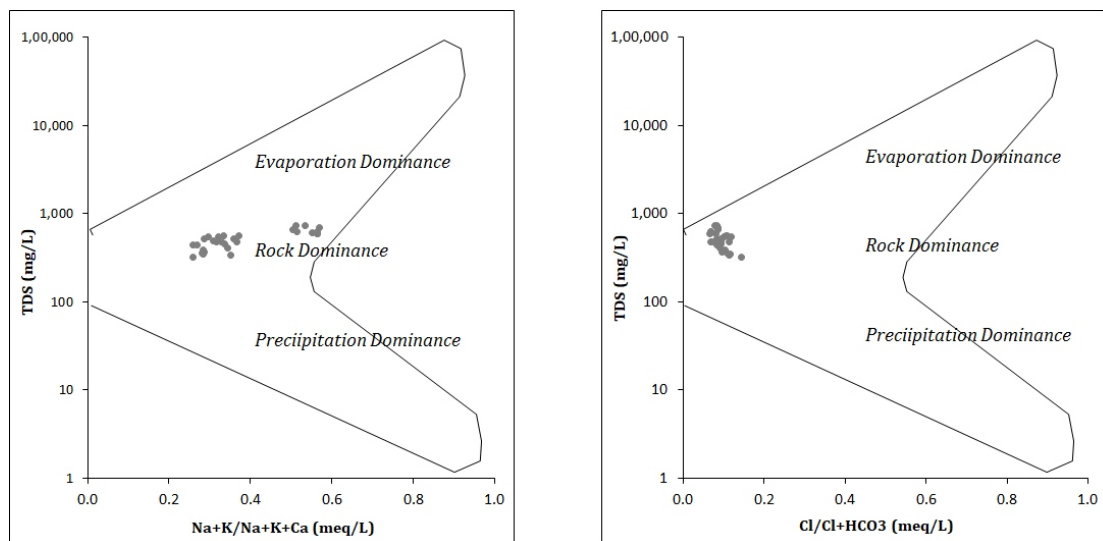
Figure 4 Gibbs plots showing different mechanisms which control the water composition in Gharana wetland
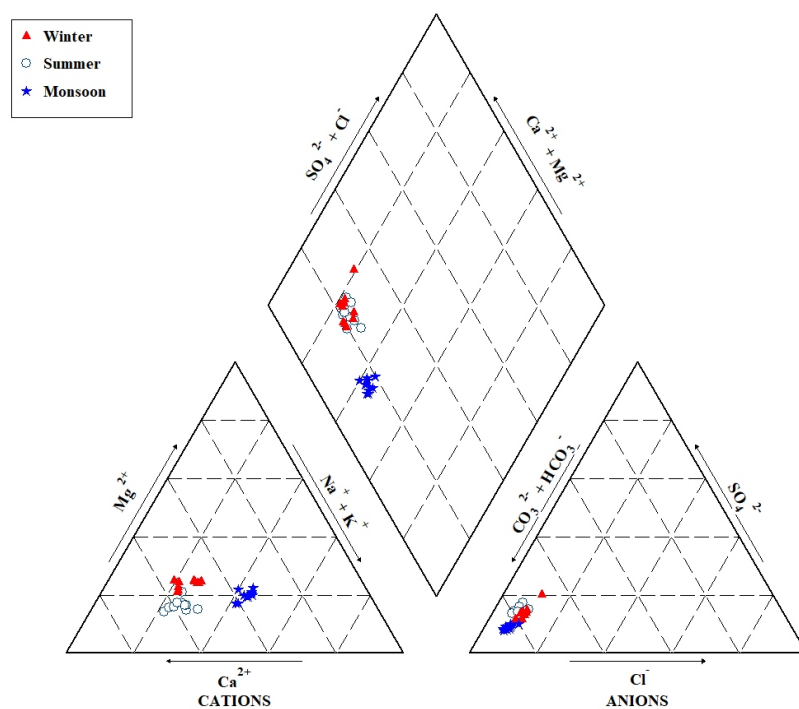
Figure 5 Piper diagram showing hydro-geochemical characteristics of Gharana wetland

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean locality, Uthawali, District Dhar, Madhya Pradesh, Central India

D.S. Kshetrimayum* and Varun Parmar**

ABSTRACT

An assemblage of microfossils comprising ostracods (Paracypretta jonesi, Frambocythere tumiensis anjarensis, Gomphocythere paucisulcatus, Gomphocythere strangulata and Cypridopsis hyperectyphos), molluscs (Physa prinsepii, Valvata minima, Paludina wapsharei, cf. Paludina normalis, cf. Paludina subcylindracea and Lymnaea sp.), fishes (Lepisosteus indicus and Phareodus indet.) and charophytes (cf. Platychara perlata and Microchara sp.) is reported in this paper from a new intertrappean locality discovered near the village Uthawali in District Dhar, Madhya Pradesh, Central India. All the recovered taxa is known to occur in the Upper Cretaceous infra and or intertrappean beds of peninsular India that advocates a Maastrichtian age for the intertrappean beds present in Uthawali. The biota collected from the study area points towards the presence of a permanent, freshwater- lacustrine environment during the deposition of the intertrappean beds at Uthawali.

Keywords: Maastrichtian, Biota, Intertrappean, Uthawali, Palaeoenvironment

Introduction

Intertrappeans are the sedimentary units sandwiched between the Late Cretaceous-Early Palaeocene volcanic flows of Deccan India. The volcanic flows, popularly known as Deccan traps, comprise a LIP (Large Igneous Province) that today covers two third area of peninsular India that equals to about 5,00,000 km^2. The Deccan traps formed by fissure eruption of the Reunion hot spot during the northward voyage of India towards Asia comprise basaltic rocks which as of today are exposed in four major provinces in India, namely Main Deccan Volcanic Province, Mandla Lobe, Saurashtra, and Malwa Plateau. Since the Deccan volcanism was episodic, during the intervening short quiescent periods, the cooled lava flows became habitable regions in and around the lakes and swamps that were formed by infilling of exposed topographic lows of lava flows with water. However, the subsequent lava flow engulfed the lacustrine sediments along with biotic constituents. These sandwiched sediments between two successive lava flows referred as intertrappean beds are a store house of past life. Since these fossils offer important clues to the end Cretaceous mass extinction event and discerning palaeo-connections of India with surrounding landmasses, discovery of new fossil bearing intertrappean horizons has always been warranted. We report here a faunal assemblage comprising ostracods, molluscs, fishes and charophytes that we recently recovered from an intertrappean bed exposed near village Uthawali in District Dhar, Madhya Pradesh and discuss its palaeoenvironmental significance.

Geological setting and locality information

Radiometric and palaeomagnetic studies of the basaltic flows in the Western Ghats of India

*Research Scholar, Department of Geology, University of Jammu, Jammu, India
**Associate Professor, Department of Geology, University of Jammu, Jammu, India (Corresponding author)

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean
locality, Uthawali, District Dhar, Madhya Pradesh, Central India

indicate that Deccan volcanism took place in three short phases interspersed with quiescent periods of considerable time. Phase I occurred at ca. 67.4 Ma, phase II close to Cretaceous-Palaeogene transition and phase III within the early Danian (Chenet et al., 2007, 2008, 2009; Jay and Widdowson, 2008; Jay et al., 2009; Keller et al., 2012; Schoene et al., 2015) which formed Main Deccan Volcanic Province, Mandla Lobe, Saurashtra, and Malwa Plateau. The sedimentary beds associated with these volcanic flows along with its entombed fossils have been studied extensively to know the biodiversity of the Indian plate during the Late Cretaceous and the then prevalent environmental conditions and biogeographic connections of India. These studies have largely been done on the Main Deccan Volcanic Province followed by Mandla Lobe and Saurashtra, with meagre data coming from the Malwa Plateau. The palaeontological study of the Deccan intertrappeans was initiated by Sowerby in 1840 with the report of fossilized ostracod remains. Later in 1860, Hislop reported fossils molluscs followed by discovery of fossil fish remains by Woodward (1908). Huene and Matley reported dinosaurs from the intertrappean beds in 1933 whereas plant remains were added by Sahni in 1934. Indian Geologist later made additional discoveries. Though in the beginning, palaeontological works were mainly focused on megafossils, the introduction of bulk screen washing technique in late nineties led to discovery of microfossils as well. Many new groups of vertebrates, invertebrates, plants and single celled organisms have been added since then. The account of intertrappean biotic assemblages is provided in various works (e.g. Sahni, 1984; Sahni et al., 1994, 1999; Sahni and Khosla, 1994; Khosla and Sahni, 2000, 2003; Prasad, 2012; Prasad and Sahni, 2014; Khosla and Verma, 2015 and references therein) with an updated account by Kapur and Khosla (2018).

The first geological account of rocks occurring in the Lower Narmada valley that passes through Malwa Plateau is that by Blanford (1869). Later, Bose (1884), Rode and Chiplonkar (1935), Roy Chowdhury and Sastri (1962), Guha (1976) added to the geological knowledge of the Lower Narmada valley. In a more recent work, Tripathi (2006) document presence of Precambrian basement rocks (Mahakoshal and Bijawar Groups) in the study area that are overlain by marine Cretaceous rocks of Bagh Group (Jaitly and Ajane, 2013) which in turn are overlain by Upper Cretaceous (Maastrichtian) Lameta beds (Tripathi, 2006). The Deccan volcanic flows with the intercalated sedimentary layers lie above the Lameta's. The presently studied intertrappean sedimentary section in the Lower Narmada valley is exposed near Uthawali village (Fig. 1 a) on the left side of the road from Mandu to Dhar in District Dhar of Madhya Pradesh. Dhar is located about 100 km southwest of Indore city. The sedimentary succession present at Uthawali measures 67 cm (Fig. 1 b) which is overlain by tens of meters of thick columns of basalts. Two sedimentary units, a 45 cm thick yellowish dark, hard siltstone, overlain by 22 cm thick light pink, hard shale are distinguishable. The sedimentary beds overlie the lower basaltic flow whose base is not exposed. The biota discovered from the present study area is similar to the forms known from the intertrappean localities that are Maastrichtian in age viz. Anjar, Asifabad, Kora, Kachchh, Lakshmipur, Mamoni, Mohagaonkalan, Naskal etc. (Prasad and Sahni, 1987; Prasad and Khajuria, 1990; Prasad and Singh, 1991; Srinivasan et al., 1994; Bhandari and Colin, 1999; Whatley and Bajpai, 2000; Whatley et al., 2002, 2003; Bajpai et al., 2004; Khosla and Nagori, 2005; Rathore et al., 2017), and hence a similar age is deduced for the fossiliferous horizon at Uthawali.

Material and methods

A sample of around 200 kg of hard calcareous shale was collected from Uthawali sedimentary sequence. The entire sample was then macerated in maceration laboratory of our department. For

this the sample was first dried in sun followed by heating in oven for about a day at a temperature of 50-70 °C for removing the intra-granular moisture. As the samples were hard and calcareous, acetic acid-copper sulphate method was adopted for its disintegration, wherein the sample was soaked in a solution made by adding copper sulphate pentahydrate powder in glacial acetic acid. The sample was kept in this solution until the effervescences ceased. The acid was then decanted and water was added that brought in disintegration of sample in to mud slurry. The sample was washed repeatedly with water until it was free from acid using ASTM (American Society for Testing and Materials) sieves of different mesh sizes. Thereafter the left over residue was dried and was scanned under stereo zoom microscope, DZ240, for recovery of microfossils. Photographs of the fossil specimens described in this paper were taken from Zeiss Scanning Electron Microscope Model EVO-MA15 and Leica Stereo Zoom Microscope S8AP0. The fossil specimens reported in the present study are reposited in the Palaeontology Laboratory of Department of Geology, University of Jammu.

RECOVERED BIOTIC ASSEMBLAGE

Ostracods

Five species of ostracods belonging to four genera namely *Paracypretta, Frambocythere, Gomphocythere* and *Cypridopsis* have been recovered from the intertrappean bed at Uthawali. Seventeen carapaces of *Paracypretta Jonesi* (Family: Cyprididae) having symmetrically convex dorsal margin and straight or slightly concave ventral margin with maximum length (1.5 mm), height (0.9 mm) and width medially, were recovered from our sample. Both, the larger left valve and the smaller right valve bear dense punctae and longitudinal striations (Fig. 2 g-h). *P. Jonesi* was earlier described from the intertrappean beds of Gitti Khadan, Kora, Chandarki, Mohgaon-Haveli, Jhilmili, Takli and Khar (Bhatia and Rana, 1984; Bajpai and Whatley, 2001; Whatley et al., 2002a; Khosla and Nagori, 2007a, 2007b; Khosla et al., 2009, 2011a; Sharma and Khosla, 2009; Rathore et al., 2017). Further, *P. Jonesi* has been discovered by Khosla et al. (2005, 2010, 2011a, 2011b) from the Lameta beds of Dongargaon, Pisdura, Chui hill and Bara Simla hill.

Frambocythere (Family: Limnocytheridae) in the present study is represented by *Frambocythere tumiensis anjarensis.* The carapace is sub-rectangular when viewed dorsally and laterally and slightly concave ventrally. The surface of valves is ornamented, possessing dense, concentrically disposed hemispherical tubercles which are even more pronounced anterodorsally. Posteriorly, the carapace has well developed spines (Fig. 2 d-f). Maximum length of the carapace is 0.35 mm, height is 0.2 mm and width 0.25 mm. Bhandari and Colin (1999) were the first to describe this species from the intertrappean beds of Anjar. Additionally it has been widely reported from the intertrappean beds of Chandarki, Yanagundi, Mamoni, Mohgaon-Haveli, Takli and Jhilmili (Whatley et al., 2002a, 2003; Khosla and Nagori, 2007a, 2007b; Khosla et al., 2009, 2011a). The species has also been documented from the Lameta beds of Dongargaon (Khosla et al., 2005) and Pisdura (Khosla et al., 2011b).

Among *Gomphocythere* (Family: Limnocytheridae), carapaces of *G. paucisulcatus* and G. *strangulata* have been recovered. *G. paucisulcatus* carapace is sub-ovate to sub-rectangular in lateral view and sub-fusiform in dorsal view. The dorsal margin of the carapace is straight and the ventral margin slightly concave. A weakly developed sulcus is located medially on the carapace whose surface is ornamented with large, reticulate puncta within fossae (Fig. 2 a-b). The maximum length of the carapace is 0.66 mm, height is 0.35 mm and the width is 0.28 mm. *G. paucisulcatus* has been recorded from the intertrappean beds of Anjar, Jhilmili, Mohgaonkalan, Papro and Takli (Whatley et al., 2002b; Khosla and Nagori, 2005, 2007b; Sharma et al., 2008; Khosla, 2015). Besides, the

species has also been reported from the Lameta beds of Dongargaon by Khosla et al. (2005, 2011b) and from Pisdura by Khosla et al. (2010, 2015). Recently, Rathore et al. (2017) and Kapur et al. (2018) recorded this species from the intertrappean beds of Lower Narmada valley, Madhya Pradesh.

G. strangulata carapace is sub-rectangular shaped with both valves ornamented with dense punctae. The carapace is marked by a deep median sulcus and a small anterodorsal sulcus. The dorsal and ventral margins are almost straight (Fig. 2 c). The recovered carapaces are at the most 0.78 mm long and 0.57 mm wide. The taxon is well documented from several intertrappean beds such as, Takli, Mamoni, Asifabad, Lakshmipur, Anjar, Yanagundi, Jhilmili, Khar and Manawar (Bhatia et al., 1990a, 1990b; Bhatia et al., 1996; Whatley and Bajpai, 2000; Whatley et al., 2002a; Khosla and Nagori, 2005; Sharma and Khosla, 2009; Khosla et al., 2011a; Rathore et al., 2017; Kapur et al., 2018). Udhoji and Mohabey (1996), Khosla et al. (2005, 2011b) reported similar taxa from the Lameta beds of Dongargaon and Nand Dongargaon.

A cyprid, *Cypridopsis hyperectyphos* (Family: Cyprididae) too have found in the studied section. Its carapace is strongly inflated and almost circular in outline in dorsal and ventral views. The surface is smooth to delicately punctuate (Fig. 2 i-j). The carapace with maximum length of 0.72 mm has a width of 0.67 mm. Whatley and Bajpai (2000) were the first to cite the species from the Lakshmipur intertrappean. Later the form was reported from various intertrappean localities exposed at Kora, Anjar, Mamoni, Yanagundi, Takli, Papro, Jhilmili, Khar and Dhar (Bajpai and Whatley, 2001; Khosla and Nagori, 2005, 2007b; Whatley et al., 2002a, 2003; Sharma et al., 2008; Khosla et al., 2009, 2011a; Sharma and Khosla, 2009; Rathore et al., 2017; Kapur et al., 2018). Form also occurs in the Lameta rocks of Pisdura (Khosla et al., 2010, 2011b) and Jabalpur (Khosla et al., 2011b).

Molluscs

Six taxa of gastropods (Family: Viviparidae) represent the molluscan fauna of the present study. *Physa prinsepii,* a common biota across the intertrappean beds has a large, ovate, elongated shell whose surface is smooth. The spire is short; the body whorl is maximum towards the apex; aperture is ovate-oblong (Fig. 3 o). *Valvata minima,* a diminutive gastropod species was known from the intertrappean beds of Main Deccan Volcanic Province until now when Kapur et al. (2018) extended its geographic distribution up to lower Narmada valley. *V. minima* shell is small, discoidal, broadly umbilicate below, with three round whorls and very fine vertical striations, and a spherical aperture (Fig. 3 i-j). Other gastropod having ubiquitous distribution in intertrappean beds are *Paludina wapsharei* and cf. *Paludina normalis. P. wapsharei* possesses a large, ovate-conical shell with an acute apex. The shell has five convex whorls and an ovate aperture (Fig. 3 l), whereas cf. *Paludina normalis* shell has large whorls with deep suture and a round aperture (Fig. 3 k). In contrast cf. *Paludina subcylindracea* also recovered from our macerated sample has long and cylindrical shell with 6-7 rounded whorls with a strongly depressed suture, although the aperture is round (Fig. 3 n). Medium size, elongated conical shells with acute apex, 4-5 convex whorls with deep suture and ovate aperture (Fig. 3 m) as in *Lymnaea* sp. too are recorded from Uthawali.

Fishes

Among the fishes isolated teeth and scales referable to two species have been picked from the sorted residue. The first taxon is *Lepisosteus indicus* (Family: Lepisosteidae) represented by its dental remains. The teeth are conical to lanceolate in shape. The base of the tooth shows longitudinal striations. The apex of the tooth is pointed. It is flat and compressed, bearing sharp blades on its longitudinal margins (Fig. 3 b-e). The form has been previously reported from the intertrappeans beds of Nagpur, Asifabad, Naskal, Kutch, Marepalli and Papro (Gayet et al., 1984; Prasad and Sahni, 1987;

Bajpai et al., 1990; Prasad and Khajuria, 1990; Prasad and Singh, 1991; Shome and Chandel, 2013). The second taxon of fish is *Phareodus* indet. (Family: Osteoglossidae) represented by teeth and scales. The teeth are conical, slightly curved with distinct apical part. The tooth surface is smooth, lacking longitudinal striations. The apex is pointed, having a translucent cap. The marginal flange is absent and no flattening of the tooth is observed (Fig. 3 a). The recovered *Phareodus* scales are rhombic-quadrangular in outline. The external surface of the scale is ornamented by isolated fine and coarse tubercles. The inner surface of the scale is in the form of a concave basin, the borders of which are raised to form a rim (Fig. 3 f-h). The genus *Phareodus* has been reported from the intertrappean beds of Nagpur, Naskal, Asifabad, Jabalpur and Papro, (Gayet et al., 1984; Prasad, 1987; Prasad and Sahni, 1987; Prasad and Khajuria, 1990; Sahni and Tripathi, 1990; Prasad and Singh, 1991; Shome and Chandel, 2013).

Charophytes

Two types of gyrogonites of charophytes are identified from the macerated sample of Uthawali, cf. *Platychara perlata* and *Microchara* sp. (Family: Characeae). The gyrogonites assigned to cf. *Platychara perlata* are sub-globular to sub-spherical in shape, wider than long. Both apex and base are round. 6-8 smooth lime spirals are present. Lime spiral is constricted, with gyrogonite apex swollen and convex forming a distinct apical rosette (Fig. 2 I). *P. perlata* was first reported from the intertrappeans beds of Nagpur followed by discovery from Rangapur, Kutch, Gurumatkal and Dhar (Bhatia and Mannikeri, 1976; Bhatia et al., 1990c; Srinivasan, 1994; Srinivasan et al., 1994; Khosla, 2014; Kapur et al., 2018). The second type of gyrogonites is ascribed to *Microchara* sp. that has ovoid shape, a rounded summit and a progressively tapering base. In lateral view 9-10 convolutions are visible on the gyrogonite. The length of the gyrogonite is longer than wide (Fig. 2 k). Charophytes with similar morphology are known to occur in the intertrappean beds of Nagpur (Bhatia and Rana, 1984) and Gurumatkal (Srinivasan et al., 1994) and were assigned to *Microchara* sp.

Palaeoenvironmental significance

The biotic assemblage at Uthawali is represented by invertebrates: ostracods and molluscs, vertebrates: fishes, and algae: charophyte. In order of decreasing abundance the following ostracods species are present in the study area, *Paracypretta jonesi* (39%), *Frambocythere tumiensis anjarensis* (20%), *Cypridopsis hyperectyphos* (20%), *Gomphocythere paucisulcatus* (11%), and *Gomphocythere strangulata* (10%). Among these, *Frambocythere tumiensis anjarensis, Gomphocythere paucisulcatus* and *G. strangulata* are known to live in non-marine, low energy aquatic environment. The forms are poor swimmers and or epibenthonic walkers/crawlers. On the other hand, *Paracypretta jonesi* and *Cypridopsis hyperectyphos* are good swimmers that prefer to live in permanent ponds and lakes (Whatley and Bajpai, 2005; Sharma and Khosla, 2009; Khosla et al., 2011; Khosla, 2015).Thus the ostracod assemblage of present study represents two different ecologies i.e. of swimmers and non-swimmers. The active swimmers slightly dominate the assemblage favouring presence of permanent water body in the study area. The greater percentage of ostracod carapaces as compared to valves further suggests presence of a low energy depositional environment (Cronin, 2015). The preferred habitat of the recovered ostracod assemblage is suggestive of a freshwater palustrine/lacustrine environment of deposition. The freshwater palustrine/lacustrine habitat is additionally attested by the occurrence of the gastropod, *Lymnaea,* charophyte *Platychara* and fishes *Lepisosteus* and *Phareodus.* The heavy ornamentation such as that in the carapace of *Frambocythere* and *Zonocypris* indicate that this pond or lake water was alkaline, an observation further corroborated by the presence of charophytes in the biotic collection. The

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean
locality, Uthawali, District Dhar, Madhya Pradesh, Central India

existence of charophyte also advocates prevalence of shallow water conditions whereas the molluscan taxa, *Valvata* is indicative of a sandy or silty substrate.

Conclusions

A micro faunal and floral assemblage consisting of ostracods, molluscs, fishes and charophytes has been recorded from a new intertrappean locality Uthawali, situated in District Dhar, Madhya Pradesh, Central India. The discovery of new intertrappean locality from Malwa region which otherwise is said to be poorly fossilferous show that the scarcity of fossils from here is an artifact of sampling bias rather than the preservational bias, which can further be realized by continual bulkscreen washing techniques. Since the biotic assemblage similar to the one recovered from Uthawali has been documented from other Maastrichtian intertrappean and infratrappean deposits of peninsular India, a similar age is argued for the intertrappean deposits of Uthawali. Based upon the overall fossil assemblage recovered from Uthawali consisting of *Paracypretta jonesi, Frambocythere tumiensis anjarensis, Gomphocythere paucisulcatus, Gomphocythere strangulata, Cypridopsis hyperectyphos* (ostracods), *Physa prinsepii, Valvata minima, Paludina wapsharei,* cf. *Paludina normalis,* cf. *Paludina subcylindracea, Lymnaea* sp. (molluscs), *Lepisosteus indicus, Phareodus* indet. (fishes) cf. *Platychara perlata, Microchara* sp. (charophytes), it is interpreted that the intertrappean beds at Uthawali were deposited in a freshwater pond or lake that was connected to a low energy stream.

Acknowledgements

Explanation of Figures

Fig. 1 a Locality map of the study area showing fossil yielding site, 1 b Lithocolumn of the Uthawali intertrappean section.

Fig. 2 SEM microphotographs of fossils recovered from Uthawali intertrappean section, a-j ostracod carapace, a-b *Gomphocythere paucisulcatus,* a, dorsal view, b, lateral view; c *Gomphocythere strangulata* in dorsal view; d-f *Frambocythere tumiensis anjarensis,* d, female carapace dorsal view, e, male carapace dorsal view, f, male carapace lateral view; g-h *Paracypretta jonesi,* g, lateral view, h, dorsal view; i-j *Cypridopsis hyperectyphos,* i, dorsal view, j, lateral view; k-l charophyte gyrogonite, k, *Microchara* sp. in lateral view, l, cf. *Platychara perlata* in lateral view. Scale bar for a-c, i-l, g-h is 100 µm, for d-f is 20 µm.

Fig. 3 Microphotographs of fossils recovered from Uthawali intertrappean section, a, f-h *Phareodus* indet., a, tooth in lateral view, f-h scales, f, h, scales in internal view, g, scale in external view; b-e *Lepisosteus indicus,* b-d, teeth in posterior view, e, tooth in lateral view; i-j *Valvata minima* in apical view; k cf. *Paludina normalis* in adapertural view; l *Paludina wapsharei* in apertural view; m *Lymnaea* sp. in apertural view; n cf. *Paludina subcylindracea* in adapertural view; o, *Physa prinsepii* in apertural view. Scale bar equals 500 µm for a-o.
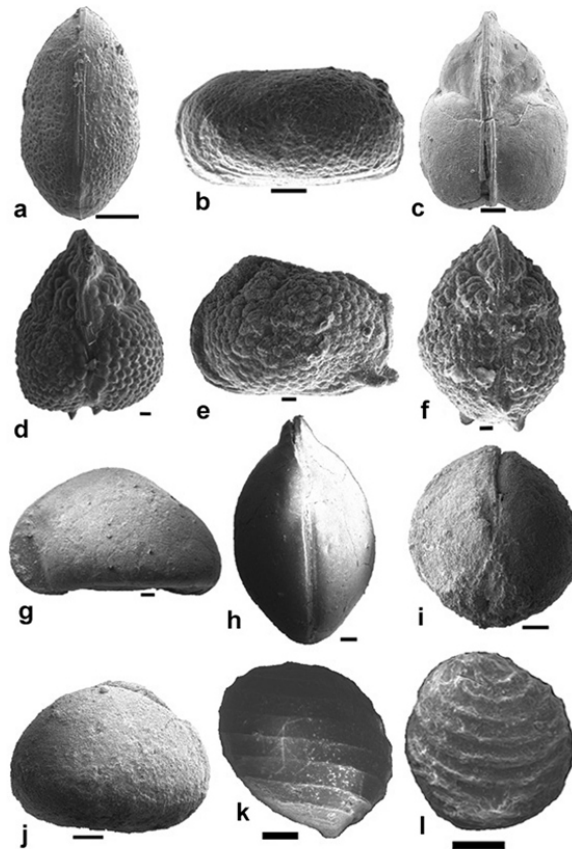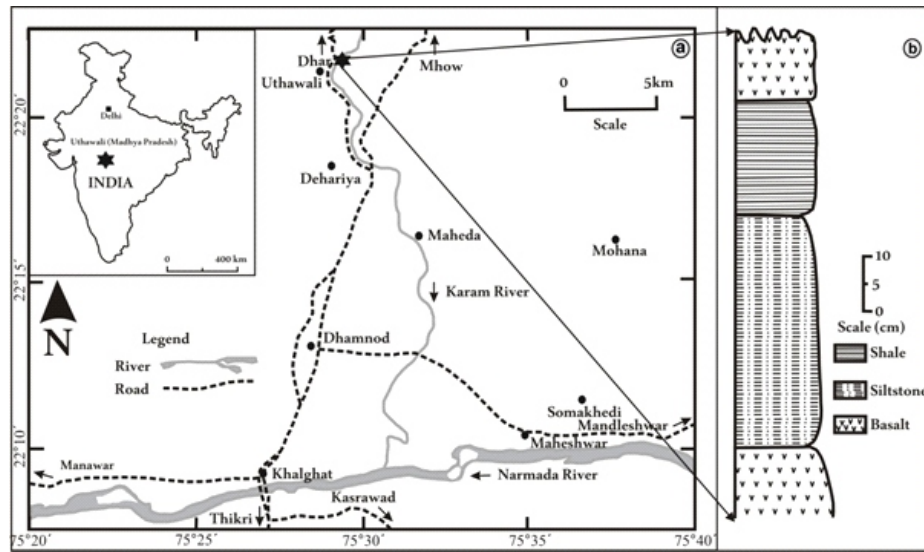
Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean locality, Uthawali, District Dhar, Madhya Pradesh, Central India
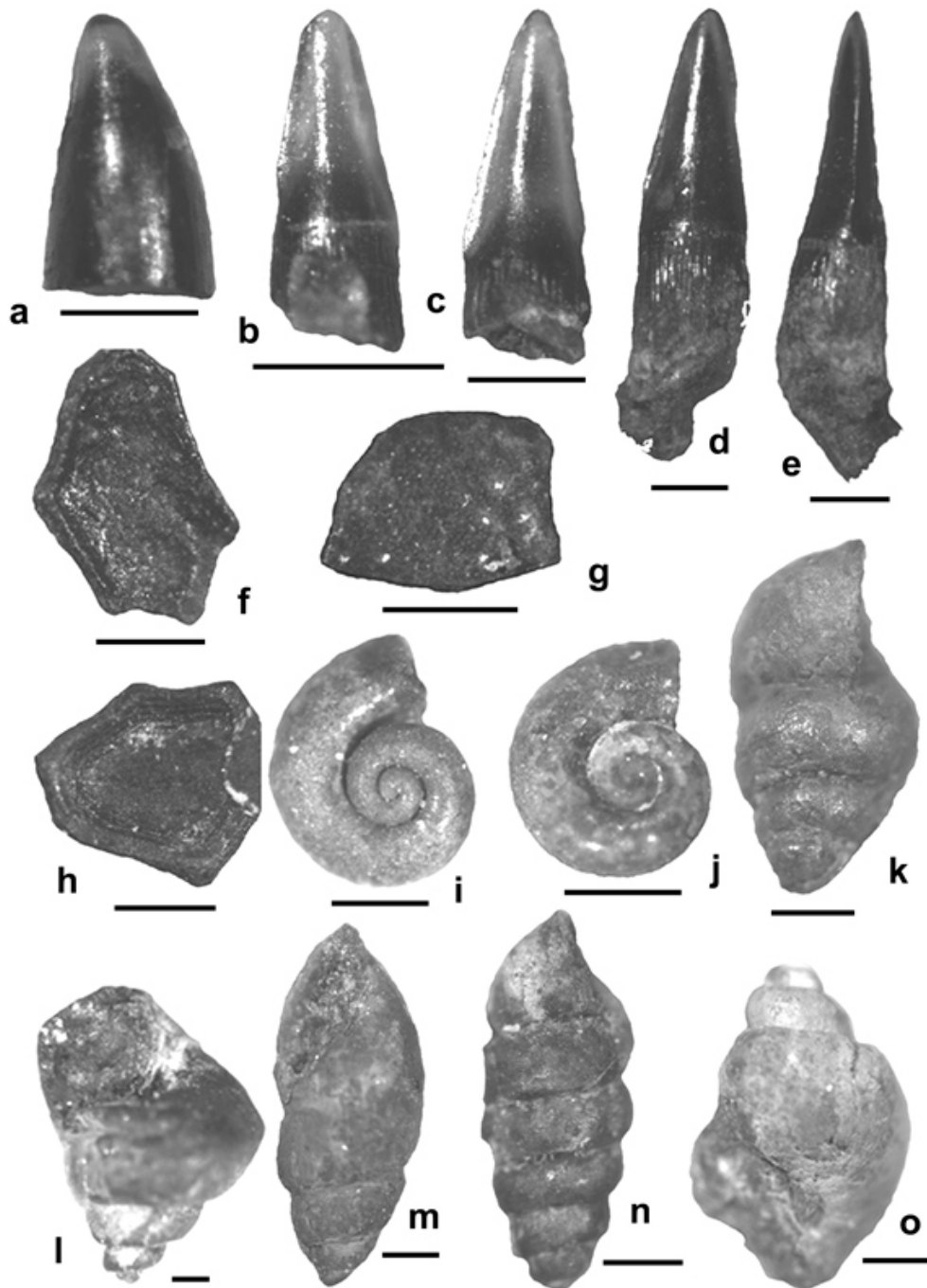
References

Bajpai, S., Mohabey, D. M., Kapur, V, V. and Sharma, R. (2004). A Late Cretaceous (Maastrichtian) freshwater Ostracoda fauna from Deccan Inter-trap sediments from Phulsagar, Mandla District, Madhya Pradesh. Gondwana Geological Magazine, 19(2): 147-157.

Bajpai, S., Sahni, A., Jolly, A. and Srinivasan, S. (1990). Kachchh intertrappean biotas: affinities and correlation. In: Sahni, A. and Jolly, A. (eds.), Cretaceous Event Stratigraphy and the Correlation of the Indian Non-marine Strata, Proceedings, Seminar cum Workshop IGCP 216 and 245, Chandigarh, 101-105.

Bajpai, S. and Whatley, R. (2001). Late Cretaceous non-marine ostracods from the Deccan Intertrappean beds, Kora (Western Kachchh, India). Revista Española de Micropaléontologia, 33: 91-111.

Bhandari, A. and Colin, J. P. (1999). Ostracode limniques des sédiments Inter-trappeans (Maastrichtien Terminal Paléocene Basal) de la region d'Anjar (Kachchh, État. De Gujarat), Inde: Systémtique, Paléoécologie et Affinités Paléobiogéographiques. Revue de Micropaléontologie, 42: 3-20.

Bhatia, S.B. and Mannikeri, M.S. (1976). Some Charophyta from the Deccan intertrappean beds near Nagpur, Central India. Geophytology, 6: 75-81.

Bhatia, S. B., Prasad, G.V.R. and Rana, R.S. (1990a). Deccan volcanism, a late Cretaceous event; conclusive evidence of ostracodes. In: Sahni, A. and Jolly, A. (Eds.), Cretaceous Event Stratigraphy and the Correlation of the Indian Non-Marine Strata, Contributions from the Seminar cum Workshop IGCP 216 & 245: 47-49, Panjab University, Chandigarh.

Bhatia, S.B., Prasad, G.V.R. and Rana, R.S. (1996). Maastrichtian nonmarine ostracodes from Peninsular India: palaeobiogeographic and age implications. In, Sahni, A. (ed.), Cretaceous Stratigraphy and Palaeoenvironments. Memoir Geological Society of India, 37: 297-311.

Bhatia, S.B. and Rana, R.S. (1984). Palaeogeographic implications of the Charophyta and Ostracoda of the Intertrappean beds of Peninsular India. Memoires de la Société géologique de France, Nouvelle Serie, 147: 29-35.

Bhatia, S.B., Riveline, J. and Rana, R.S. (1990c). Charophyta from the Deccan intertrappean beds near Rangapur, Andhra Pradesh, India. Palaeobotanist, 37(3): 316-323.

Bhatia, S.B., Srinivasan, S., Bajpai, S. and Jolly, A. (1990b). Microfossils from the Deccan intertrappean bed at Mamoni, District Kota, Rajasthan; additional taxa and age implication. In: Sahni, A. and Jolly, A. (eds.), Cretaceous Event Stratigraphy and the Correlation of the Indian Non-Marine Strata, Contributions from the Seminar cum Workshop IGCP 216 & 245: 118-119, Panjab University, Chandigarh.

Blanford, W. T. (1869). On the geology of Tapti and Lower Narmada valley and some adjoining

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean
locality, Uthawali, District Dhar, Madhya Pradesh, Central India

districts. Memoirs of the Geological Survey of India, 6: 163-221.

Bose, P.N. (1884). Geology of the lower Narmada valley between Nimawar and Kawant. Memoirs of the Geological Survey of India, 21: 1-72.

Chenet, A.L., Quidelleur, X., Fluteau, F., Courtillot, V. and Bajpai, S. (2007). 40K/40Ar dating of the Main Deccan large igneous province: further evidence of KTB age and short duration. Earth and Planetary Science Letters, 263: 1-15

Cronin, T.M. (2015). Ostracods and sea-level. In: Shennan I, Long AJ, Horton BP, editors. Handbook of sea-level research. Chichester, United Kingdom: John Wiley & Sons; pp. 249-257.

Gayet, M., Rage, J.C. and Rana, R.S. (1984). Nouvelles ichthyo faune et herpotofauna de Gitti Khadan plus ancient gisement connu du Deccan (Cretace/Palaeocene) a microvertebres. Implications palaeo-geographiques. Memoires de la Société géologique de France, Nouvelle Serie, 147, 55-65.

Guha, A.K. (1976). Lithostratigraphic classification of Bagh Group (Beds), Madhya Pradesh, pp 66-76. In Proceedings of the VI Indian Colloquium on Micropalaeontology and Stratigraphy, Department of Geology, Banaras Hindu University, Varanasi.

Jaitly, A. K. and Ajane, R. (2013). Comments on Placenti cerasmintoi (Vredenburg, 1906) from the Bagh Beds (Late Cretaceous), Central India with special reference to Turonian Nodular Limestone horizon. Journal of the Geological Society of India 81: 565-567.

Jay, A.E. and Widdowson, M. (2008). Stratigraphy, structure and volcanology of the SE Deccan continental flood basalt province: implications for eruptive extent and volumes. Journal of the Geological Society of London, 165(1): 177-188.

Kapur, V.V. and Khosla, A. (2018). Faunal elements from the Deccan volcano-sedimentary sequences of India: A reappraisal of biostratigraphic, palaeoecologic, and palaeobiogeographic aspects. Geological Journal, doi: 10.1002/gj.33-79

Kapur, V.V., Khosla, A. and Tiwari, N. (2018). Paleoenvironmental and paleobiogeographical implications of the microfossil assemblage from the Late Cretaceous intertrappean beds of the Manawar area, District Dhar, Madhya Pradesh, Central India. Historical Biology, 2018: 1-16.

Keller, G., Adatte, T., Bhowmick, P.K., Upadhyay, H., Dave, A., Reddy, A.N. and Jaiprakash, B. C. (2012). Nature and timing of extinctions in Cretaceous-Tertiary planktic foraminifera preserved in Deccan intertrappean sediments of the Krishna Godavari Basin, India. Earth and Planetary Science Letters, 341: 211-221.

Khosla A. (2014). Upper Cretaceous (Maastrichtian) charophyte gyrogonites from the Lameta Formation of Jabalpur, Central India: palaeobiogeographic and palaeoecological implications. Acta Geologica Polonica, 64(3): 311-323.

Khosla A. (2015). Palaeoenvironmental, palaeoecological and palaeobiogeographical implications of mixed fresh water and brackish marine assemblages from the Cretaceous-Palaeogene Deccan intertrappean beds at Jhilmili, Chhindwara District, central India. Revista Mexicana de Ciencias Geologicas, 32(2): 344-357.

Khosla A., Chin K., Alimohammadin H. and Dutta D. (2015). Ostracods, plant tissues, and other inclusions in coprolites from the Late Cretaceous Lameta Formation at Pisdura, India: Taphonomical and palaeoecological implications. Palaeogeography, Palaeoclimatology and Palaeoecology, 418: 90-100.

Khosla, A., Sahni, A. (2000). Late Cretaceous (Maastrichtian) ostracodes from the Lameta Formation, Jabalpur Cantonment area, Madhya Pradesh, India. Journal of the Palaeontological Society of India, 45: 57-78.

Khosla, A. and Sahni, A. (2003). Biodiversity during the Deccan volcanic eruptive episode, Journal of Asian Earth Sciences, 21 (8): 895-908.

Khosla, S.C. and Nagori, M.L. (2005). A restudy of ostracod fauna from the Inter-trappean beds of Anjar, Kachchh District, Gujarat. Journal of the Geological Society of India, 66: 573-580.

Khosla, S.C. and Nagori, M.L. (2007a). Ostracoda from the Intertrappean beds of Mohgaon-Haveli, Chhindwara District, Madhya Pradesh. Journal of the Geological Society of India, 69: 209-221.

Khosla, S.C. and Nagori, M.L. (2007b). A revision of the Ostracoda from the Inter-trappean beds of Takli, Nagpur District, Maharashtra. Journal of the Palaeontological Society of India, 52: 1-15.

Khosla, S.C., Nagori, M.L., Jakhar, S.R. and Rathore, A.S. (2009). Mixed marine, brackish water and nonmarine microfaunal association in the Intertrappean beds (Early Palaeocene) of Jhilmili, Chhindwara District, Madhya Pradesh. Journal of the Geological Society of India, 73: 724-732.

Khosla, S.C., Nagori, M.L., Jakhar, S.R. and Rathore, A.S. (2010). Stratigraphical and palaeoecological implications of the Late Cretaceous ostracods from the Lameta Formation of Pisdura, Chandrapur District, Maharashtra, India. Gondwana Geological Magazine, 25: 115-124.

Khosla, S.C., Nagori, M.L., Jakhar, S.R. and Rathore, A.S. (2011a). Early Danian lacustrine brackish water Ostracoda from the Deccan Intertrappean beds near Jhilmili, Chhindwara District, Madhya Pradesh, India. Micropaleontology, 57: 223-245.

Khosla, S.C., Nagori, M.L. and Mohabey, D. M. (2005). Effect of Deccan Volcanism on non marine Late Cretaceous Ostracode: a Case study from Lameta formation of Dongargaon Area (Nand-Dongargaon Basin), Chandrapur district, Maharashtra. Gondwana Geological Magazine, 8: 133-146.

Khosla, S.C., Rathore, A.S., Nagori, M.L. and Jakhar, S.R. (2011b). Non-marine Ostracoda from the Lameta Formation (Maastrichtian) of Jabalpur, Madhya Pradesh and Nand- Dongargaon

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean
locality, Uthawali, District Dhar, Madhya Pradesh, Central India

Basin, Maharashtra, India: their correlation, age and taxonomy. Revista Española de Micropaleontología, 43: 209-260.

Khosla A, Verma O. (2015). Paleobiota from the Deccan volcano-sedimentary sequences of India: paleoenvironments, age and paleobiogeographic implications. Historical Biology 27: 898-914.

Prasad, G.V.R. (2012). Vertebrate biodiversity of the Deccan Volcanic Province of India. A comprehensive review. Bulletin Geological Society of France, 183: 597-610.

Prasad G.V.R. and Khajuria C.K. (1990). A record of microvertebrate fauna from the intertrappean beds of Naskal. Andhra Pradesh. Journal of the Palaeontological Society of India, 35: 151-161.

Prasad, G.V.R. and Sahni, A. (1987). Coastal-plain microvertebrate assemblage from the terminal Cretaceous of Asifabad, peninsular India. Journal of the Palaeontological Society of India, 32: 5-19.

Prasad, G.V.R. and Sahni, A. (2014). Vertebrate fauna from the Deccan volcanic province: Response to volcanic activity. In: Keller, G. and Kerr, A.C. (eds.), Volcanism, Impacts, and Mass Extinctions: Causes and Effects, Geological Society of America,Special Paper 505, pp 193-211, Geological Society of America, Boulder, Co.

Prasad, G.V.R. and Singh, V. (1991). Microvertebrates from the infra-trappean beds of Rangareddi District, Andhra Pradesh and their biostratigraphic significance. Bulletin Indian Geological Association, 24: 1-20.

Rathore, A.S., Grover, P., Verma, V., Lourembam, R.S. and Prasad, G.V.R. (2017). Late Cretaceous (Maastrichtian) non-marine ostracod fauna from Khar, a new intertrappean locality, Khargaon district, Madhya Pradesh, India. Paleontological research, 21(3): 215-229.

Rode, K.P. and Chiplonkar, G. W. (1935). A contribution to the stratigraphy of Bagh Beds. Current Science, 4(5): 322-323.

Roy Chowdhary, M. and Sastri, V.V. (1962). On revised classification of the Cretaceous and associated rocks of the Man river section of Lower Narbada Valley. Records of the Geological Survey of India, 91: 283-304.

Sahni, A. (1984). CretaceousPalaeocene terrestrial faunas of India: lack of faunal endemismduring drifting of the Indian plate. Science, 226: 441-443.

Sahni, A., Khosla, A. (1994). A Maastrichtian ostracode assemblage (Lameta Formation) from Jabalpur Cantonment, Madhya Pradesh, India. Current Science, 67: 456-460.

Sahni, A., Khosla, A., Sahni, N. (1999). Fossil seeds from the Lameta Formation (Late Cretaceous), Jabalpur, India. Journal of the Palaeontological Society of India, 44: 15-23.

Sahni, A., Tandon, S.K., Jolly, A., Bajpai, S., Sood, A., and Srinivasan, S. (1994). Upper Cretaceous dinosaur eggs and nesting sites from the Deccan volcano-sedimentary province of peninsular India. In: Carpenter, K., Hirsch, K.F. and Horner, J.R. (eds.), Dinosaur eggs and babies. Cambridge University Press, 204-226.

Sahni, A. and Tripathi, A. (1990). Age implications of the Jabalpur Lameta Formation and intertrappean biotas. In: Sahni, A. and Jolly, A. (eds.), Cretaceous event stratigraphy and the correlation of the Indian nonmarine strata. A seminar cum workshop IGCP 216 and 245. Chandigarh: Panjab University pp. 35-37.

Sahni, B. (1934). The Deccan Traps: Are they Cretaceous or Tertiary? Current Science, 3(4): 134-136.

Schoene, B., Samperton, K.M., Eddy, M. P., Keller, G., Adatte, T., Bowring, S.A. and Gertsch, B. (2015). UPb geochronology of the Deccan Traps and relation to the end Cretaceous mass extinction. Science, 347: 182-184.

Sharma, R., Bajpai, S. and Singh, M.P. (2008). Freshwater Ostracoda from the (?) Palaeocene- age Deccan Intertrappean beds of Lalitpur (Uttar Pradesh), India. Journal of the Palaeontological Society of India, 53: 177-183.

Sharma, R. and Khosla, A. (2009). Early Palaeocene Ostracoda from the Cretaceous-Tertiary (KT) Deccan Intertrappean sequence at Jhilmili, District Chhindwara, Central India. Journal of the Palaeontological Society of India, 54: 197-208.

Shome, S. and Chandel, R. S. (2013). Palaeontological studies of Papro Formation (infratrappean) of Lalitpur District, Uttar Pradesh-Its age, correlation and palaeoecology. Indian Journal of Geosciences, 67(1): 49-62.

Sowerby J. (1840). Organic remains collected by Mr. Malcolmson. In: Malcolmson JG, editor, On the fossils of the eastern portion of the Great Basaltic District. Transaction of the Geological Society of London 5, pp. 532-575.

Srinivasan, S., Bajpai, S. and Sahni, A. (1994). Charophytes from Deccan intertrappean beds of peninsular India: implications for age and correlation of Deccan volcanics. Geobios, 27, 559-571.

Tripathi, S.C. (2006). Geology and evolution of the Cretaceous infra-trappean basins of lower Narmada valley, western India. Journal of the Geological Society of India, 67: 459-468.

Udhoji, S.G. and Mohabey, D.M. (1996). Ostracoda and Charophyta from the Late Cretaceous Lameta Formation of Maharashtra: Paleobiogeographic and age implication. In: Pandey, J., Azmi, R.J., Bhandari, A. and Dave, A. (eds.), Contributions to XV Indian Colloquium on Micropalaeontology and Stratigraphy, pp.409-419, Dehradun.

Whatley, R. and Bajpai, S. (2000). A new fauna of Late Cretaceous non-marine Ostracoda from the Deccan Intertrappean beds of Lakshmipur, Kachchh (Kutch) District, Gujarat, Western India.

Late Cretaceous (Maastrichtian) faunal assemblage from a new intertrappean locality, Uthawali, District Dhar, Madhya Pradesh, Central India

Revista Española de Micropaleontología, 32: 385-409.

Whatley, R. and Bajpai, S. (2005). Some aspects of the palaeoecology and distribution of non-marine Ostracoda from Upper Cretaceous Intertrappean deposits and the Lameta Formation of Peninsular India. Journal of the Palaeontological Society of India, 50(2): 61-76.

Whatley, R., Bajpai, S. and Srinivasan, S. (2002a).Upper Cretaceous nonmarine Ostracoda from Intertrappean horizons in Gulbarga District, Karnataka State, South India. Revista Española de Micropaleontología, 34: 163-186.

Whatley, R., Bajpai, S. and Srinivasan, S. (2002b). Upper Cretaceous intertrappean non-marine Ostracoda from Mohagaonkala (Mohgaon-Kalan), Chhindwara District, Madhya Pradesh State, Central India. Journal of Micropalaeontology, 21: 105-114.

Whatley, R., Bajpai, S. and Whittaker, J. E. (2003). Freshwater Ostracoda from the Upper Cretaceous Intertrappean beds at Mamoni (Kota District), southeastern Rajasthan. Revista Española de Micropaleontología, 35: 75-86.

Woodward, A.S. (1908). On some fish remains from the Lameta beds at Dongargaon, Central Province. Memoir Geological Survey of India, Palaeontologia Indica (new ser), 3: 1- 6.

SOCIAL SCIENCES

India and China in South Asia

Reetika Sharma*

ABSTRACT

India and China both belong to a single Trans-Himalayan region. India and China rank among the world's largest developing nations, most populous states, and the fastest growing economies. Both the entities are the foremost rising powers in Asia. The 21st century is also regarded as, as it were, the age of the rise of China and emerging India. Both the countries have experienced a sustained rapid and economic growth since early 1980s and 1990s respectively. The Post Cold War scenario was marked by political instability in India. The end of the Cold War in the early 1990s has had a dual impact on international relations. Even before the establishment of any kind of political relations, both the countries enjoyed relations. Though the major contact between the ancient civilizations was initiated after the spread of Buddhism in China. Historians believe that there are some kind of relation or the other between the two entities for centuries. India and China began their journey in the post-cold war world with more vigour, mutual trust and confidence. Mutual perception and attitude of constructive cooperation between the countries led to enhance bilateral exchanges in political, military, economic, cultural and many other fields to further the confidences. Building the measures and to resolve the long pending bilateral problem, both the countries have become world-class economies. This paper enlightens the main issues between India and China in South Asia and what attempts should be taken by these two entities to resolve the issues. Further this paper evaluates the recent developments in Indian and Chinese foreign policies with respect to the South Asian region. Finally the purpose of the paper is to explore the present status of conflicts, disputes and cooperation between India and China.

Keywords: India, China, South Asia, Conflicts, Cooperation

Introduction

India got independence from Britishers in 1947 after colonization of more than 200 years. Whereas communist revolution took place in China, in October 1949 and after that immediately in December 1949, India extended its recognition to Communist government. Both the countries boarded upon their independent course of development instantaneously. The independent status of India was welcomed by almost all the countries of the international community. The mainstream of international community on the other hand, was not in favour of, the communist status of China. But on the other hand, the Eastern Bloc which was led by Soviet Union, China received support from them.(Appadorai,1995) However, India extended its full support to the new Chinese establishment by recognizing it. This was mirrored in the wide spread slogan that remained intoned by Indian children in the 1950s: Hindi-Chini bhai-bhai. Both entities are the most populous countries in the world and day by day they are the most firmly developing foremost economies. Though their mutual bond has increased their significance due to the development in diplomatic and economic relation. Historically India and China have had relations for more than 2,000 years.

Nehru believes that China the largest state of Asia with a rich and ancient civilization would share its conviction to Asian nationalism. He presumed that a communist China would have a

---

* Research Scholar, Department of Political Science, University of Jammu, Jammu, India

nationwide and Asian identity separate from that of the Soviet Union. Nehru was avidly committed to building vision of the role of India and China in the post-colonial world. The three foremost essentials of Nehru's China strategy were:

⏩ To establish friendly relations with China.

⏩ To extend cooperation in each other's development work.

⏩ To maintain peace and stability in Asia and check the spread of cold war in the continent.

The overall atmosphere of amenability and bond was such that most Indians could not imagine the initiation of Chinese armed violence on their relative unguarded northeast frontier. The 1962 misadventure, it caused a dent in the national psyche of India that lurks uncomfortably in the background even today. The boundary problem, Tibet Factor which was interlinked and ran parallel during their course of bilateral interactions from 1950 to 1962. Thus India and China adopted a contrasting approach towards the boundary.(Johnston and Ross,2006) The Indian approach was that there has always existed a well-defined customary and traditional boundary with China. The Sino-Indian boundary conflict arose primarily because of the two concepts- the Chinese one of strategic borders, and India's historic borders could not be reconciled.

The period 1961-1975 is marked by complete breakdown of relationship between India and China. Both India and China started looking at each other with suspicion and mistrust. The slogan "Hindi-Chini Bhai Bhai" was no more in the air and it was dead with the war. Both of them lost faith in each other. During the period 1962-1976, the relations were at their worst. There was a freezing of diplomatic relations after the 1962 conflagration, which only thawed in 1976 when relations were tentatively restored. At last, Ambassadorial level relationship was restored in 1976. From 1976 to the present, the most vexing issue has been the demarcation and resolution of the boundary line denoting the border between the two countries. To further complicate the issue, while there appears to be a tactic understanding of mutual respecting a notional Line of Actual Control (LAC) between the two countries, there has been little achieved in terms of actually defining this LAC on the ground. Since the 1976 restoration of diplomatic ties, major high-level exchange visits between the two countries have taken place in 1988, 1993, 1996, 2003, 2005…… and so on. This impressive succession of high-level diplomatic and strategic meetings and negotiations over the past few decades might suggest that serious headway has been made in resolving some of these core issues.(Jain and Yan, 2011)

China and India-Pakistan Wars of 1965 and 1971

China cultivated friendly relations with Pakistan. China extended not only military, material and financial support to Pakistan but extended its moral support also during its war with India in year 1965 and 1971. In the India-Pakistan war of 1965, China had extended its full support to Pakistan. China supported the Pakistani Government and people in their just struggle for safeguarding national independence and state sovereignty.

China's interest in South Asia

China has systematically bolstered its influence in Southern Asia through political, economic and military assistance to the smaller states of the region. It has cultivated brinkmanship actors like Pakistan and Myanmar to challenge India's predominant position. In recent years, China's military is becoming more and more insistent on foreign policy matters realizing the communist Party's dependence on them, any act of aggression from them would have a catastrophic impact in the continent. In the past, China's armed ventures took place when China was not strong militarily and from economic viewpoint. Head on confrontation between China and India also took place in the form

of former's invasion of India's Northeast borders. Such instances caused massive damages on both sides leading to economic derailment then. On the Contrary, both countries can be more prosperous if they compete peacefully for their rise and development in national and world economies.

Relationship between India and China has significant impact over the shaping of regional politics in South Asia. China played economic and military card to enhance its area of influence in South Asia. China made repeated attempts at establishing political, military and economic relationships in the capitals ringing periphery and regional capitals have long sought to play the "China card" to balance against Indian power.(Garver,1992)

Yet attempts made in the past were met with prohibitive costs from Delhi and the dalliances proved short lived. It provided huge economic aid to Pakistan, Nepal, Sri Lanka, and Bangladesh and launched joint ventures for the development of these undeveloped countries. Since 2005 China has made substantial gains in Nepal, Sri Lanka and Maldives effectively eroding India's long standing monopoly of influence. China has seized on opportunities generated by political instability and civil conflict to establish a foothold. In all three cases, the U.S. and India attempted to sanction or isolate those regimes in response to democracy violations or human rights abuses. But China eagerly filled the void with military or diplomatic assistance and billions of dollars in investments and loans.

South Asia stands today at the frontline of a major westward expansion of Chinese interests and influence, one embodied by China's ambitious One Belt One Road (OBOR) New Maritime Silk Road Initiative. As China's diplomatic footprints in South Asia has grown, regional politics have become increasingly bifurcated

Moreover there are some examples that disclose the emphatic approach of China such as its support to Sri-Lankan government, reasserted its border dispute with India, intruded in Nepal's domestic politics. China firmly believes, and has instigated to persuade her society that it has now come to attaining a near super-power status. But the method to some extent is diverse. China wants all Asian countries, including South Asian ones, to support China in her bid to make the Western countries and the US a target, for trying to contain the Asian rise.

China's policy towards South Asia reveals the following contents:-

➤ China desires to see South Asia as a region that would be free from the influence of external hegemonic powers like the U.S. which belonging to the third category of states opposes China's rise to world power status and builds alliances in Asia to encircle China.

➤ China cultivates relations with the like-minded countries like Pakistan. In China's view, these like-minded countries, belonging to the periphery policy, are in favour of China's interest in building a regional order with multiple actors while recognizing China's importance as a strategic power and balancer.

➤ As far as economic content of its security thinking is concerned, China seeks to develop and maintain cooperation with South Asian countries in areas of trade, investment and technology.

China seeks to promote regional peace and stability by not only maintaining friendly relationship with the like-minded countries, but also by developing friendly and cooperative relations, through dialogue and consultation, with countries with which China has problematic relations. This policy particularly relates to India which belongs to the second category of states in China's periphery. The imperative for stability in South Asia also motivates China not be supportive of insurgency and its supporter in the region.

The most notable strategic option for India in regenerating the whole of South Asia will be to understand the real nature of conflict in the region. Conflict as well as disputes can be resolved in a more fruitful way through diplomatic channels if the nature of conflicts is put in proper perspective. The fundamental and unchanging nature of conflict in South Asia can be seen in the aims and objectives of South Asian nations relating to the very basis of their existence, growth and development. With this type of nature of conflicts in South Asia that countries like China and others have been able to exploit sentiments of the people in the region and weaknesses of political leadership in South Asia.

Impact of China in the South Asian Region

China constitutes one of India's most important relationships and plays a host of contradictory roles: economic competitor, potential military threat, increasingly important trading partner, occasional diplomatic collaborator, and ally and military supplier of rival Pakistan. Indian strategies are also concerned that Beijing's influence in Nepal, Bangladesh, Burma and Sri Lanka may be inimical to Indian interests. Nevertheless, Sino-Indian relations have steadily improved over the past decade. China's growing interest as well as its presence in South Asia is an important facet of the India-China relationship.

There is one school of thought in India which looks at it as a benign extension of influence, driven inexorably by its growing economic powers. It believes that the South Asian countries find it to their advantage to get engaged with a 'rising China', and in the days of globalisation, it is inevitable for a growing economy like that of China to penetrate into peripheral states.

However, there is another school of thought which believes that there is a larger strategic purpose behind such ingress. As Chinese power potential is growing, it is seeking to ensure that it exercises enough influence in the South Asian region to offset the advantages India has in its natural sphere of influence, to keep India busy maintaining its regional influence and contain its global ambitions.

Interestingly, the Chinese Ministry of Foreign Affairs does not use the term South Asia in its major foreign policy pronouncements. It treats all countries around its periphery (including India) as 'Asian Neighbours' and claims that it conducts its foreign policy towards them in the 'Asian spirit' of coexistence in harmony, good-neighbourly friendship, consultations and dialogue, respect for civilisation diversity, solidarity and mutual beneficial cooperation.(Assistant Foreign Minister Liu Zhenmin's statement, 2012) It lays emphasis on consolidating its relationship with its Asian neighbours through frequent high-level contacts, and believes in pushing forward regional cooperation and expanding exchanges and cooperation in the fields of trade, investment, infrastructure, finance, science and technology, culture and education to unprecedented width and depth. This, in a way, denotes China's aspirations as an emerging world power with bigger ambitions to make its mark on the world stage as the most pre-eminent power in Asia. As far as India is concerned, the Chinese foreign office states diplomatically that 'China expects to make joint efforts with India to continue to implement the consensus reached between leaders of both countries, maintain high-level exchanges, step up strategic mutual trust, deepen mutually beneficial cooperation in various fields, properly handle problems of the bilateral relations, support and learn from each other and promote the development of China-India strategic partnership of cooperation'.(Ibid, 2012) However, the fact remains that while China values its relationship with other important countries in Asia, like India and Japan, it treats them largely as regional powers.

China' impact on India in South Asia

India faces the regional economic challenge from China continuously as China is growing fast in its trade and investment and over shaded India by increasing its involvement in South Asia. India is continuously making an efforts to come over all the regional economic strategic of the China by developing its infrastructure and make use of its own manufacturing goods.

An analysis of China's Neighbourhood Policy and South Asia

If we compare South Asia and China from politico-cultural point of view, they are oceans apart. Mutually China and India will to come forward with a sturdy willpower, and dialogue meaningfully issue specific rather than provoking each other with in fructuous arguments, in order to make the 21st century as an Asian one.

Encirclement

India has been weary for years of China's hegemonistic attempts against India's growing influence. China is operating for this purpose through a campaign of "encirclement". The "encirclement of India theory" focuses on China's close relations with India's neighbours such as Pakistan, Myanmar and other nations in South Asia. This encirclement poses a major threat to India's development and security. China's actions come as no surprise to India, for they apparently follow the Kautilyan logic of international relations. (Kautilya) Chinese geopolitical influence or military presence stretching from Gwadar in Balochistan Province of Pakistan to the Coco Islands in Myanmar is especially worrisome from the Indian perspective as it gives rise to the possibility of a 'maritime encirclement of India'. China is also aiming at littoral countries of Indian Ocean to protect its SLOCs. China is having a long term futuristic assessment for engulfing India from all sides. Sea Lines of Communication is also being planned by China through connecting with littoral Indian Ocean countries such encirclement of India is having military, political, and economic dimensions for the expansion of China's power in the region. It is this type of strategy that is also known as "String of Pearls" Policy against India.

China's Security Compulsions

China's rivalry with India, during the Cold War the PRC-Indian relationship was tenuous. At different times both nations were allied with Soviets, and both focus on a series of economic programs to develop their respective infrastructure. While the two were never close, neither of the Aksai Chin area, through which it builds a strategic highway linking Tibet and Xinjiang autonomous regions.(Roy, 1998) India's primary security interest is in Arunachal Pradesh, the state bordering Tibet. Tibet has been the point of contention between India and China for a very long time. Both India and China consider Tibet vital of their national security. After the 1962 Sino-Indian border war, the relations between China and Indian improved, but never quite reached the high experienced in the 1950's. India claims it was the Chinese threat, not Pakistan that prompted it to develop a nuclear weapons capability and conduct tests in 1998.(Jha, 2011)

India - China Cooperation

In recent years competitive elements of the Sino - Indian relationship have out spaced the cooperative tract, bilateral relations have not been devoid of accomplishments. China India military-to-military engagements has maintained its modest course under Xi Jinpings and Modi. The two militaries begin cooperating only in 2007, when the Chinese and Indian Armies held their first ever joint exercise in Kunming, China. Again in 2013, 2014, 2015 joint Army exercises resumed both in China

and India. Again in 2016, a strategic effort was made with the active participation of Major General Y K Joshi, ADGMO of Indian Army and Major General Wang Haijiang of People's Liberation Army with the aim to familiarize both the armies with each others procedures in the back draw of counter terrorism environment. In 2017, due to Doklam issue in Sikkim, the joint military exercise could not take place. Further in 2018, the joint exercise was conducted after a gap of a year which includes with various discussions regarding anti-terrorism strategies, joint operations.

On the other side, Wuhan Summit took place with an object to undertake joint projects of India and China in three sectors that is health, education and food security in Afghanistan which is for the betterment and upliftment of the Afghans people, which further gives the path for joint Indo-Afghan connectivity project through Afghanistan connecting China with Iran in prospect.(Chinese Foreign Ministry Spokesman statement, 2019)

Prime Minister Narendra Modi's visit to China

Prime Minister Narendra Modi visited China from May 14-16 in 2015. The visit of Indian Prime Minister opened up an innovative episode in India-China relationship which was rich in symbolism and substance. Total 24 agreements were signed by both the sides, 26 MOU's related to business side and two joint statements, including one on climate change. Within the period of eight months India and China come up with over 50 outcome documents which reflects their close proximity and up-growing partnership relation between them. The formal visit of Prime Minister to China conveyed the message to International community regarding their cooperative relation between them. Both the counties assured to play a defining role in the 21st century in Asia and beyond also. India and China the two major poles in the Global architecture, agreed to corporate on the host of issues ranging from WTO, Climate Change and Terrorism to regional Organisations.

On the other hand, Prime Minster gestures towards China have been subtle. When Russia held a major military parade to celebrate its victory in world war II in May 2015, India sent President Mr. Pranab Mukherjee and military delegations to participate. But when China hosted a rare and high profile Military Parade months later for the same purpose, India sent a Deputy External Affairs Minster, and no Military Contingent. This only scratches the surface; however, if China's Westward push into the South Asian Sub-continent and the India Ocean represents one of Xi Jinping's signature foreign policy initiatives, Prime Ministers Modi signatures Foreign Policy initiatives have arguably been tailored as a direct response.

However, there are some other recent high level visits also, Home Minister of the Govt. of India, Rajnath Singh, visited China on Nov. 2015 and met Minister of Public Security of China. On the other hand, Smt. Sushma Swaraj External Affairs Minister of the Govt. of India paid an official visit to China in Feb. 2015, and had formal talks with Foreigner Minister and Minister of the International Department of China.

The Foreign Ministers have been meeting regularly. More than thirty dialogue mechanisms have been established between India and China at various levels including bilateral political, economic issues as well as discussions on international and regional issues.

China's emergence as a major power, with widespread economic and security interest, is a reality, which has to be accepted. An attempt to isolate or contain China is unlikely to succeed. In recent years India-China relations have acquired maturity and substance. A "multi track" re-approachment is likely to yield the best results. It is in the mutual interest of both countries to work towards building a strong prosperous, self-confident and self-reliant Asia. The international community sees India in various shades; some feel India is a balanced democratic power on the verge

of breaking into the big league, economically and military. The world community, as a whole, does not object to its rise and some feel India has the right to be a regional power. But there are some who believe that India is allowing its geo-strategic advantage in the region. Brahma Chellaney, a Professor of strategic studies at the Centre for policy Research in New Delhi says, "Without power, India will continue to punch far below its weight and be mocked at by critics."(Chellaney,2010) Today India is an international adolescent, a country of outsize ambition and capabilities. Therefore, there is and to initiate the debate on the need for credible power projection capability, in terms of both hard and soft power.

These relation between China and India also highlight the race between them to dominate South Asian countries. One major reason behind several conflicts in South Asia is China's military, economic and political efforts to gain leverage vis-à-vis India. India on the one hand is an integral geo political part of Indian Sub-continent of South Asia. China on the other hand an extra regional power as immediate neighbour of South Asia.

References

Appadorai A(1995): Nehru's China Policy in Perspective China, Japan and India's Foreign Policy, Grover Publications: New Delhi, pp.54.

Johnston Alastair and Ross Robert(2006): New directions in the Study of China's Foreign Policy, (Ed), Stanford University Press: Stanford, pp. 86-90.

Garver W John(1992), "China and South Asia", The Annals of the American Academy of Political and Social Science, Vol. 519, pp. 67-85.

Jain Shirish and Yan Shufen(2011), "India, China: Brothers, Brothers ", Journal of International Affairs, Vol. 64, No. 2, pp. 259-267.

Assistant Foreign Minister Liu Zhenmin, statement(9 January 2012), to the media about Asian situation and China's diplomatic engagement with neighbouring countries, available at http://www.fmprc.gov.cn/eng/wjb/zygy/gyhd/t894938.htm.

Ibid(2012)

Kautilya was one of the India's oldest political philosopher, presents a "realist structural view" of the international structure, encouraging leaders to maintain power through subjugation of structural. One of the basic tenets of Kautilya, is that a nations neighbour is its natural enemy, likewise, the neighbour of one's enemy should be made one's ally.

Roy Denny(1998): China's Foreign Relations, Rowman and Littlefield Publishers, INC: New York, pp172.

Jha Shankar Prem(2011), "Why India went Nuclear", Columbia International Affairs, Vol. 2, pp. 258-260.

Chinese Foreign Ministry spokesman Lu Kang, statement(4 January 2019), to the media about Sino-India Cooperation on a fast track after Wuhan Summit, China, available at https://economictimes.indiatimes.com.

Chellaney Brahma(20 April 2010), "One Missile to rule them all" available at http://www.livemint.com

Demand for New States in India: A Case Study of Statehood Demand for Gorkhaland

Satish Kumar Rana*

ABSTRACT

Since Independence demand for new states has acted as a potent force in Indian politics with significant bearing on the structure of Indian state. Reorganization of states on the basis of language was a major step towards accommodating different identities into the political mainstream of India. Even after reorganization and creation of new states, many multi-layered identities took the form of native, even secessionist movements. Politics of identity gave rise to new regional movements, parties and forces. Even after different rounds of reorganization of states, that is, State Reorganzation Act 1956, North-East Reorganization Act, 1971, creation of Chhattisgarh, Uttarakhand and Jharkhand in 2000, many regions continue to stake-claim for separate statehood. Thereafter Telangana and Gorkhaland statehood movements also gained momentum. After the creation of separate Telangana state by central government in 2014, supporters of Gorkhaland statehood became impatient and renewed their demand. This paper attempts to analyze certain issues relating to the demand for creation of a separate state of Gorkhaland in West Bengal.

Keywords: Identity, States Reorganization Commission (SRC), Autonomy, Darjeeling District, Gorkhas, Gorkhaland.

Introduction

India is a union of states; an indestructible Union of destructible states. Article 3 of the Constitution of India provides for formation of new states by altering the boundaries of existing states. As a consequence, demand for and formation of new states has become a regular phenomenon in our democratic polity. The elite in a democratic polity manipulate both the extant as well as constructed issues and symbols for mobilizing support. The demand for a separate state or autonomy of the state is one of the examples of such mobilization (Jagpal Singh, 2001). People become aggrieved when a sense of deprivation and marginalization as well as an overwhelming sense of apprehension of losing their traditional advantages afflicts them (Prasanta Sengupta, 2011). Shortly after independence, movements for linguistic reorganization of states gained momentum in several states. The then central Congress leadership as well as the States Reorganization Commission (SRC) Report (1956) largely accepted the linguistic principle in a few cases but wished to maintain multilingual states for cultural homogenization. The SRC report stressed "obvious limitations to the realization of unilingualism at the state level" due to the following limiting factors: first, not all the language groups are so placed that they can be grouped into separate states; second, there are a large number of bilingual belts between different linguistic zones; and third, there exist areas with a mixed population even within unilingual areas (Mahendra Prasad Singh, 2008).

The reorganization of states on the basis of language was a major step towards accommodating different identities into the political mainstream of the country. Even after reorganization and creation of many new states, expressions of multi-layered identities took the form of native, even secessionist movements. Such politics of identity has given rise to new regional

---

* Research Scholar, Department of Political Science, University of Jammu, Jammu, India

movements, parties and forces (Sajal Basu, 1992). Some of the proposals of new States demands and suggestions of SRC were denied. Even after 70 years of Independence, India has witnessed some of the statehood demands from various regions and sub regions of the country. After the formation of Chhattisgarh, Jharkhand, and Uttarakhand in 2000 by the National Democratic Alliance (NDA), many of the sub regions raised their voice over the statehood demands from various parts of the country. Telangana state demand was conceded by the central government after bifurcation of Andhra Pradesh. Therefore central government at different intervals has created new states in order to accommodate aspirations of some of the neglected regions. However, still there are many regions staking their claim for the separate statehood such as Gorkhaland in West Bengal, Jammu in Jammu and Kashmir, Bodoland in Assam, Harit Pradesh and Bundelkhand in Uttar Pradesh, Vidharbha in Maharashtra.

History of Darjeeling District

Since the very beginning of Gorkhaland movement, there has been controversy over the political, economic and ethnic history of Darjeeling district. The supporters of the movement claimed that Darjeeling was never a part of Bengal; hence demand for separate state is genuine. On the other hand Government of West Bengal claims that Darjeeling has always been integral part of the Bengal. The present day Darjeeling district was formed in 1866 and comprises of three hill sub-divisions- Darjeeling Sadar, Kurseong, Kalimpong and Siliguri which is in the Terai region (Manthian Ching, 2016). During the British administration Darjeeling district was categorized as non-regulated area and was the responsibility of the Governor General. Later the district was placed in scheduled area category, according to which, the areas were kept outside the purview of general laws. Originally the population of the Darjeeling and adjoining areas was composed of native tribes-the Lepchas, the Limbus. However, development of area as hill station by Britishers and introduction of tea plantation led to influx of people from adjoining Nepal to serve as the labour. The extensive tea plantations led to the increased demand of Nepali origin tea gardens labourers and as per the Census report of 1901, the 61% population of Darjeeling belonged to Nepali community (Anil Kumar Jana, 2014). Currently the majority of the population of Darjeeling district comprises of the people of the Nepali origin.

Construction of Separate Identity

The inhabitants of the Darjeeling district are called Gorkhas and trace their origin to the Sanskrit word 'Goraksha' meaning protection of the cow or the temple of Goraknath in Nepal (Snehamoy Chaklader, 2004). The term is used by the people of Darjeeling to differentiate themselves from the Nepali speaking people of Nepal. Under British administration there was encouragement to the exodus of the Nepali people for their recruitment in British Gorkha regiment. In this direction Britishers established military recruitment centres at Gorakpur in Bihar and Ghoom in Darjeeling. The British administration also encouraged extensive immigration of Nepali Gorkhas to serve their needs of cheap labour for tea garden estates. Accompanied with Nepali language immigrant population of Nepalese in Darjeeling area created cultural space distinct to Rais, Limbus, Tamang, etc. Before the settlement of Nepali immigrants, Lepchas, Limbus, Sherpa, Bhutia and many other communities have been living in hill areas for centuries. In the hill areas Bengali people have no remarkable influence owing to their smaller numerical strength.

The process of Gorkha identity formation was the product of the cultural renaissance in Darjeeling. However, this process formation of a strong cultural identity in the shape of Nepali identity was unsettled as it was relocated within the matrix of national culture and identity of the Indian nation. The problem arises when this national culture not only provides resources for defining the identities

but also mediates it (Bidhan Golay, 2006). The more pertinent issue behind the Gorkhaland movement is identity, recognition, security and the overall development of the Gorkhas. Besides providing fillip to the incipient Nepali nationalism in Darjeeling hills Nepali language issue has been used by all major political parties. All India Gorkha League (AIGL) since 1943 has harped on the language issue. The language issue has also caught the attention of the undivided CPI, which in memorandum in 1947 stressed upon use of Nepali language as medium of instruction. The language demand intensified in the mid-fifties (Swatahsiddha Sarkar, 2013). In 1992, the Eighth Schedule of the Constitution was amended to make Nepali as a scheduled language. The Nepali origin inhabitants of the Darjeeling area distinguish themselves as Gorkhas in order to avoid confusion with the Nepali's living in India.

Genesis of the Gorkhaland Movement

In 1907, the demand for Darjeeling was made under the banner of Hillmen's Association, and demand was rejected by the British Government. The demand for self rule in Darjeeling was reiterated in 1909 and 1919, but was not again conceded by Britishers. The All India Gorkha League after six years of its inception in 1949 started demanding the creation of a separate provincial legislature called "Uttarakhand" consisting of Darjeeling district and its surrounding areas. The Communist Party of India on 6 April 1947 submitted a memorandum to the Government of India for the creation of "free Gorkhasthan in free India." The idea of "Gorkhasthan" was dropped by the Communist Party of India after the partition of India on 1947. The Pranta Parishad formed in April 1980 started demanding "Gorkhaland" based on the Nepalese identity but was not successful in its demand. In 1975, the formation of Sikkim as a separate state led to right to cessation among the people of Darjeeling (Sumit Kar, 2017). In the 1980s, the autonomy movement took a violent shape with the emergence of Gorkha National Liberation Front (GNLF) under the leadership of Subhash Ghising. The Gorkha National Liberation Front started demanding a separate state and it led to the creation of Darjeeling Gorkha Hill Council on 22 August 1988. The Gorkha leadership at that time laid emphasis on the citizenship demands and creation of distinct Nepali identity (Manju Subhash, 2005). The establishment of DGHC did not stop the demand for "Gorkhaland" as the Gorkha Janmukti Morcha (GJM) successor of GNLF and its supporters renewed the demand for the creation of "Gorkhaland". In 2007, a new wave of agitation began to sweep the hills against the incessant corruption and poor performance of the DGHC. In July 2011, after tripartite agreement Gorkha Territorial Administration (GTA) was created with more administrative powers than the DGHC.

The main reason behind the demand for Gorkhaland state is driven by the identity crisis among the Gorkhas. The major objective is self-determination and about participation of the Gorkhas in the Indian national governance thereby accelerating their integration in the national mainstream. Initially the main cause of the turmoil in Darjeeling hills was the accumulation of political and economic grievances. Later, the ethnic factor was also used for other causes. The initial leadership of separate Gorkhaland state led by Subhash Ghising was aware of the fact that raising only economic issues would limit their influence in the Darjeeling hills only. The GNLF leadership then mobilized the followers by calling upon the abrogation of Article VII of the 1950 Indo-Nepal Treaty of Peace and Friendship to attract the Centre's intervention (Mahendra P Lama, 1988). The leaders of the various regional parties argue that only the creation of a separate state can guarantee the Gorkhas, who share linguistic and cultural similarities with neighbouring Nepal, a recognised Indian identity and secure their political representation while fostering the development of the region in the foothills of the Himalayas (Mirriam Wenner, 2015).

An Overview of Recent Statehood Agitations

The demand for "Gorkhaland" based on the distinct ethnic identity has not ended and continues to resurfaces time and again. In 2017, ignited by the decision of West Bengal Government to introduce Bengali as the second language, Gorkhas renewed their demand for the separate state. The agitation started in the wake of State Education Minister's declaration that Bengali will be one of three languages which students have to learn till class IX (Barun Das Gupta, 2017). The Bimal Gurung led GJM suddenly revived the agitations and GJM supporters clashed with the police. Several police personnel were grievously injured and two GJM workers died of bullet injury. Incidentally, it was after 40 years that a State Cabinet meeting was being held in the hill town. As the Cabinet was meeting, workers of the GJM came out on the streets and indulged in widespread violence.

The GJM declared that it would oppose tooth and nail the 'imposition' of Bengali on the Gorkhas. Later, in this context, Chief Minister Mamta Banerjee issued a statement that decision of introduction of Bengali language was purely optional. This did not have any effect on the GJM because introduction of Bengali was just a ruse. The real cause of their violent agitation was very different. As the demand for the separate Gorkhaland state found new momentum, the tea plantation workers raised their demands for a fairer share of wages under the provisions of Plantation Labour Act, 1951. It is claimed that the plantation labourers are not paid adequately and other clauses are also violated. It is claimed that many plantations have been closed arbitrarily leaving labourers out of jobs and forcing youths to move out of towns in search of jobs which remain limited and plagued by racial discrimination.

Response of Political Parties Towards Gorkhaland Movement

The Nepali's living in Darjeeling hills from the beginning of the 20th century were conscious about their distinct identity and demanded separate administrative setup for themselves. In this direction at different intervals of time different political outfits such as the Hillman's Association, All India Gorkha League, the Congress, the Communist Party, the Pranta Parishad, GNLF and GJM raised the demand for separate administrative setup and state. Opposed to the idea of separate state of Gorkhaland, few associations in the Terai and Dooars regions have termed the demand for Gorkhaland as secessionist and as an attempt to create a Greater Nepal. However, proponents of the Gorkhakand stress that their politics of identity is not antithetical to national integration (Mirriam Wenner. 2013). Member of Parliament S S Alhuwalia is the first leader among BJP to take a step forward in the demand for Gorkhaland. However, party's West Bengal leadership is opposed to the idea of a separate state and expressed that they will not allow Bengal to be divided. But in the hill areas, the BJP members think otherwise and emphasize on the creation of a separate state for the Gorkhas. Among other political parties, the Communist Party of India and Congress are opposed to the idea of the division of Bengal and also against atrocities committed by the state government in the hills. At the other end the ruling Trinamool Congress has categorically rejected the idea of a separate state of Darjeeling.

While many blame West Bengal government for all the issues related to the neglect of the development of hills, but many find faults in local administration who have failed to perform, their duties related to the development and governance of the hill areas. The Subhash Ghising led DGHC was accused of siphoning the developmental funds and neglect of the concerns of the people. Then people reposed their faith in new leadership of Bimal Gurung who launched a new political party, that is, Gorkha Janmukti Morcha. In July 2012, Bimal Gurung was elected chief of the Gorkhaland Territorial Administration. The Chief Minister of West Bengal, Mamata Banerjee, triumphantly

proclaimed to have "solved" the Darjeeling problem. However, the fierce protests sparked by the Telangana state announcement and Gurung's temporary resignation as GTA chief in July 2013, as well as the reiteration of the statehood demand by other regional parties suggests that the autonomous council model is not a durable solution to the crisis.

The proponents of smaller states argue that the reorganization of backward regions would fulfill political aspirations of the people and also ensure their rapid economic development. It would accelerate the pace of modernization (in those States) by increasing administrative efficiency and bringing the administration closer to the people. Darjeeling district agitations have been for long used as tool by the Gorkha leaders to be in power. The national political parties have always exploited the situation as they looked towards Darjeeling for getting representation in Lok Sabha or State Assembly. The Communist Party of India and The All India Trinamool Congress ruled Darjeeling for long time but have always taken decision just to tide over the situation. The Darjeeling situation is suggestive of the fact that the political parties typically find elections as the appropriate strategy to fetch the rewards of ethnic outbidding. Aspiring politicians, greedy for attaining electoral victory at any cost, have strong incentives to harness these identities as a political resource since ethnic identities tend to be invested with a great deal of symbolic and emotional feelings that constitute the potentiality of being a weapon much stronger than a politics based on issues or ideologies (Swatahsiddha Sarkar, 2014).

Conclusion

The increasing demand for new states raises a number of questions with regard to the well-being of India's federal democratic polity. There are few points that must be considered while devising any framework to address the issue of federal reorganization in India. These are; the creation of a permanent State Reorganization Commission for periodical review of the progress made by different states and understanding concerns of neglected regions, amendment of the constitution to ensure that demand for new state emanates from the state legislature only, examination of economic and social viability rather political considerations and clear cut safeguards to encourage democratic concerns like development and governance. There have been two tripartite agreements with regard to settlement of Gorkhaland demand first; between the Centre, State and GNLF in 1988 and second; between centre, state and GJM in 2011. Both the agreements brought a relief to the hills of Darjeeling. Though the Gorkha leadership seems to be satisfied with the new politico-administrative institutional framework but separate state remains their long term goal. In case of Darjeeling it is often argued that the grant of Statehood cannot guarantee rapid economic development of those backward regions which do not have the required material and human resources for accelerating the pace of economic growth. The Gorkhas look forward to an amicable and long lasting solution to settle the Gorkhaland issue.

References

Anil Kumar Jana (2014), "Gorkha Identity and Separate Statehood movement" Global Journal of Human Social Science History, Archaeology and Anthropology, Vol. IV, Issue XI, p.154

Barun Das Gupta (2017), "GJM Revives Separate Gorkhaland Demand-Darjeeling Burns Again" Mainstream, Vol. LV, No. 27, p. np.

Bidhan Golay (2006), "Rethinking Gorkha Identity: Outside the Imperium of Discourse, Hegemony, and History", Peace and Democracy in South Asia, Vol. 2, No. 1&2, p. 42.

Darjeeling Unrest: Here is a History of the Gorkhas and a Lazy Hamlet Called Darjeeling, The

Indian Express, 08 April, 2017.

Gorkhaland Demand Uphill Task for National Parties, Left to Right, The Indian Express, 15 June, 2017.

Jagpal Singh (2001), "Politics of Harit Prasad: The Case of Western UP as a Separate State" Economic and Political Weekly, Vol. 36, No. 31, p. 2961.

Mahendra P Lama (1988), "Unquiet Hills: Importance of Subhash Ghisingh" The Statesman, April 19 and 21.

Mahendra Prasad Singh (2008), "Reorganisation of States in India" Economic and Political Weekly, Vol.43, No. 11, p. 72.

Manju Subhash (2005), "Regionalism" in MP Singh and Himanshu Roy (eds.) Indian Political System, New Delhi: Manak Publication, p. 384.

Manthain Ching (2016), "Disparity and Conflict: A Case of The Gorkhas in Darjeeling" International Journal of English Language, Literature and Humanities, Vol. IV, Issue XI, p.154.

Miriam Wenner (2013), "Challenging the State by Reproducing its Principles: The Demand for Gorkhaland Between Regional Autonomy and the National Belonging" Asian Ethnology, Vol. 72, No. 2, pp. 199-220.

Miriam Wenner (2015), "Understanding Gorkhaland" Economic and Political Weekly, Vol.L, No.11, p. 33.

Peasanta Sengupta (2011), "Regional Movements in India: Some Recent Trends" in Anil Kumar Jana (eds.), Indian Politics at Crossroads, New Delhi: Neha Publishers, p. 106.

Sajal Basu (1992), Regional Movements: Politics of Language, Ethnicity and Identity, New Delhi: Manohar Publications, p. 54.

Samit Kar (2017), "Ethnic Divide" Mainstream, Vol. LV, No. 26.p.np.

Snehamoy Chaklader (2004), Sub-regional Movement in India, Kolkata: K P Bagchi, p. 74.

Swatahsiddha Sarkar (2013), Gorkhaland Movement: Ethnic Conflict and State Response, New Delhi: Concept Publications, p. 53.

Swatahsiddha Sarkar (2014), "Parliamentary Elections and Gorkhaland: Message from Darjeeling" Mainstream, Vol. LV, No. 25.p.np.

Understanding the Conundrum of Pakistan Afghanistan Relationship since 9/11

Sunil Kumar*

ABSTRACT

Pakistan-Afghanistan relations underwent a significant change following the incident of 9/11. Both the countries faced the identical challenge of fighting against Al- Qaeda and Taliban (War on Terrorism). However, despite the convergence of interest, both the countries have not been able to move forward in their relationship, both continued to blame each other of interfering in their internal affairs. The Afghan government has repeatedly accused Islamabad of not only sheltering the Taliban but also helping them in order to make its presence and indispensability felt. At the same time, Pakistan objected these arguments by saying that the larger problems faced by Pakistan have not been adequately addressed. The issue of trust deficit, mutual hostility and chaos still dominate their bilateral relationship. In this paper, an attempt has been made to examine the validity arguments of parties involved in the disputes in light of the actual facts and logic of the situation.

Keywords: Taliban insurgency, Al Qaeda, War on Terrorism, APTTA, Geostrategic and Geopolitical Factors.

Introduction

The bilateral relation between Pakistan and Afghanistan has been greatly influenced by various geostrategic and geopolitical factors as both being the immediate neighbouring states and have enormous implications for each other's safety and security. Historically, since the birth of Pakistan, their relationship has been far from being cordial, despite sharing the same history and bound by ties of faith, culture and geographical proximity. Afghanistan was against Pakistan's secession from British India, as the result the relationship between them has remained volatile, dominated by mutual antagonism, deep-rooted sense of suspicion and hostility, due to the issue of border conflict relating to Durand line and consequent Pashtun question which remained the core areas of conflict between the two countries till 1980s. Afterwards, the issue of Taliban insurgency became the key area of conflict between these two countries continuing till today.

Pakistan has always been blamed by Afghanistan for supporting the Taliban (regarded by Pakistan as a strategic asset) against it and interfering in its internal matters. Pakistan, on the other hand, expressed discontent that the serious problems faced by the it (such as, security and strategic concerns for Pakistan, Afghan refugee crisis due to fragile nature of Pakistan - Afghanistan border) were being ignored and asserted that it favours the negotiated settlement among the stakeholders which includes Taliban too. However, the incident of 9/11 had provided an opportunity to both the countries to resolve their long-pending disputes and to bridge the trust gap between them, because of convergence of interest that is to fight against terrorism (Al- Qaeda and Taliban), but they somehow failed to make the best use of this situation and their relationship in the post 9/11 era continued to be dominated by the issue of mistrust, mutual hostility, and chaos which can be characterized by the phenomenon of 'one step forward and two steps backward approaches.

* Research Scholar, Department of Strategic and Regional Studies, University of Jammu, Jammu, India

Political Relations

The nature of the relationship between Pakistan and Afghanistan largely depends upon the role played in Pakistan as Pakistan has a larger role to play in determining their relationship due to the various historical factors. Since the birth of Pakistan, its primary interest has always been to have a Pakistan friendly government in Kabul believing that it will not only end its long dispute over Durand line but also provide it with a strategic depth against possible threats from India. Historically, Pakistan due to a hostile geopolitical environment could not afford stable and independent Afghanistan, a second front toward her west. So, Pakistan shaped its Afghanistan policy accordingly.[1]

Prior to the cold war, both the countries had workable relationship, though far from being cordial. During the Cold War Pakistan with the US actively involved in the internal affairs of Afghanistan in order to force the Soviet Union out of Afghanistan. No significant change took place in their relationship during the Taliban rule; Pakistan continued its policy of supporting proxies in Afghanistan in the form of Taliban in the post-Cold War era.[2]

Pakistan reluctantly agreed to abandon the Taliban and to support the US-led WoT (Operation Enduring Freedom) in Afghanistan due to enormous international pressure, particularly from the US. Since the Cold War era, Pakistan has been keenly involved in planning as well as in implementing numerous domestic as well as global initiatives related to Afghanistan such as bringing the Taliban into the negotiating table. This is a well-established fact that Pakistan supported the anti-terrorist operation (such as Operation Enduring Freedom) in Afghanistan for its strategic and economic interests.[3]

Due to continuous international pressure, Pakistan undertook several military operations against Al-Qaeda and Taliban terrorists as a part of War on Terrorism strategy, such as Operation Al-Mizan (2002-2006), Operation Rah-e- Nijaat (October 2009), Operation Zarb-e-Azb (2013), Operation Radd-ul-Fasaad (2017). However, these anti-terrorist operations by Pakistani army severely criticized as selective in nature, allowed the Taliban to consolidate themselves in the FATA and NWFP territories, which in turn enabled them to reestablish their power across the border in southern Afghanistan.[4] Further the peace deals (such as the Shakai Accord of 2004, the 2006 Waziristan Accord, the Bajaur Accord of 2007 and the Swat Accord of 2008, which were attempted with the local Taliban were also criticized that such accords actually strengthened the Afghan Taliban. The result was a decline in the relationship between Islamabad and Kabul. While Musharraf was a prominent absentee from Karzai's 2007 Peace Jirga which was aimed to bring together Pushtun tribal elders from southern Afghanistan and northern Pakistan to address the shared problem of Islamic terrorism.[5]

Although, Pakistan alone should certainly not be held responsible for the worsening of Afghanistan's internal state of affairs given the role of other factors as well, '(such as, the enormous implications of Cold War rivalry between two superpowers USA and USSR on Pakistan-Afghanistan relations. The Cold War rivalry laid the foundation that determines the future course of relation between two neighboring states). Though, it cannot be denied that Pakistan has been a decisive factor in deciding the destiny of Afghanistan by passionately contributing to the Taliban insurgency in Afghanistan; thus threatens the very national and international reconstruction efforts in Afghanistan. The guerrillas could not operate without the benefit of safe sanctuaries in Pakistan. The Taliban backed by Pakistan though are not today in a position to overthrow the government, yet they continue to be a serious threat in an increasingly large part of the country. The stakes are numerous: First and the most important are the ordinary Afghan citizens whose daily lives have been extremely affected by

almost thirty years of conflict and whose security continues to be under constant threat. This insecurity also prevents the development from taking place in Afghanistan, which in turn reinforces insecurity and increasingly pushes Afghanistan in a downward and dangerous position. The possibility of Afghanistan once again becoming a sanctuary for terrorism and a threat to the larger international community is also a serious issue.[6]

On the other hand, unlike Pakistan, Afghanistan did not view the situation in quite the same way; rather Afghanistan has always enjoyed good relations with India for a long time. Despite all the issues Pakistan- Afghanistan relation has been described as twin brother by then Afghanistan President Hamid Karzai due to their multidimensional linking.[7] While speaking at three days Munich Security Conference which was held to discuss world's most pressing security issues, Pakistan army chief General Bajwa has categorically denied the presence of any terrorist sanctuary on countries soil and that recalled the steps taken to prevent the unauthorized movement across the porous border. He held Pakistan being attacked from a terrorist hideout on Afghan soil; he also emphasized the need for repatriation of 2.7 million Afghan refugees currently residing in Pakistan and asked the US to stop blaming Islamabad for its failure in Afghanistan.[8]

Further, the competition between the Afghan and Pakistani governments is a phenomenon that points out a considerable part of the tension between them. Since late 2001, Kabul has struggled to reassert its authority in the east and south of the country, demonstrated intense concern to revive its position as the gravitational orbit of all Pushtuns irrespective of whether they live in Afghanistan or Pakistan.[9]

Both countries attempted to present themselves as the true champion of the Pushtun cause in the other's country and accuse each other government of being directly or indirectly complicit in the alleged sufferings of the Pushtuns. Pakistan attempts to equate the Taliban violence with Pushtun insurgency an effort to portray the Taliban as a nationalistic force rather than a terrorist organization, to give Taliban a status of legitimate force and engage it in negotiation about a possible power-sharing arrangement in Kabul which was strongly objected by the Afghan government on the ground that Pakistan was playing down terrorism by equating it to an ethnic issue. Further, Afghanistan has always supported the idea of non-aggressive Taliban members in government provided they respect the constitution.[10]

Trade and Economic Relations

Pakistan is the key trading partner of Afghanistan which is the third largest export market for Pakistani goods after the US and India. The volume of mutual trade between the two had come down from US$1.862 billion in 2015-16 to US$1.637 billion in 2016-17. Pakistan's export to Afghanistan has decreased from US$1.473billion to US$1.3 billion while imports from Afghanistan also witnessed a decline from US$0.389 billion to US$ 0.337 billion during the same period. However, imports and exports, both saw the upward trend in July- April 2017-18. Exports increased by 38% as compared to July-April 2016-17 and imports from Afghanistan also increased by 28% during this period showing an increase of 35% in bilateral trade.[11] On October 2010 both the countries signed Afghanistan Pakistan Transit Trade Agreement (APTTA) superseding the 1965 (APTA) Agreement, enforced on 12th June 2011.[12]

Under the APTTA both countries are provided with the right to use each other's specified land routes and ports for foreign trade. According to articles 3 and 4 of APTTA, Pakistan provides Afghanistan with access to use Karachi, Qasim and Gwadar Ports, as well as the Wagah route for

overland trade with India and Pakistan was provided transit rights through Afghanistan's border crossings at Ai-Khanum and Sher Khan Bandar (with Tajikistan), Aqina and Torghundi (with Turkmenistan), Islam Qala and Zaranj (with Iran), and Hairatan (with Uzbekistan). In 2012, to further facilitate the better implementation of APTTA, the Pakistan-Afghanistan Joint Chamber of Commerce and Industry (PAJCCI) and the Afghanistan-Pakistan Transit Trade Coordination Authority (APTTCA) were established.[13] However, this agreement lapsed in 2015 and the failure to renew the APTTA discussions between Pakistan and Afghanistan has created further hurdles in their bilateral relations. Afghanistan is strategically located between the energy-rich regions of Central Asia and the major seaports in South Asia, providing a key transit route for central Asian oil and gas to markets in overseas and South Asia. It has access to markets of the fast growth of neighbouring countries, including markets such as Pakistan, China, and India.[14] Besides trade, the transit route through Pakistan is a lifeline for Afghanistan and will continue to be so for the foreseeable future.[15]

Both Afghanistan and Pakistan are members of the SAARC and the Economic Cooperation Organization (ECO). Thus, two of the largest regional co-operation in the world connects them with six South Asian and eight Central and Southwest Asian countries. All these organizations are to facilitate trade, in principle. In practice, however, there are many trade restrictions.[16]

Afghanistan being a landlocked country has remained dependent on Pakistan for its transit trade while both countries are also immediate markets for each other. Unfortunately, the bilateral trade relations between them have remained erratic.[17] This situation made Afghanistan to explore alternative possibilities. Afghanistan shifted its attention towards Iran's Bandar-e-Abbas and Chabahar port. Consequently, the volume of trade and transit between Afghanistan and Pakistan has declined. Further, both India and Afghanistan in June 2017 opened an air corridor to link Kabul with Delhi and later with Mumbai. Goods worth more than $20 million were exported to India in the first six months. On the other hand, the hospitals of Peshawar that thousands of Afghan patients visited for treatment are said to be almost empty after Pakistan introduced strict travel measures forcing medical tourism to divert towards Delhi given the ease of travel provided by the Indian government. Pakistan's course of action has not only cost it a considerable share of trade but also kept it away from potential economic opportunities in the region.[18]

Role of External Players; The US Factor

Following the entry of Soviets Union in Afghanistan in December 1979, the US realized a serious threat posed to its national security and stability. Based on its historical relations, geo-strategic location and mutual interest in Afghanistan US enter into an alliance with Pakistan, for the purpose of pushing the Soviet Union out of Afghanistan. The US provided militaries as well as monetary support to Pakistan to deal with the Soviet Union in Afghanistan in first, later to fight against Al-Qaeda and Taliban terrorists following the incident of 9/11. However, despite the convergence of interest in Afghanistan both these countries quite often faced a conflict of interest and continued to blame each other for not doing enough to defend each other interest. The question of trust deficit and duplicity were the two major hurdles in their mutual alliance.

Since 2001, Afghanistan has been a central concern for US foreign policy, in response to the terrorist attacks of 9/11, the US led a military campaign against Al Qaeda and the Taliban government that harbour and supported it. In the prevailing 17 years, the US has suffered around 2,400 fatalities in Afghanistan; the US Congress has appropriated more than $132 billion for reconstruction efforts in Afghanistan. In the meantime, an elected Afghan government has replaced the Taliban, and nearly every measure of human development has improved, although future prospects of those measures

remain mixed.[19]

In early 2019, US military engagement in Afghanistan appears nearer to the conclusion than conceivably ever before as US officials negotiate directly with Taliban interlocutors on the issues of counterterrorism and the existence of US troops. However, US negotiators caution that talks are still at a preliminary stage, and Afghan government representatives have not been directly involved. However, it remains uncertain what kind of political arrangement could satisfy both Kabul and the Taliban to the point that the latter fully dumps armed struggle.[20]

Since the FY 2002, the US Congress has provided more than $132 billion in aid for Afghanistan (about 63% for security and 28% for development, the rest for civilian operations and humanitarian aid). The FY 2019 budget requests $5.2 billion for the Afghanistan National Defense and Security Forces (ANDSF), $500 million in Economic Support Funds, and smaller amounts to help the Afghan government with tasks like combating narcotics trafficking. This is nearly even with them in general FY2017 enacted level of about $5.6 billion (down from nearly $17 billion in FY2010). However, these figures do not comprise the cost of US combat operations as well as related regional support activities, which was estimated at a total of $752 billion since FY2001 in a July 2017 DOD report, with approximately $45 billion requested for each of FY2018 and FY2019.[21] In overall terms, in 2017, the US total national-defence spending amounted to US$602.8 billion which was the equal of 70.1% of total spending by all NATO member states.[23]

As per latest congressional record, the annual cast in Afghanistan alone is $51 billion the combined amount spent by NATO allies in Afghanistan is added, the number rises massively. The projection is based on NATO's total defence spending, except the US, for 2017, which was about $957 billion. Overall the US supplied $ 6.6 billion to Pakistan in between 2002- 2008, in military aid to fight extremists, over $1 billion a year.

America's Logistic Dependence on Pakistan

Despite being caught in a situation of catch-22, because of awareness of Pakistan's duplicity in dealing with WoT the US was heavily dependent on Pakistan for its supply chains to Afghanistan through routes of Chaman Kandahar and Khyber Pass. In addition to this bulk of its oil supplies to Afghanistan operation got refined in Pakistan. The frequent attack on US supply convoys could be effectively contained with the support of the Pakistan army. For its logistic support, the US was constrained to act against Pakistan.[24] The failure of Pakistan to deal with the problem of extremists' threat led to the strain in its close relations with the US. However, primarily the Bush administration should be blamed for this chaos, whose main purpose was to catch Al- Qaeda terrorists and the post-war deliberation was not given much importance.[25]

However, due to tensions in US-Pakistan relationship on the Afghan border due to which Pakistan many times close down the border for NATO traffic, the US was forced to divert its cargo movement through Northern distribution Network (a patchwork of railway and roads through Russia, Siberia, Central Asia, and the Caucasus) which reaches 50% by 2011, and one third of its supplies now pass through Azerbaijan and the rest from European Baltic through Russia and central Asia. The US has quickly reduced its supplies through Pakistan because of its continuing deteriorating relations with Pakistan. Although the US is heavily dependent on Pakistan to continue its operation in Afghanistan, the diversification of its supply chain economically is not that feasible.[26]

Drone Strikes

Night raids and drone strikes only add fuel to the fire. The by us forces drone strikes that target

terrorists in the restive Pashtun tribal belt are highly controversial in Pakistan. For US policymakers, it is an effective counterterrorism tactic. There are several studies available on the accuracy, reliability and ultimate effectiveness of this tool of war; using the same data, analysts can come to very different conclusions depending on their particular point of view.[27]

Depending on various claims, between 2,000 and 3,500 individuals are estimated to have been killed in these attacks, but it is not clear how many of these were terrorists. The significant number of drone victims according to local estimates has been civilians, including women and children. It is this collateral damage that helps the militant group's recruits. It is not absolutely clear whether the drone strikes killed more terrorist or their number has spawned. But regardless, killing terrorists is only a temporary arrangement. Further, the recent remarks made by Prime Minister (PM) of Pakistan, Imran Khan in response to US president Trump regarding Pakistan again raise elementary questions about the prospects of drone strikes in Pakistan.[28]

The Indian Factor

One of the major factors in Pakistan-Afghanistan relations is the role and influence of India in Afghanistan. The Pakistani military intelligence establishment views Pakistan- Afghanistan relations inversely correlated to India-Afghanistan relations, even though the history of the triangular relationship challenges the validity of such yardstick. In contrast to Pakistan invisible attempts to appear as a helping hand in Afghanistan, India has undertaken solid, longstanding and visible projects in the cities and in the countryside which the Afghanistan public could easily appreciate. India's assistance is also contributing directly to the human resource development and capacity building areas. Since 2001, the Indian government has been directly involved in training many Afghan diplomats and civil servant, extended technical assistance to upgrade and modernize Afghan infrastructure. Since the falling of Taliban regime the number of Indian scholarship to Afghan students enrolled in Indian universities, has increased more than a thousand.

Similarly, there is a heightened level of cooperation between the two countries diplomatically; India reopened its embassy in Kabul soon after the Taliban's defeat. But more importantly, it also opened four consular offices in major Afghan cities of Mazar-e- Sharif, Heart, Qandahar and Jalalabad. In past, India never had any consular offices in these cities. Pakistan alleges that India does not have any major commercial or consular interest in these cities and that these Offices are used by an Indian intelligence agency, RAW to carry out anti-Pakistan activities. India Pakistan rivalry is active in central Asia as well. Pakistan has always rejected India's request to allow Indian goods to Afghanistan through the land route, but instead, it proposed that India use the Karachi seaport for their export to Afghanistan. On the other hand, Pakistan has allowed exports from Afghanistan to India from the same land route. In Afghanistan, Pakistan followed the strategy to keep the pot simmering but never allowed to boil just like it follows in case of India. When India raised serious objections on US A-Pak policy the way US responded to Indian insistence made Pakistan critical of US, Pakistani media criticized the US for ignoring its sacrifice made by its army in the war on terrorism.[29]

Both India and Afghanistan signed the bilateral Strategic Partnership Agreement in 2011, during Afghan President Hamid Karzai's visit to India considered as a landmark event and significant for its implications for their bilateral relations as well as for India's broader neighborhood policy, the 2nd meeting of bilateral Strategic Partnership Council was held in New Delhi on 11 September 2017. Under this agreement, the projects implemented are US$ 2 billion development and economic assistance extended by India to Afghanistan towards social, economic, infrastructure and human resource development in the country. Both countries agreed to start an ambitious New Development

Partnership. The 11MoUs worth $9.5 million signed by India with Afghan government aimed for public services such as governance-related and health projects infrastructure development.[30]

India's development contributions in Afghanistan are perceived by Pakistan as part of New Delhi's strategic encirclement policy that Islamabad feels would leave it vulnerable in any potential conflict.[31]   Recently, India virtually rejected Pakistan's indirect offer to join APTTA in response to repetitive concern raised by Afghan President Ashraf Ghani with Pakistan Army chief Qamar Jawad regarding the transit of Afghanistan trade with India, as agreed under this agreement, first time in the history Pakistan has recognized Indian stake in Afghanistan by saying that India has role crucial for the Afghan peace process, as and maintained a stern position against Pakistan that terror and talks cannot go together has eclipsed their relationship.[32]

Conclusion

However, the most important factor that has been neglected or on which action was taken rather so late was the issue of reconstruction and rehabilitation of Afghanistan. Economic aid has been given by the international community for this purpose but this has not proved that effective. The military operations are important for eliminating terrorists but is more important is the sustainability of operations which helps in the stability and development of Afghanistan especially the fragile border of both the countries. The military operations in this area have destroyed the area of human settlement, institutions, and schools forcing the youth to fall in the trap of terrorist elements.

 Pakistan has failed to play a major role in this area given its strategic location and historical relations. Though Pakistan also has fair concerns of its own, logically it cannot accept a permanent threat to its territorial integrity and rightly or wrongly feels increasingly encircled by India and India's regional allies.

Unlike in Afghanistan where security-related initiatives were introduced almost in parallel with political moves and development projects sponsored by the international community, the Pakistani tribal belt faced a military onslaught first, and development was an afterthought. By the time development projects were introduced, the security situation had deteriorated to such an extent that people were unable to respond positively. Development and security have a paradoxical relationship, developmental efforts are often disappointed by the very insecurity they are meant to deal with.

There is a desperate need for a corresponding and parallel development strategy to bring the tribal areas into mainstream Pakistan, in order to empower girls like Malala Yousafzai, who challenged the Taliban world view by standing up for education, especially for girls. This inclusiveness has long been the missing component in US policy, and tragically it remains so. Dismantling the Al- Qaeda network is a worthwhile goal, but de-radicalization is equally important.

It is not that there has been no US investment in education; rather, the dilemma is the lack of balance in the use of hard and soft power. The damage done to hundreds of schools throughout the tribal belt at the hands of the Taliban has in fact displaced more than 60,000 children, including around 23,000 girls, from school. It does not take much to realize the kind of future that awaits these kids in the absence of schools and with an increase in violence. Drone strikes may knock out some of those who destroyed the schools, but that is hardly a sustainable solution to the larger problem of Talibanisation and militancy. How many schools were opened in the region over the same period of time the answer is distressing as the number of schools actually declined sharply. A study conducted by a US military adviser has found that drone strikes in that country during 2012-13 caused ten times more civilian casualties than strikes by manned aircraft. Poor public awareness about terrorist organizations,

public outrage at drone strikes indirectly empowers the terrorists. It allows them space to survive, move around and manoeuvre. Second, anti- US feeling in Pakistan has increased substantially, weakening the USPakistan counterterrorism cooperation. Contradictions regarding whether US drone strikes have killed or spawned more terrorists.

Further, Pakistan is spending around $483 million to build chain-link fences along its porous 1,500-mile border with Afghanistan to curtail the flow of terrorists between the two countries, dismantling militant networks in its restive tribal North and South Waziristan regions. The military says it will have 92 per cent of the national border fenced before the end of 2019. One of the main concerns for Afghanistan, however, is that the project will separate families and rip apart communities who have been able to cross freely for centuries. Tribes living on both sides are brothers, they are one family. You can't separate them by fencing.

The reverse exodus of Pakistan's Afghan refugees: Pakistan's request for all three million Afghan refugees within its borders to leave is causing chaos on its borders and plunging families into uncertainty. Many Afghans have spent all their lives in Pakistan. The BBC's M Ilyas Khan reports from Peshawar. Khalid believes that the moves to force refugees out are due to growing Afghan-phobia in Pakistan, increased harassment of refugees by Pakistani police, and hate campaign against the refugees in the Pakistani media since the December 2014 attack on Peshawar's Army Public School. The hate has spread to social media in recent months, with "hashtags like #KickOutAfghans and #AfghanRefugeesThreat.

When Peace talks with Taliban resumed in Doha. Afghanistan protested to UN on Pakistan's role in Taliban peace talks. A strongly-worded complaint was lodged by the Afghan Permanent Mission in New York with UN Security Council. Afghanistan lodged a strong complaint with the UN Security Council against Pakistan for the latter's role in facilitating Taliban negotiations alleging that the process is a violation of the sovereignty of the landlocked country. These engagements, which are taking place under the pretext of support for peace efforts in Afghanistan, are void of any degree of coordination and consultation with the Government of Afghanistan. The Afghan government also criticized the role played by the US in this peace talks as a conflict of interest between them was witnessed at peace talks.

The Afghan government emphasises that it supports all efforts of peace provided it conforms to the principle of Afghan ownership and leadership of the peace process. India too has advocated the Afghan-led and Afghan-owned peace. However, in the event of failure or even delayed action, the whole process of nation-building in Afghanistan could be jeopardized and advantage could shift to the shadowy and evil forces, somehow that is exactly what has happened on the ground which gave the indication of what it was that gave the Taliban a new lease of life.

References

1. Shayeq Qassem, (2009), Afghanistan's Political Stability, A Dream Unrealised, England, Ashgate publishing Company, p, 129.

2. Ibid., p., 130

3. Ibid., p., 131

4. Tim Bird and Alex Marshal Afghanistan, (2012), How the West Lost Its Way, New Delhi, Orient Black Swan, pp.194-196.

5. Ibid. pp.196-200.

6. Frederic Grare, (2006), "Pakistan Afghanistan Relations In The Post-9/11 Era" Carnegie

Paper, South Asia Project, Number 72, Washington, Carnegie Endowment For International Peace Publications Department, Dc, pp. 3-4.

7. Ibid.,p.,4

8. Stop blaming Pakistan for failures in Afghanistan: Gen Bajwa to US. Available at: https:// economictimes.indiatimes.com/news/defence/stop-blaming-pakistan-for-failures-in-afghanistan-gen-bajwa-to-us/articleshow/62970015.cms (Dated12-01-2018)

9. N.,6, pp.141- 142

10. N., 6. pp.143- 144.

11. Agreed minutes of Pakistan Afghanistan bilateral trade meetings Available at: http://moci.gov.af/Content/files/Agreed%20Minutes%20of%20Pakistan%20-%20Afghanistan%20 Bilateral%20Trade%20Meeting(2).pdf (Dated12-04-2018)

12. Islamic Republic of Afghanistan Ministry of Commerce & Industries Afghanistan and Regional Trade Arrangements Available at: https://www.wto.org/english/thewto_e/acc_e/3_ afganrta_e.pdf (Dated12-05-2018) https://www.wto.org/english/thewto_e/acc_e/3_ afganrta_e.pdf (Dated12-05-2018)

13. Mirwais Parsa, Why Pakistan and Afghanistan Should Keep Trade Away from Politics, Available at: https://www.fairobserver.com/region/central_south_asia/pakistan-afghanistan-trade-agreements-south-asia-world-news-today-11521/ (Dated12-15-2018)

14. Ibid.

15. Available At Https://Doi.Org/10.1177%2F0974928413511760 (Dated12-21-2018)

16. Gulshan Sachdeva, (2010), Afghanistan And Pakistan Sign Trade And Transit Agreement, , The Central Asia-Caucasus Analyst,Vol.12No.161Availableat Https://www.Jnu.Ac.In/Sites/ Default/Files/APTTA%20Gulsha n%20Sachdeva%20CACA.Pdf (Dated12-29-2018)

17. Shoaib A. Rahim, Capricious Afghanistan-Pakistan Trade: Who Wins? Ultimately, Pakistan loses from its stifling policies as Afghanistan seeks out other partners. Available at https://thediplomat.com/2018/05/capricious-afghanistan-pakistan-trade-who-wins/   (Dated 1-1-2019)

18. Ibid

19. Congressional Research Service Afghanistan: Background and U.S. Policy In Brief , Updated February 26, 2019 Available at: https://fas.org/sgp/crs/row/R45122.pdf , p, 1 (Dated01-10-2019)

20. Ibid

21. Ibid.,p,11

22. The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations since 9/11, October 3, 2005 December 8, 2014, Available at: https://www.everycrsreport.com/reports/ RL33110.html (Dated01-18-2019)

23. Younes Ali, SIGAR questions millions spent in Afghanistan, US oversight body on Afghanistan says Taliban holds large swaths of country as it notes a rise in opium production.1 Aug 2017, Available at: https://www.aljazeera.com/news/2017/07/fails-account-billions-spent-afghanistan-170731214339660.html (Dated01-20-2019)

24. K Davar, (2009), "Afghanistan Conundrum: An Analysis And The Way Forward", USI Journal,

pp.60-61

25.   Ahmed Rashid, (2012), "Pakistan On The Brink, The Future Of Pakistan , Afghanistan And The West", England, Allen Lane Penguin Group, pp. 46- 50

26.   Ibid. pp, 50- 55

27.   Spencer Ackerman, (2019) Trump Ramped Up Drone Strikes in America's Shadow Wars, Available   at   https://www.thedailybeast.com/trump-ramped-up-drone-strikes-in-americas-shadow-wars (Dated 1-23-2019)

28.   Ibid

29.   Marvin G. Weinbaun, (1991) "Pakistan and Afghanistan: The Strategic Relationship", AsianSurvey, Vol.31, No.6 (June), p. 144-149. Available at https://www.Jstor.Org/Stable/2645079 (Dated 01-24-2019)

30.   Joint Statement on the 2nd Strategic Partnership Council Meeting between India and Afghanistan, New Delhi September 11, 2017, Available at: https://mea.gov.in/bilateral-documents.htm?dtl/28936/Joint_Statement_on_the_2nd_Strategic_Partnership_Council_Meeting_between_India_and_Afghanistan_New_Delhi_September_11_2017 (Dated 01-30-2019)

31.   Available   at:https://economictimes.indiatimes.com/news/defence/indias-role-crucial-for-afghan peace process pakistan/ articleshow/67041628.cms (Dated 02-02-2019)

32.   Suhasini Haidar India Turns Down Pak. Offer Of Talks On Transit Trade To Afghanistan: Available   at: https://www.thehindu.com/news/national/india-turns-down-pak-offer-of-talks-on-transit-trade-to-afghanistan /article19941006.ece (Dated 02-03-2019)

Incidence of Poverty in the State of
Jammu and Kashmir: A Micro Level Analysis

Tsering Yangzom* and Reena Bhasin**

ABSTRACT

This paper offers a micro level analysis of poverty in Jammu and Kashmir. The paper finds that the incidence of poverty is higher in rural areas than in urban areas in the State. Whereas, incidence of poverty among social groups is concerned, the socially backward groups (Scheduled Tribe and Scheduled Caste) have the highest ratio. In rural areas, Scheduled tribe has the highest ratio and the Scheduled caste has the highest in urban areas. While talking about different occupational groups, poverty ratio is the highest for regular salaried and labour household group in rural and urban areas respectively. In terms of religions, Christianity has the highest incidence of poverty in both rural and urban areas. The distinguishing characteristics of the poor households as compared to non-poor households are big household size and gender of the head.

Introduction

As per internationally accepted norms of poverty, a person is considered to be poor and falling below the poverty line if he/she cannot just have one kilogram of rice per day per capita. This concept is based on the calories requirement and minimum need for subsistence. Consumption expenditure of $1.25 and $2 per person per day is also used to estimate the quantum of people below poverty line World over.

From the reviewed literatures Smoleniky (1966), Sen (1970), Julka (1986), Bhasin (2001), Deaton and Dreze (2002), Bourguignon (2004), Himanshu (2007), Dev and Ravi (2007), Panagariya and More (2013) and Panagariya and Mukim (2014) it becomes quite clear that most of the studies are done at the national level. Thus, a gap in the literature shows no in-depth study on the status of poverty has been conducted for the state of Jammu and Kashmir exclusively. Thus, the paper would primarily attempt to fill up this gap by undertaking a micro level analysis of incidence of poverty in the state.

Therefore, the paper would also intend to answer the following related research questions:

- Does socio-economic background affects the incidence of poverty in the state?
- Do Religious groups affect the incidence of poverty in the state?
- Whether the educational and demographic characteristic helps in distinguishing the poor households from the non-poor households?

Accordingly, the paper has following objectives:

1. To estimate the incidence of poverty in the State as a whole, among different socio-economic and religious groups; and

* Assistant Professor, Department of Economics, University of Jammu, Jammu, India
** Professor, Department of Economics, USOL, Panjab University, Chandigarh, India

2.   To find out the main educational and demographic characteristics of the poor versus non-poor.

Therefore, the first step is to categorize the paper into sections as per objectives. The Section I deals with the data and methodology for the measurement of the poverty. The Section II shows the details about the incidence of poverty among different socio-economic groups. The Section III talks about the incidence of poverty among religious groups. The Section IV draws the educational and demographic characteristics of poor households versus non-poor households. Lastly, Section V gives the summary of the paper.

Section I: Data and Methodology

The methodology is concerned, we have used three conventional poverty indices and these are the Head Count Ratio (HCR), Poverty Gap Ratio (PG I) and Poverty Gap Ratio (PG II).

A Brief Description of the Poverty Indices:

Let $Y_1, Y_2, Y_3.......Y_n$ be the income vector of n households and Z be the poverty norm, then $Y_i <$ Z for i = 1,2,...P will be the poor households denoted by p. Where, Y_i is the income of the ith household.

Given net household income Y_i

We define $\qquad y_i = \dfrac{Y_i}{W_i}$

and $\qquad y_i{}' = \dfrac{Y_i}{W_i{}'}$

where, W_i is the size of the ith household in biological units and W_i' is the size of the ith household in consumer equivalent units.

If all observations on y are arranged in an ascending order of magnitude then p* is the number of persons with yi ≤ z.

Thus, $\qquad p* = \sum_{i=1}^{P} W_i \quad$ and $\quad n* = \sum_{i=1}^{n} W_i$

Thus, **HCR** is given by

$$H = \frac{p*}{n*}$$

Given the income y_i of the ith person, is defined as

$$g = \sum_{i=1}^{p}(z - yi)\, W_i$$

The average poverty gap then will be

$$g = \frac{g}{g*}$$

Income-gap ratio or **PG I** and **PG II**, can be defined in two ways:

$$PG\ I = \frac{g}{p*z} = \frac{g*}{z}$$

and

$$PG\ II = \frac{g*}{\mu},$$

Where, μ is the mean income of the whole population

i.e. $$\mu = \frac{\sum_{i=1}^{n} y_i W_i}{\sum_{i=1}^{n} W_i}$$

The HCR is the simplest method of measuring poverty. It has been widely used.

The paper incorporated the secondary data and the source is the National Sample Survey Organisation (NSSO). The paper used the 61st round data on Consumption expenditure and it was conducted for the period from July 2004 to June 2005. Further, the data helps in estimating poverty ratio on the basis of two different consumption approaches viz Uniform Recall Period (URP) and Mixed Recall Period (MRP). The URP is based on 30 days reference period consumption expenditure data and MRP based on 365 days reference period consumption expenditure data.

In order to calculate the poverty ratio, State specific poverty lines (Rs 522.30 for Rural areas and Rs 602.89 for Urban areas) have been used. These poverty lines are based on Prof Suresh D. Tendulkar committee report, Planning Commission (2009). Based on the poverty lines stated above and using the measures, it is found that as per URP method, the ratio is higher for rural areas (20.65 percent) than urban areas (9.60 percent). In terms of MRP method, it is again higher for rural areas (14.09 percent) than in urban areas (10.36 percent).

Section II: Incidence of Poverty among Different Social Groups:

In order to measure the poverty incidence among different social groups (i.e, caste groups), the households are divided into four groups viz Scheduled Tribe (ST), Scheduled Caste (SC), Other Backward Caste (OBC) and other social group (Those who do not come under the any one of the three social groups ST, SC and OBC will be assigned "others"). Moreover, the other social group (mainly consists of general category).The Table 1 shows the estimates of different poverty measures among these groups.

Table 1: Estimates of poverty among different social groups (%)

POVERTY INDEX	ST**		SC			
	URP	MRP	URP		MRP	
	RURAL	RURAL	RURAL	URBAN	RURAL	URBAN
HCR	41.28	26.52	22.1	17.49	14.71	13.78
PG I	14.55	11.41	16.47	18.13	11.36	15.41
PG II	10.56	7.59	11.55	12.47	7.46	10.06

**** There is no ST Urban population.   Source: Authors' Compilations**

Table 1: Cont..

POVERTY INDEX	OBC				OTHERS			
	URP		MRP		URP		MRP	
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
HCR	26.73	5.92	23.51	3.11	18.81	9.22	11.77	10.5
PG I	20.6	20.77	19.36	26.12	14.27	24.44	4.04	20.92
PG II	14.21	14.01	13.81	17.72	9.17	13.58	8.9	1.11

Source: Authors' Compilations

The incidence of poverty in rural areas as per URP method is the highest for ST group (41.28 percent) and the lowest for other group (18.81 percent). In case of urban areas, it is SC group with the highest ratio (17.49 percent) and OBC group with the lowest rate (5.92 per cent). Therefore, it is concluded that the incidence of poverty is highest in ST group in rural sector and in SC group in urban areas of the State. However, with the rare exception the ST group has no poor persons in urban areas and this is usually not the phenomena. This might be due to the fact, the low ST population in the urban areas as these households are heavily concentrated in rural areas, leads to low sample size representing the group which further results in a relatively small number of ST households being sampled. As per MRP method, the highest incidence of rural poverty is in ST group (26.52 percent) and the lowest in other group (11.77 percent). In urban poverty, SC group (13.78 percent) tops the list and OBC (3.11 percent) which has the lowest. Therefore, it is concluded that the ST has the highest rural poverty and SC has the highest urban poverty irrespective of methods and other social group has lowest rural poverty as per both methods.

The poverty gap ratios (PG I and PG II) as per URP method, are the highest for OBC with (20.6 percent and 14.21 percent) and lowest for others (with 14.27 percent and 9.17 percent) meaning thereby, that the severity of rural poverty is the greatest for OBC amongst all social groups, while it is the lowest for other group. In other words, it is said that the OBC group has the highest extent to which

individual falls below the poverty line and on the other side, other group has lowest level of deprivation in rural poverty. In urban areas, the gap ratios are highest in other group (24.44 percent and 13.58 percent) and lowest in SC group (18.13 percent and 12.47 percent). While as per MRP, the highest poverty gap ratios were found in OBC group with (19.36 percent and 13.81 percent) in rural poverty and it is again OBC group with highest poverty gap ratios (26.12 percent and 17.22 percent) in terms of urban poverty. This means that the level of deprivation is the highest under OBC group in irrespective of the sectors. These gaps are lowest for ST group in terms of rural poverty and SC group in terms of urban poverty.

Furthermore, the share of urban poverty by social groups is concerned; it is presented in the Figures 1 (A) and (B). From both the figures, it has been observed that, it is a prominent characteristic that the other group comprised of the highest share in the total State poverty in both rural and urban areas. This might be because of the fact that this group has highest percentage share in the total population of the State (which are 67.6 percent and 87.4 percent of the total rural and urban population respectively).

Figure 1(A) : Percentage Share by Social Groups to Total Rural-Poverty
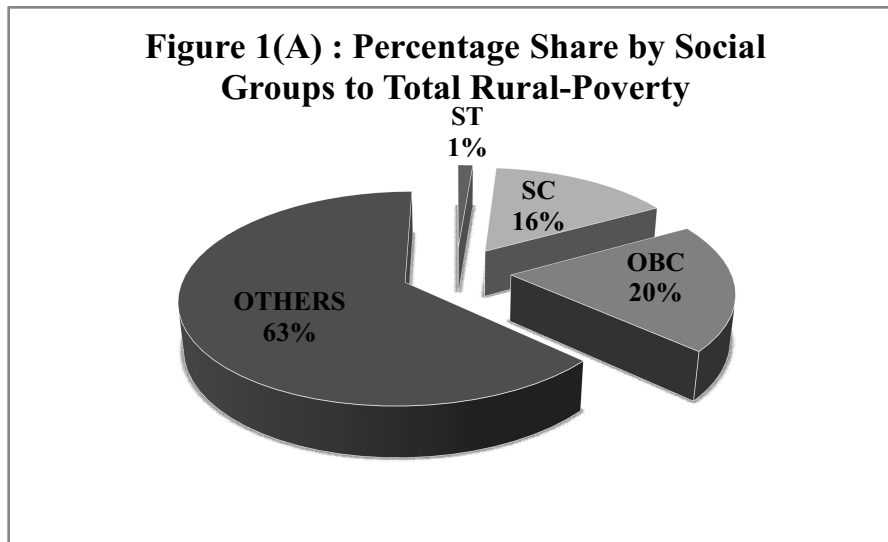
Source: Authors' Compilations

Figure 1 (B): Percentage Share by Social Groups to Total Urban-Poverty

SC 13%

OBC 2%

OTHERS 85%
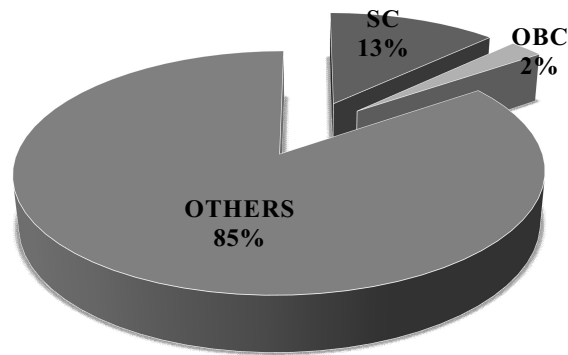
Source: Authors' Compilations

One of the prominent social groups in terms of its share in the total urban poverty of the State (17.00 percent). This group has more share in the total urban poverty than in the total urban population of the State (6.97 percent), leading to the interpretation that, if a person belongs to the SC group the chances to fall into the poverty increases.

Section IV: Incidence of Poverty among Different Occupational Household groups

According to NSSO, there are five occupational household types in rural areas. These are Self Employed in non-Agriculture, Self Employed in Agriculture, Agricultural Labour, Other Labour (all households which do not fall under the category like self-employed in non-agricultural, agricultural labour or self employed in agricultural). In other words, if its income from rural labour (all wage-paid manual labour) is greater than that from self-employment as well as that from other economic activities, self employed in agriculture and other household type (mainly regular salaried household). The Table 2 (A) presents estimates of poverty in these groups in rural areas. The HCR is the highest in other labour household type with 39.55 percent and 31.28 percent under URP and MRP method respectively. The lowest HCR in the other households. Secondly, the URP based PG I ratio is the highest for other group (21.1 percent) and lowest for self-employed in agriculture group while PG II is the highest for other labour group (16.82 percent) and lowest for self-employed in agriculture group.

The Table 2 (B) deals with the poverty estimates in urban areas on the basis of occupational household group. According to NSSO, there are four occupational household groups in urban areas and these are self employed, regular wage/salary earning, casual labour and other household type (a household which does not have any income from economic activities). Firstly, as against the common belief, the incidence of poverty is the highest in the regular wage/salary earning household group as

per both URP (17.49 percent) and MRP (13.78 percent). However, it is self-employed household group with no poverty. This can be explained with the help of (i) its definition; these were persons who worked in others' farm or non-farms enterprises (both household and non-household) and, in return, received salary or wages on a regular basis of daily or periodic renewal of work contract). This category included not only persons getting time wage but also persons receiving piece of wage or salary and paid apprentices, both full time and part time, and (ii) the conditions of Regular salaried group in the State as a specific and India as a whole (NSS Report, 2007).

Table No. 2 (A) : Estimates of Poverty Measures among Different Household Type in Rural Areas (%)

POVERTY INDEX	SELF EMPLOYED IN NON AGRICULTURAL		AGRICULTURAL LABOUR		OTHER LABOUR		SELF EMPLOYED IN AGRICULTURE		OTHERS	
	URP	MRP	URP	MRP	URP	MRP	URP	MRP	URP	MRP
HCR	16.51	14.75	25.25	17.22	39.55	31.28	20.7	11.93	14.15	9.42
PG I	16.18	14.03	18.55	20.96	18.44	14.54	13.1	13.01	21.1	21.19
PG II	10.05	8.65	15.53	16.59	16.82	12.49	8.56	8.53	12.56	12.09

Source: Authors' Computations

Table No. 2 (B) : Estimates of Poverty Measures among Different Household Type in Urban Areas (%)**

POVERTY INDEX	REGULAR WAGE		CASUAL LABOUR		OTHERS	
	URP	MRP	URP	MRP	URP	MRP
HCR	17.49	13.78	5.92	3.11	9.22	10.5
PG I	18.13	15.41	20.77	26.12	24.44	20.92
PG II	12.47	10.06	14.1	17.72	13.58	11.16

**   ** The poverty estimates are nil under self-employed group.   Source: Authors' Compilations**

According to NSS Report (2007), the conditions of employment are listed as: no written job contract and temporary nature of the job. Hence, these two helped us to justify the predicament of this said household group. This is further supported by the study given by one of the main government body which quotes "Certain aspects of development have created backwash effects for the poorer sections of urban community, and some of these have created problems for shelter and livelihood security for the poor. Over years, the category of 'self-employed', the lowest earning and the least secure among the workers, has increased and the category of 'regular employees' has gone down

(Planning Commission, 2006)".

Secondly, by looking at the PG I and PG II ratios, it is said that the gaps are highest in the other household group as per URP method (24.44 percent and 13.58 percent) and in the casual labour household group as per MRP method (26.12 percent and 17.76 percent) in urban areas. On the other hand, it is the regular salaried household group with the lowest PG I and PG II as per both URP (18.12 Percent) and MRP (15.41 percent and 10.06 percent) methods. Therefore, it is witnessed here that though the regular salaried household group had the highest absolute poverty ratios in urban areas but its gap (intensity of poverty) is not high.

Since the results of incidence of poverty among the different occupational household groups discussed above are not according to the general beliefs. So going a step further we analysed it as per share of these groups in total rural and urban poverty. Figures 2 (A) and 2 (B) presents these results which help us draw a clearer picture with respect to the nature of the rural and urban poverty of the State from the occupational household group point of view. The former figure reveals that the total state rural poverty has its largest share from the self-employed in agriculture household group (48.00 percent) and lowest from agricultural labour group (5.00 percent).

Figure 2 (A): Percentage Share by Household Types to Total Rural-poverty

Source: Authors' Compilations

Figure 2 (B): Percentage Share by Household Types to Total Urban-poverty
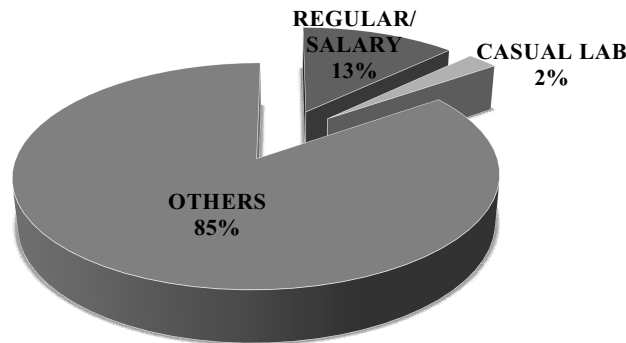
Source: Authors' Compilations

The latter figure portrays the picture about the contribution of each household group into total State urban poverty. The largest share of the total State urban poverty comes from other household group with 85.00 percent share. Then, we have regular salaried household groups with 13.00 percent share and the casual labour household group with 2.00 percent share. However, at last place, it is the self-employed households with nil contribution towards the total State urban poverty.

Therefore, from both the figures we witnessed that Self-employed in Agriculture in terms of rural and other household group in terms of urban, play an important contributory role in the total State poverty.

Section V: Poverty share by Religious Groups

According to the NSSO, there are eight major religious groups at national level but in J&K state there are only four major groups. These are Hinduism, Islam, Christianity and Sikhism and one minor religion that is Buddhism. However, there is no population of Buddhism in rural areas in the State. A study by (Arvind Panagriya, 2013) also supports it.

Before going into the shares of poverty by these religions let's look quickly at their rural poverty ratios as per URP method, it is the highest in Christianity religion with 81.88 percent followed by, the Hinduism with 23.65 per cent, Islam with 19.33 per cent and the Sikhism with 3.57 per cent at second third and fourth place respectively. While, talking about the urban poverty ratios, Christianity religion again ranks first 96.86 per cent followed by Islam with 10.45 percent, Hinduism with 5.45 percent and Sikhism with 0.81 percent respectively. Therefore, it is said that the urban areas of the state has wider variations of poverty ratio than the rural areas among the religions. Hence, on the basis of above information, it indicates that the differences in poverty rates between Hinduism and Islam have been smaller in the rural areas than in urban areas. Therefore, the common impression shows that differences in poverty rates are significantly higher among Islam and Hinduism in the urban areas.

This fact has been supported by the study (Arvind Panagriya, 2013).

When we compare the share of these religion groups in the total State poverty and population in the figures 3 (A) and (B), we can conclude that Islam religion group has the largest share in the rural poverty of the State (55.1 percent) and Hindu religion has 43.6 percent, the second largest share. However, if we compare the share of poverty with the share of population by these two religions, it is found that the former has lesser share in the rural poverty than in the total rural population (57.8 percent). At the same time, the latter has greater share in the rural poverty than in the total rural population (39.6 percent) of the State. Likewise, Christianity religion also has greater share in the rural poverty (0.7 percent) than in the total rural population (0.2 percent) and on the other hand, Sikh religion has lesser share in the rural poverty (0.6 percent) than in the rural population (2.4 percent).

Fig 3(A): Percentage Share by Religious Groups (Rural)

Source: Authors' Compilations

Figure 3 (B): Percentage Share by Religious Groups (Urban)
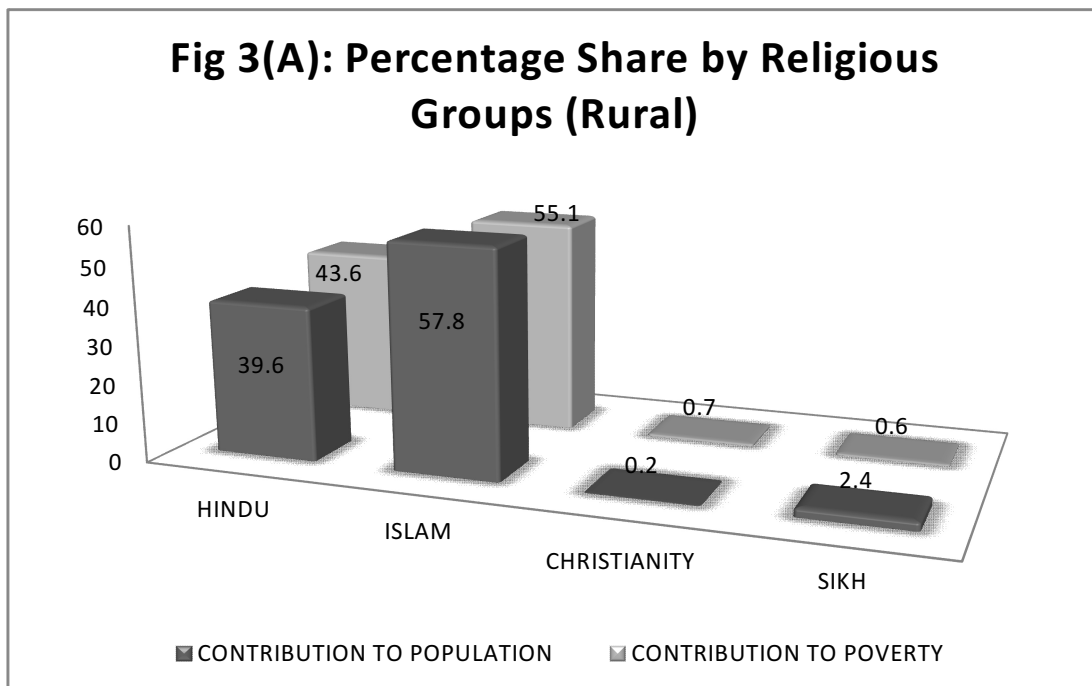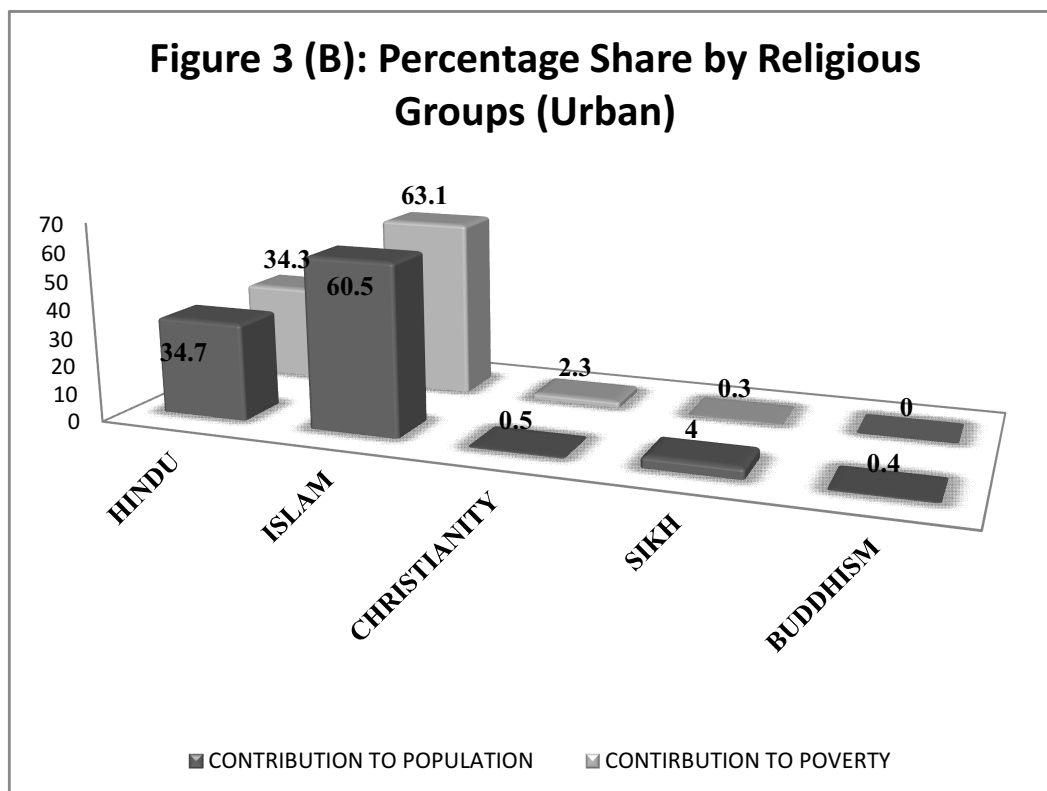
Source: Authors' Compilations

With respect to the urban poverty, it is Islam and Christianity religion households that has greater incidence of poverty than the rest of the religious group. However, unlike in rural poverty, here Hindu religion group has lesser share in the State urban poverty than in the total urban population.

Section V: Educational and Demographic characteristics of Poor and Non-Poor Households

It is generally accepted that poor households' characteristics are distinct from the non-poor households. These are generally accepted to be a heterogeneous lot which differ one household from the other on the basis of the family, their household composition, employment status, social status etc. Thus, it becomes mandatory to check out some common attributes in them which make them distinct from the non-poor. In order to compare the poor households from the non poor firstly the sampled households have been classified into two groups namely the poor and the non-poor on the basis of their poverty status determined by the poverty line. Then, most prominent characteristics either demographic or socio-economic have been chosen to differentiate the poor and non-poor. This exercise has been done particularly from URP point of view.

Table 4: Demographic and Educational characteristics of Poor and Non-Poor households

Characteristics	Rural			Urban		
	Poor	Non-Poor	Incidence Of Relative Deprivation	Poor	Non-Poor	Incidence of Relative Deprivation
1. HOUSEHOLDSIZE:						
1	0.6	2.2	.27	0.7	5.0	.14
2	1.3	3.6	.36	1.1	6.1	0.18
3	4.4	8.8	.5	2.9	14.3	0.20
4	13.2	17.1	.77	5.6	21.9	.25
5	14.2	23.6	.60	19.7	22.1	.89
6	21.0	20.8	1	16.6	12.9	1.28
7	15.0	10.3	1.45	7.6	7.8	.97
>7	30.4	13.4	2.26	45.7	9.9	4.61
2. AGE OF THE HEAD:						
<24 AGE	0.14	2.1	.06	1.69	3.09	.54
25-34 AGE	14.59	11.3	1.29	12.65	12.91	.97
35-50 AGE	48.49	50.54	.95	34.79	49.39	.70
51-60 AGE	18.99	20.77	.91	37.41	16.42	2.27
>60 AGE	17.76	14.9	1.19	13.43	18.16	.73
3. GENDER OF THE HEAD:						
MALE	91.5	93.9	.97	95.8	91.1	1.05
FEMALE	8.5	6.1	1.39	4.2	8.9	.47
4. LEVEL OF EDUCATION OF THE HEAD:						
NOT LITERATE	67.4	49.3	1.36	67.9	26.1	2.60
LITWITHNOFORSCHL	---	0.5	---	NIL	NIL	---
LITBELOWPRI	5.2	3.1	1.67	2.4	1.3	1.84
PRIMARY	10.5	8.6	1.22	5.6	7.8	.71
MIDDLE	10.6	17.6	.60	21.8	16.8	1.29
SECONDARY	5.2	13.4	.38	2.4	23.8	.10
HIGH SECONDARY	0.2	3.3	.06	NIL	7.4	---
DIPLOMA/CERTIFICATE	---	0.3	---	NIL	1.0	---
GRADUATE	0.9	3.1	.29	NIL	1.4	---
P.G. & ABOVE	0.6	---	---	NIL	4.3	---

The first characteristic that we are dealing with is the household size and it is one of the most important demographic attributes of the households and it helps in determining the total consumption requirements of the family and the workforce unit. The table reveals that as the size of household increases the incidence of poverty also increases irrespective of the sectors. Arvind Panagariya (2013), "Poverty declines steadily for each household size and it declines faster in the second than the first period. Poverty levels are higher in the larger households. Households with two or less members are subject to low poverty levels in both rural and urban areas". The average size of the rural poor households and non poor-household is 6.69 and 5.43 persons per household respectively. In urban areas, 7 and 4.83 persons per household are average size of the poor and non poor household respectively. It is found that almost a half of the total poor household (that is 45 percent) is coming from those households where size is larger than the average size of the poor household in rural areas. This percentage is 24 in case of non-poor households. In urban areas, the same kind of phenomenon has been observed. Approximately 53 percent of the poor households in urban areas consist of households which are greater than the average sized. But, it is approximately only 18 percent in case of the non-poor households. Therefore, it can be seen that poor households are featured by relatively larger family size than their counterparts.

The age of the head is also considered as one of the attributes which differentiate the poor households from the non-poor households. But, the table makes it evident that the age of the head does not have a significant impact on poverty status of the households in both rural and urban areas of the State.

It is widely accepted that the gender of the head of household does differentiate the poor households from the non-poor households. With the help of the Table 4 above it is observed if the head of the household is a female then the probability of that household to be poor increases in rural areas. In rural areas, out of total poor households, 91.5 percent and 8.5 percent belongs to female and male headed households respectively, while in case of non-poor households the 93.9 percent and 6.1 percent belongs to male and female headed households respectively. However, if we combine both poor and non-poor households together then 93.5 percent and 6.5 percent belong to male and female headed household respectively. Hence, it can be concluded that in rural areas the female headed households tend to fall into the poverty easier than their counterparts. But, this is not so in urban areas as the chance to fall into poverty rather increases when the household is headed by a male. It is generally argued that the earning capacity of male is greater than female. Therefore, if the head of the household is a female and moreover she is a widow then it is very much possible that the household earning capacity would be low. This is supported by the results in the Table 4 both in the rural and urban areas.

The level of education of the head also plays a vital role in determining the income earning capacity of the household. It is generally believed that if the head of the family is literate and employed as well he would send his or her children to school. Hence, the next generation of the family will be literate. According to Arvind Panagariya (2013), "Unsurprisingly, no matter which year or region we consider, the higher the level of education of the head of the household, the lower the poverty ratio. Even in rural areas, rising level of education of the head of the household is associated with sharply declining poverty rates". Because it increases the income earning capacity of the household and household could come out of the poor group. This phenomenon is highly visible in both rural and urban

areas. It is clear from the data above that in case of majority of the poor households (67.4 percent) their heads are illiterate. As against this, 49.3 percent of the non-poor household have illiteracy of the head. Thus, it indicates that illiteracy of the head increases the chance of the household to be poor. Moreover, it is very much visible from figures that the proportion of poor households increases as we follow the route from bottom end poverty gap and above level towards the top end, that is, not-literate level. It is further visible that the differential between the poor and the non-poor households gets sharpened and at the same time favour in the latter as we move along the route towards the not-literate level.

Section VI: Summary

To recapitulate, the main findings of the paper are:

1. The State level poverty ratios show that the rural poverty ratio is greater than urban poverty ratio as per both URP and MRP based method.

2. Generally the socially backward castes are considered to be the ones with higher poverty rates and this has been supported by the paper also. As per URP based poverty ratio, the rural poverty rate is the highest in case of ST groups while other (General) has the lowest poverty ratio. The urban poverty rate is the highest in SC while the ST group has nil poverty. In case of MRP based poverty ratios, the ST group again has the highest rural poverty and the other (General) category has the lowest. But, the urban poverty is the highest in SC category and the lowest in ST category.

3. Further, it is found that in urban areas, the URP based poverty ratio is the highest in regular salaried group and the lowest in self-employed group. It is also found that the regular salaried group has the highest MRP based poverty ratio and the casual labour group has the lowest poverty ratio. However, in rural areas, the other labour (casual and manual) household type has highest and other household type (mainly regular salaried households) has the lowest poverty ratio as per both URP and MRP based methods.

4. Among religious groups, it is found that Christianity is the religious group with the highest rural as well as urban poverty rate according to both URP and MRP method it might be due to its small population. However, while talking of its percentage share, it is not impressive, as the highest share towards the total poverty of the state comes from Islam religious group.

5. The household indicators like its big size and gender (female) of its head are important characteristics which help in distinguishing the poor households from the non-poor households.

References

Bhasin, R. (2001). Urban poverty and urbanization. New Delhi, India: Deep-Deep Publications Pvt. Ltd.

Bourguignon, F. (2004). The poverty-growth inequality triangle, International Council for Research on Indian Economic and Relation, Working paper 125, http://icrier.org/pdf/wp125.pdf.

Deaton, A. And Dreze, J. (2002). Poverty and inequality in India: A re-examination. Economic and Political Weekly, Vol. 37 (36), 3729-48.

Government of Jammu and Kashmir (2016), District Statistical Handbook Leh-2016-17, Ladakh Autonomous Hill Development Council, Leh-Ladakh, Available at: https://leh.nic.in/document/districtstatisticalhandbook-2016-17/ Accessed on 14 January 2019.

Hashim, S. R. (2007). Poverty and inclusive growth. The Indian Economic Journal, 55 (2), 3-23. https://doi.org/10.1177/0019466220070202.

Himanshu. (2007). Recent trends in poverty and inequality: Some preliminary results. Economic and Political Weekly, Vol. 42 (6), 497-508.

Julka, A. C. (1986). Analytical analysis of inequality and poverty amongst cultivating households: A case study of District of Patiala (Punjab), India (Ph.D's Thesis). Panjab University, Chandigarh.

Mahendra D. S. and Ravi, C. (2007). Poverty and Inequality: All India and States, 1983-2005. Economic and Political Weekly, Vol. 42 (6), 509-521.

NSS Report (2007), Informal sector and conditions of employment in India 2004-05, Report no. (519), Ministry of Statistics, Planning and Implementation, Government of India.

Panagariya, A. & More, V. (2013). Poverty by social, religious and economic groups in India and its largest states 1993-94 to 2011-12. Retrieved from http://indianeconomy.columbia.edu/sites/default/files/working_papers/working_paper_2013-02_final.pdf.

Panagariya, A. & Mukim, M. (2014). A comprehensive analysis of poverty in India, Asian Development Review, Vol. 31(1), 1-52.

Prashan, K.N. (1980). Problems of economic development in the Third World: With special reference to India .New Delhi, India: Sterling Publishers.

Planning Commission (1993), Committee Chaired by Prof Lakdawala in 1989, Govt of India, New Delhi

Planning Commission (2009), Expert Group on Methodology for Estimation of Poverty, Government of India, New Delhi. Available at: planningcommission.nic.in/reports/genrep/rep-pov.pdf. Accessed on: 23 Febraury 2019.

Reddy, S. (2007). Poverty Estimates; How Great is the Debate? Economic and Political Weekly, Vol. 42 (6), 491-496.

Sen, A. (1973). Poverty, inequality and unemployment: Some conceptual issues in measurement. Economic and Political Weekly, Vol. 8 (31/32), 1457-1464.

Singh, S. & Thakur, D. S. (2005). Extent of absolute poverty among the different socio-economic groups in the urban areas of Himachal Pradesh: A nutrition plus approach. Research Journal Social Science, Vol. 13 (3), 26-43.

Smoleniky, E. (1966). Investment in the education of the poor: A pessimistic report. American Economic Review, Vol. 56 (1/2), 370-378.

Virmani, A. (2008). Growth and poverty: Policy implications for lagging States. Economic and Political Weekly, Vol. 43(2), 54-62.

BUSINESS STUDIES

Empirical Assessment of the Role of Human Capital Innovation in Service Innovation Implementation in the Hospitality Industry

Vivek Sharma* and Dada Ab Rouf Bhat**

ABSTRACT

This study intends to examine whether hotels' human capital innovation initiative is an important predictor of its service innovation performance. For meeting the objectives of the study, the data was collected using a questionnaire from 245 staff members working in A category hotels in Jammu and Kashmir using non-probability convenience sampling technique. Structured equation modeling was used to test the hypothesis. Results revealed positive relationship between human capital innovation, service innovation and competitive advantage. The results enriched the knowledge regarding human capital innovation by revealing its influence on the hotel industry's service innovation performance in the form of competitive advantage. The study also leads to a number of future research directions for researchers as well as academicians.

Keywords: Human Capital Innovation, Service Innovation, Competitive Advantage

Introduction

The hospitality industry which includes restaurants, accommodation, transportation and entertainment businesses (Brotherton, 1999; King, 1995; Chen, 2017), has come across growing competition as its market is full of many related and substitutable service offerings (Ottenbacher, 2007). Dhar (2015) stated that the tourist hotels in India have been experiencing stiff competition. Hu et al., (2009) are of the view that visitors now a days are eyeing on innovative and exclusive experiences than what they were expecting earlier. Moreover, guests now a days cease to show the true brand loyal behavior as what they used to show in the past. They slightly prefer to stand by hotels that put forward the best value under limited budgets (Olsen & Connolly, 2000). Furthermore, the alteration in standard of living and growing social relations cause consumers to give greater concern to the quality of services. As a result hotel management must take extra care of customer needs, expectations and standards (Kandampully, 2006). Thus, it is clear that today's hospitality industry is facing a new challenge. To understand these steady market changes and cut-throat competitive forces, the service industries have to constantly come across new ways of designing services which are unique from competitors as well as bring exceptional value to the customers (Valjakka et al., 2013). Further, Hu et al., (2009) recommended that in order to deliver high service innovation performance, businesses first require growing a knowledge-sharing behavior, as well as improved team culture. Dhar (2015) advocated that service innovation behavior can be considered as the core demand of the hotel employees, that is to serve their customers in the excellent ways possible as they have underline the task of service innovation as a vital side of a firm's ability to distinguish itself from its challenges which adds more to a business's returns by adding new worth to the scheduled service offerings. A large quantity of research attempt has intended to recognize important contributors to flourishing service innovation (De Brentani, 1991; Ottenbacher, 2007; Randhawa & Praneet, 2016).

* Sr. Assistant Professor, Department of Lifelong Learning, University of Jammu, Jammu, India (corresponding author)
** Research Scholar, Department of Commerce, University of Jammu, Jammu, India

Empirical Assessment of the Role of Human Capital Innovation in Service
Innovation Implementation in the Hospitality Industry

For the hotel industry, human resources management is extensively acknowledged as one of the main powerful factors for the success of service innovation as workforce is the one that is well acquainted with customers and at the same time are determinant of the worth and features of the service lastly provided (Ottenbacher, 2007). Chang et al., (2011) assert that human resource management practices (that is selection and training) act as the antecedents of incremental and radical innovation in hotel industry which implies that human's service information and skills build up inside an employment association encompasses the primary foundation for a business's service innovation performance. This further indicates the vital task of business's training programs for its flourishing service innovation development. In hospitality literature, studies on service innovation as well as its antecedents are acutely scant (Ottenbacher, 2007). Even if training as an antecedent is not new since its value and payback have been well acknowledged in hospitality literature (Cho et al., 2006; Enz & Siguaw, 2000; Namasivayam et al., 2007), there has been no research effort identifying the connection between human capital innovation, service innovation and as well as its performance. To bridge this gap, this study intends to empirically examine whether hotels' human capital innovation is an important predictor of service innovation. On the other hand, the study tries to find the relationship of service innovation and competitive advantage. Therefore, it is also imperative for managers to establish which extrinsic and intrinsic aspects motivate employees to engage in firms innovative activities which possibly will improve the service innovation performance for the benefit of industry.

Review of Literature

Human Capital Innovation

The notion of human capital relates to person's knowledge and capability that allows for adjustment in action and economic growth (Coleman 1988). Human capital innovation involves the shared hotel competencies to carry out the genuine solution to the knowledge of the employees and the employee's talents in relation to customer relationship and experience (Tseng et al., 2008). The adjustment of human skills is more important in successful innovation implementation (Tseng et al., 2008) as it emphasizes updation in training and investment with regard to human resources (Pine, 1992; Van der Wiele, 2007). This updation plays an important role in the success of the innovation (Olsen & Conolly, 2000; Sirilli & Evangelista, 1998). Human capital could be build up by way of formal training and education designed at modernizing and renewing one's potential so as to do as expected by the concern. Preceding studies have specified a distinction between different kind of human capital (Florin & Schultze 2000). Firm-specific human capital relates to skills and understanding that are precious only inside a specific business. For example, past researches have explored the impact of firm-related know-how inside the founding panel on the success pace of high-growth start-up firm's (Sandberg 1986). Even if firm-specific skills may offer firm a lead over its competitors due to their immovability to other firm's (Grant, 1996), the restricted quantity of communication and inter-firm response attached to those skills makes this type of human capital merely have incomplete impact on the intensity of innovative activity. On the other hand, Industry-specific human capital points to information resulting from knowledge pertaining to an industry. Some researchers have scrutinized the role of industry experience on the development and economic performance of entrepreneurial ventures (Siegel et al., 1993) as well as society (Kenney & von Burg, 1999). Previous studies have suggested that industry-specific human capital could possibly play an imperative role in nurturing innovative activity inside an industry if it is described by high class information exchange in the midst of the main players within that industry (Bianchi 2001).

Business Studies   (66)

Service Innovation

For service innovation, there is hardly any generally accepted definition available. Authors point attention to loosely coupled service elements. Still some attempts for defining service innovation are there, as Toivonen & Tuominen (2009) suggest that "service innovation is a new service or such a renewal of an existing service which is put into practice and which provides benefit to the organisation that has developed it; the benefit usually derives from the added value that the renewal provides to the customers" (Synder et al., 2016). Ostrom et al., (2010) suggests that it is the service innovation which focuses on building worth for customers as well as employees, business operators, coalition partners and the public from end to end in the form of new and/or enriched service offerings, service practices and service business models. Prior studies have used different methods to explain and define service innovation, where some studies used an overall definition to state the meaning of service innovation, while other studies include dimensions or categories to define the concept (Gallouj & Weinstein, 1997). An overall definition explains service innovation by describing the innovation's core characteristics (e.g., Ostrom et al., 2010). For instance, the OECD (2005) defines service innovation as initiation of a first-hand or considerably upgraded product or process, a new marketing routine, or a new organisational method in business practices, workplace organisation, or external relations. Menor and Roth (2007) mention service innovation as either an increment to under way services or a change in the delivery process.

Competitive Advantage

To turn new ideas into innovative products and services business requires maximum exploitation of its physical, human and technological aspects to catch profitability and development (Robert & Amit, 2003). Jay Barney (1991) is of the view that resources of an organization are the key components in delivering sustainable competitive advantage. To keep themselves competitive, businesses regularly look at the way, tools and services which can prove fruitful in receiving competitive edge. To arrive at the competitive advantage companies prefer to introduce more innovative services (Noorani, 2014). The concept of competitive advantage was coined by Porter in 1985 (Porter, 1985). He listed no reference of earlier studies (Klein, 2002). Even with the change in time and substantial number of scientific works in the domain of strategic management, it is very tough to describe the term of "competitive advantage". It would be to a great extent more sensible to comprehend theoretical argument on which the notion of competitive advantages stands. Competitive advantage is achieved when an organization extends or gains a set of attributes that permit it to go on better than its challengers (Wang, 2014). In other words, competitive advantage is said to be achieved when actions of a particular organization are more lucrative than its market competitors in the form of market share, quality of product and any technological differences (Huff et al., 2009). Therefore it can be understood as a sine qua non for attainment of victory (Haffer, 2003). A normally accepted approach to the topic is soundly expressed in Grant's simple statement - if the firm is to prosper within the industry it must establish a competitive advantage over its rivals (Grant, 2010). In the modern-day hypercompetitive and rapidly developing multifaceted business environment it is more and more tricky to achieve this.

Research Framework and Hypotheses Development

On the basis of extensive review of literature and gap identified, the study proposes the conceptual framework. Figure 1 represents the conceptual model and accordingly the hypotheses have been framed. The model shows path from human capital innovation as an antecedent towards service innovation which in turn leads to competitive advantage.

Empirical Assessment of the Role of Human Capital Innovation in Service
Innovation Implementation in the Hospitality Industry

Human capital innovation and service innovation

Human capital rests on the basic assumption that humans own skills and abilities that can be improved and adjusted the way in which people proceed (Becker, 1964). Human capital is recognized to be personified in the skills, knowledge and proficiency that workforce have. Moreover it has been confirmed to be a vital foundation of competitive advantage to individuals, organizations, and societies (Coleman, 1988; Gimeno et al. 1997). Human capital innovation involves the shared hotel competence to carry out the genuine solution to the knowledge of the employees and the employee's talents in relation to customer relationship and experience (Tseng et al., 2008). The adjustment of human skills is more important in successful innovation implementation (Tseng et al., 2008). It emphasizes update in training and investment with regard to human resources (Pine, 1992; Van der Wiele, 2007). This updation plays an important role in the success of the innovation (Olsen & Conolly, 2000; Sirilli & Evangelista, 1998). Fox & Royle, (2014) concluded that human capital investment is a durable forecaster of innovation than old-style physical goods centered explainer. Higher long standing investments in human capital advance automatically to greater innovation. Furthermore, Tugores (2012) shows the positive correlation between human capital investments and innovation in the hotel industry. Concurring this, Prajogo & Oke, (2016) argues that human capital innovation is positively related to the creation of value or service innovation advantage. Grounded on this, the study led to the creation of following hypothesis:

Hyp1: Human capital innovation significantly contributes to service innovation

Service innovation and competitive advantage

In order to persist in the dynamic situations of market, businesses need to enrich their innovation competences in order to fulfill current demands as well as customer preferences to retain a long-term competitive advantage (Panayides, 2006). A glimpse at contemporary trends of successful concerns demonstrates that innovation is a requisite for long-term success, progression, sustainable performance and survival. If the business expects to be a leader, it is recommended that it should innovate its services unceasingly to build its capability and gain sustainable advantage. This suits the scene of tourism industry where service innovation is crucial for gaining sustaining competitive advantage (Camison & Monfort-Mir, 2012; Hjalager, 2010). But, still service innovations often offer a short- term advantage because the drivers that are related to the past achievement might now be irrelevant (Sakchutchawan et al., 2011). As a result, competitive advantage can be knotted to the unique value that customers acquire through the use of offerings resulting through service innovation (Chen et al., 2009). In this perspective, service innovation will boost the competitive advantage of business. Thus, we formulate the second hypothesis,

Hyp2: Service innovation has positive impact on competitive advantage

Research design and methodology

The assessment of this research is evaluated by examining the relationship between human capital innovation and service innovation. Further, the study examines the impact of service innovation on competitive advantage of the service firm. Below mentioned phases have been carried out to style this research in objective and rational way.

Generation of scale items

The scales cited in the model have been measured with the assistance of multiple-items on five-point likert scale, varying from 1 (strongly disagree) to 5 (strongly agree) to attain the uniformity. The items included in human capital innovation have been extracted from the scale of (Dakhli and

Clercq, 2004). Service innovation construct is measured using items from the literature of (Chen et al., 2009). The items for competitive advantage have been extracted from the scale of Sigalas et al., 2013. The items were modified to fit within the context of hospitality industry.

Sample design & data collection

The primary data are based on the first hand information personally collected from the staff of A category hotels located in Jammu and Kashmir. Questionnaire is prepared after a thorough discussion with the managers and subject experts, thus determining its content validity. Convenient sampling technique has been used in distributing 245 questionnaires to top and middle level employees of A category hotels, of which 215 received back and 190 are found to be valid. Further, the data were checked for normality through inspection of Box plots, which revealed 2 outliers that were excluded from the sample (Hair et al., 2009). Thus, responses of 188 employees have been used for the analysis.

Results

Measurement validation

CFA has been used to assess the validity and reliability of the constructs. Second order factor models have been designed for human capital innovation, service innovation and competitive advantage constructs after EFA. The fit indices of measurement models are found to be in line with the set criteria (Table 2). The goodness of fit indices like GFI, CFI and AGFI are all greater than 0.90 or touching the limit and the badness of fit criteria like RMSEA which should be less than 0.80 is also found to be within the acceptable criteria (Hair et al., 2009) (Table 2). Furthermore, in order to gauge the internal consistency among the items, Cronbach's alpha criterion was applied (Cronbach, 1951). All the values were found to be higher than 0.70. The assessment of scale reliability was done by examining composite reliability measure and the average variance extracted (AVE) which is depicted in Table 3. By means of confirmatory factor analysis (CFA), convergent validity was established by the magnitude standardized estimates (> 0.5) and significance of the factor loadings i.e < 0.05 (Segars, 1997).

Composite Reliability

In order to find out the internal consistency of the data composite reliability was checked which indicated a positive sign as all the three constructs human capital innovation (0.759), service innovation (0.828) and competitive advantage (0.780) were above the benchmark of 0.70 (Table 3) as indicated by Hair et al., (2009).

Convergent and Discriminant Validity

Convergent and discriminant validity are examined to test the validity of the scale. The SRW values of all the items are found to be greater than the threshold limit of .50 which indicated the existence of convergent validity. Further, to check the discriminant validity, variance extracted was compared with squared correlation of diverse scales as suggested by Fornell and Larker, (1981). The outcomes of the assessment are mentioned in Table 3. All the threshold estimates are noteworthy (P <0.05), presenting a good value of the measurement items. (Table 3).

Hypotheses testing

Structural Equation Modeling has been used to test the hypothesized relationships in the model. The overall fit measures suggest that the data provide a good fit for the hypothesized causal

model (Fig. 2). After running SEM, significant relationship of human capital innovation and service innovation was found. The results reveal significant SRW values (SRW=.725, p=0.00) indicating that the goals and objectives of a firm need to be consistent with their human capital and managers must be proactive with respect to their innovation patterns and as such our hypothesis H1 stands accepted (Table 4). In the same manner the results reveal significant SRW values and significance level between service innovation and competitive advantage (SRW=.71, p=.000), hence hypothesis H2 also got accepted.

Discussion

This study examines the role of human capital innovation in improving the service innovation capability in the hotel industry and to find out the impact made by service innovation towards boosting the competitive advantage. The path coefficient between the antecedent and outcome of service innovation for hospitality industry were both positive and statistically significant. The study puts forth plentiful important outcomes. First, this study empirically demonstrates that the innovation of human capital of service firms pays back by positively contributing to service innovation processes. Managers have to pay attention towards individual employees. Rewarding and fulfilling all their service requirements would undeniably generate a positive impact in the organization. The findings in addition point toward that service innovation has a substantial relationship to competitive advantage. The outcomes were in concurrence with the resource based view that innovation is an imperative experience and a source of competitive advantage in service industry. Hence, managers should employ or create inimitable resources to adjoin to their core competencies which can be diverse and must adjust over time.

Theoretical implications

The key point of this study is to explore how competitive advantage is influenced by human capital innovation and service innovation activities. We deem that by combining co-creation and service innovation into our investigation leading to a more ample observation of the strategic activities of hospitality industry. The outcomes of this study deliver insightful theoretical contributions specifically to the hospitality and tourism literature. First, the study explores the impact of human capital innovation on service innovation and is among the first to discuss it in hospitality literature. It contributes to the literature by proving how human capital innovation can be fruitful for the hospitality sector to gain the advantage of designing and implementing service innovation. Moreover, it elaborates how a firm can be able to attain win-win situation by considering the ideas and expectations of human capital, train them and deliver knowledge to them about tourist industry, information guides and interpretation service. Second, the study examines the impact of service innovation on competitive advantage in the hospitality industry. Furthermore, the study is unique in the sense that it empirically indicates the impact of service innovation in hospitality industry and is among the few to discuss its impact on competitive advantage in the hospitality literature. The study upholds that competitive advantage can be realised by properly involving employees in designing and implementing service innovation activities both from the technological and organizational innovation point of view.
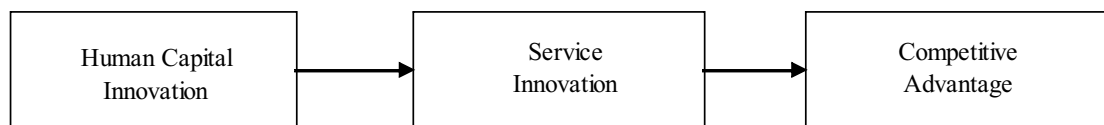
Practical implementation

The empirical findings of this study provide several important managerial implications. The finding of this study has important implications for hospitality sector as the competitiveness of hotels is highly influenced by human capital innovation and timely implementation of service innovation. The

more they focus on innovating human capital, the more productive results they will get. The current study reveals the significance of human capital innovation in designing and delivering the services so as to provide rewards in the form of improved performance which ultimately leads to competitive advantage of the organization. It recommends that employees should be trained, guided, listened and given consideration on consistent basis and their ideas as well as suggestions require to be employed more proficiently in order to survive and move in line with technological advancements and novel innovations in hospitality sector. Such tactics will not only be effective in reducing the customer complaints, but will also give boost to the organisational performance. The results of this study must inspire the hotel industry to cultivate customized training practices for personnel. Moreover, recruiting and holding talented staff with strong learning orientation would also assist the effectiveness of hotels training practices for producing additional service innovation behaviors. Further a center for service innovation with focus on business level challenges through applied approach be established and include service innovation topics such as the establishment of a trend monitoring activities for service innovation challenges, collect and share datasets, organize conferences, seminars, recognize best practices in the area of service innovation methodologies, service innovation process and business model innovations. Ultimately, hotel businesses should place a greater emphasis on providing work variety, autonomy and incentive mechanisms for employees as well.

Limitations and future research

Even though all the conceivable exertions have been employed to be in line with objectivity, validity and reliability of the study, however certain limitations have arose which can make some possibilities for future research. The present study is confined to the hotel industry of Jammu and Kashmir only, thus restricting its scope in generalizing the results. Studying hotels in a variety of states would increase the sample and would undoubtedly enhance the applicability of the results. Future studies may add antecedents like organisational innovation and external competition to service innovation construct to gauge the managers attitude and possibility of external threat to the concern.

| Human Capital Innovation | → | Service Innovation | → | Competitive Advantage |

Fig. 1: *Structural Model*
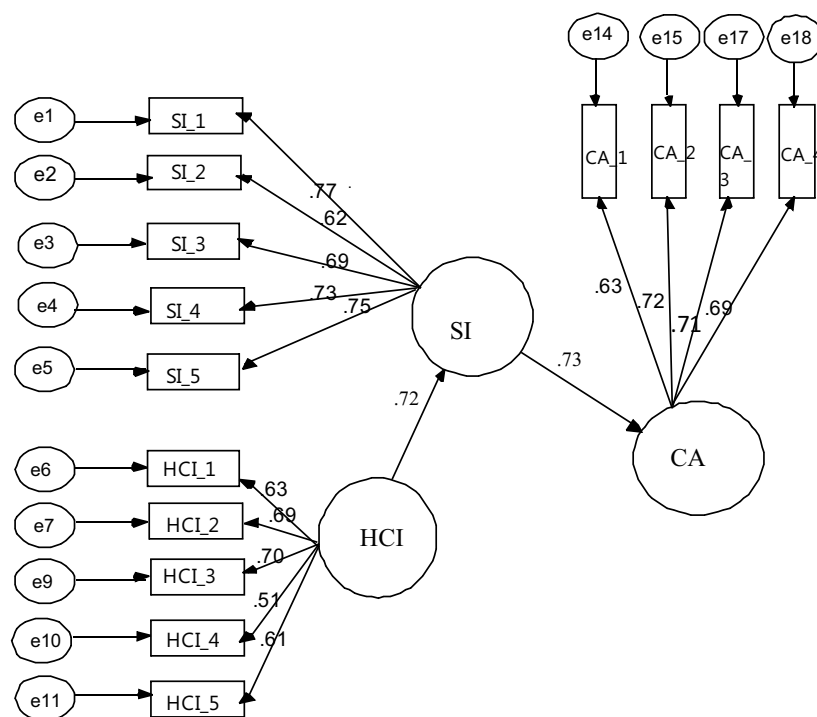
Fit Indices: χ2/df = 2.906, GFI = .996, NFI =.995, CFI .997 and RMSEA .040

Fig. 2: *Final Model*

Table 1: EFA and CFA results

Construct	Items	FL	SRW
Human Capital Innovation	Alfa=.705 , CR=.759		
	HC1- Requirement based qualification	.798	.734
	HC2- On the job training	.831	.789
	HC3- Vocational and professional training	.732	.731
	HC4- Knowledge about tourist industry, information guides and interpretation service	.825	.809
	HC5- Neat and appropriate dress up	.729	.687

Service innovation	Alfa= .810, CR=.828 ,		
	SI1-Seek new service techniques and methods	.788	.744
	SI2-Come up with innovative and creative notions	.821	.789
	SI3-Develop new businesses	.742	.721
	SI4- Delivery process	.752	.731
	SI5-Service modifications	.805	.809
Competitive Advantage	Alfa=.753 , CR= .780,		
	We exploit all market opportunities that have been presented to our industry	.819	.919
	We neutralize all competitive threats from rival firms	.726	.738
	Adopted new delivery channels	.832	.815
	Service innovation has led to cost reduction	.769	.797

Table 2: Results of Various Fit Indices

Constructs	χ^2/df	GFI	AGFI	RMSEA	TLI	NFI	CFI
Human Capital Innovation	1.337	.980	.952	.049	.930	.910	.954
Service Innovation	1.218	.973	.924	.038	.963	.922	.984
Competitive Advantage	1.291	.985	.956	.067	.980	.928	.979
Structural Model	2.906	.996	.976	.040	.998	.995	.997

Table 3 Descriptive statistics, reliability coefficients, and correlations among the variables extracted (AVE) for data (n = 190)

Constructs	Mean	CR	a	b	c
a. Human Capital Innovation	3.18	.759	(.630)		
b. Service Innovation	3.22	.828	.50**	(.659)	
c. Competitive Advantage	3.44	.780	.29**	.31**	(.698)

Note: Parentheses numbers denote reliability coefficients

Table 4: Hypotheses Result (Direct Effect)

Parameters	SRW(β)	P-value	Hypothesis	Conclusion
Human Capital Innovation → Service Innovation	.725	***	H1	Supported
Service Innovation → Competitive Advantage	.734	***	H2	Supported
Note: (**p< .01, ***p<.001)				

Empirical Assessment of the Role of Human Capital Innovation in Service
Innovation Implementation in the Hospitality Industry

References

Becker, G. (1964). Human Capital. National Bureau of Economic Research: New York.

Bianchi, T. (2001). With and without co-operation: Two alternative strategies in the food-processing industry in the Italian South. Entrepreneurship & Regional Development, 13(2), 117-145.

Brotherton, B. (1999). Towards a definitive view of the nature of hospitality and hospitality management. International Journal of Contemporary Hospitality Management, 11(4), 165-173.

Camison, C., & Monfort-Mir, M. R. (2012). Measuring innovation in tourism from the Schumpeterian and the dynamic-capabilities perspectives. Tourism Management, 33(4), 776-789. doi:10.1016/j.tourman.2011.08.12.

Chang, S., Gong, Y., & Shum, C. (2011). Promoting innovation in hospitality companies through human resource management practices. International Journal of Hospitality Management, 30(4), 812-818.

Chen, B. T. (2017). Service innovation performance in the hospitality industry: The role of organizational training, personal-job fit and work schedule flexibility. Journal of Hospitality Marketing & Management, 26(5), 1-15. DOI: 10.1080/19368623.2017.1264-344.

Chen, J. S., Tsou, H. T., & Huang, A. Y. H. (2009). Service delivery innovation: antecedents and impact on firm performance. Journal of Service Research, 12(1), 36-55.

Cho, S., Woods, R. H., Jang, S. S., & Erdem, M. (2006). Measuring the impact of human resource management practices on hospitality firm performance. International Journal of Hospitality Management, 25(2), 262-277.

Coleman, J. S. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94, 95-120.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(1), 1-14.

Dakhli, M., & Clercq, D. D. (2004). Human capital, social capital, and innovation: A multi-country study. Entrepreneurship & Regional Development, 16, 107-128. Doi: 10.1080/089856204100 01677835

De Brentani, U. (1991). Success factors in developing new business services. European Journal of marketing, 25(2), 33-59.

Dhar, R. L. (2015). Service quality and the training of employees: The mediating role of organizational commitment. Tourism Management, 46, 419-430.

Enz, C. A., & Siguaw, J. A. (2000). Best practices in human resources. Cornell Hotel and Restaurant Administration Quarterly, 41(1), 48-61.

Florin, J., & Schultze, W. (2000). Social capital and fundability of high potential new ventures, presented at the Academy of Management Meetings, Toronto, August.

Fornel, C., & Larker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.

Fox, G. L., & Royle, M. T. (2014). Human capital in service innovation strategy. International Journal of Management and Marketing Research, 7(1), 29-48.

Gallouj, F., & Weinstein, O. (1997). Innovation in services. Research Policy, 26(45), 537-556.

Gimeno, J., Folta, T., Cooper, A., & Woo, C. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. Administrative Science Quarterly, 42(4), 750-784.

Grant, R. M. (2010). Contemporary Strategy Analysis. New York: John Wiley & Sons Ltd

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. Strategic Management Journal, 17(2), 109-122.

Haffer, R. (2003). Systemy zarządzania jakością w budowaniu przewag konkurencyjnych przedsiębiorstw, Wydawnictwo Uniwersytetu Mikołaja Kopernika, Toruń.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010), Multivariate Data Analysis (7thed), Pearson Prentice Hall, New Jersey.

Hjalager, A. M. (2010). A review of innovation research in tourism. Tourism Management, 31(1), 1-12.

Hu, M. L. M., Horng, J. S., & Sun, Y. H. C. (2009). Hospitality teams: Knowledge sharing and service innovation performance. Tourism Management, 30(1), 41-50.

Huff, A. S., Floyd, S. W., Sherman, H. D., Terjesen, S. (2009). Strategic Management. Logic and Action: John Wiley & Sons, New York.

Kandampully, J. (2006). The new customer-centred business model for the hospitality industry. International Journal of Contemporary Hospitality Management, 18(3), 173-187.

Kenney, M., & Von Burg, U. (1999). Technology, entrepreneurship and path dependence: Industrial clustering in Silicon Valley and Route. Industrial and Corporate Change, 8(1), 67-103.

King, C. A. (1995). What is hospitality. International Journal of Hospitality Management, 14(3), 219-234.

Klein, J. (2002). Beyond competitive advantage. Strategic Change, 11(6), 317-327. DOI: http://dx.doi.org/10.1002/jsc.606

Menor, L. J., & Roth, A. V. (2007). New service development competence in retail banking: construct development and measurement validation. Journal of Operations Management, 25(4), 825-846.

Namasivayam, K., Miao, L., & Zhao, X. (2007). An investigation of the relationships between compensation practices and firm performance in the US hotel industry. International Journal of Hospitality Management, 26(3), 574-587.

Noorani, I. (2014). Service innovation and competitive advantage. European Journal of Business and Innovation Research, 2(1), 12-38.

OECD. (2005). Proposed guidelines for collecting and interpreting technological innovation. Oslo Manual, 1-93.

Olsen, M. D., & Connolly, D. J. (2000). Experience-based travel: how technology is changing the hospitality industry. The Cornell Hotel and Restaurant Administration Quarterly, 41(1), 30-40.

Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V., & Ottenbacher, M. C. (2007). Innovation management in the hospitality industry: Different strategies for achieving success. Journal of Hospitality & Tourism Research, 31(4), 431-454.

Panayiedes, P. (2006). Enhancing innovation capability through relationship management and implications for performance. European Journal of Innovation Management, 9(4), 466-483.

Pine, R. (1992). Technology transfer in the hotel industry. International Journal of Hospitality Management, 11(1), 322.

Porter, M. (1985). Competitive advantage. Creating and Sustaining Superior Performance, New York: Free Press, New York.

Prajogo, D. I., & Oke, A. (2016). Human capital, service innovation advantage, and business performance: The moderating roles of dynamic and competitive environments. International Journal of Operations & Production Management, 36(9), 974-994, https://doi.org/10.1108/IJOPM-11-2014-0537.

Randhawa, P., Kim, M., & Cichy, R. F. (2016). Service Innovations: What the Managers Believe and What the Customers Say. Journal of Hospitality Marketing & Management, 26(2)1-21.

Sakchutchawan, S., Hong, P. C., Callaway, S. K. (2011). Innovation and competitive advantage: Model and implementation for global logistics. International Business Research, 4(3), 10-21.

Sandberg, W. R. (1986). New venture performance: The role of strategy and industry structure (Lexington, MA: Lexington Books).

Segars, A. H. (1997). Assessing the unidimensionality of measurement: A paradigm and illustration within the content of information systems research. Omega, 25(1), 107-121.

Siegel, R., Siegel. E., & MacMillan, I. C. (1993). Characteristics distinguishing high-growth ventures. Journal of Business Venturing, 8(2), 169-180.

Sigalas, C., Economou, V, P., & Georgopoulos, N. B. (2013). Developing a measure of competitive advantage. Journal of Strategy and Management, 6(4), 320-342.

Sirilli, G., & Evangelista, R. (1998). Technological innovation in services and manufacturing: results from Italian surveys. Research Policy, 27(9), 881-899.

Synder, H., Witell, L., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Identifying categories of service innovation: A review and synthesis of the literature. Journal of Business Research, 69(7), 2401-2408.

Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. The Service Industries Journal, 29(7), 887-902.

Tseng, C. Y., Kuo, H. Y., & Chou, S. S. (2008). Configuration of innovation and performance in the service industry: evidence from the Taiwanese hotel industry. The Service Industries Journal, 28(7), 1015-1028.

Tugores, M. (2012). Human capital and innovation as determinant factors of competitiveness in
Business Studies

Homlong, N.,ed, Tourism Destinations and Tourism Businesses: Issues of Competition and Cooperation, Athens Institute for Education and Research, Athens.

Valjakka T., Kansola M., Hakanen T., & Valkokari K. (2013). Antecedents of Value Co-Creation in B2B Networks. In: Shimomura Y., Kimita K. (eds) The Philosopher's Stone for Sustainability. Springer, Berlin, Heidelberg.

Van der Wiele, T. (2007). Longitudinal measurement in organisational transformation: A case of a Dutch flex company. Service Business, 1(1), 25-40.

Wang, H. L. (2014). Theories for competitive advantage, Hasan, H. (Ed.), Being Practical with Theory: A Window into Business Research, Wollongong, Australia: THEORI, Australia, 33- 43.

Role of Information Technology for Product Distribution in Tourism Industry

Jasvinder Singh*

ABSTRACT

Information Technology (IT) has become an increasingly important feature of tourism product distribution, empowering the customer with product information and providing them with increased purchasing power. Before the information technology, travel and tourism distribution networks were not clear or visible to the customer. Most transactions occurred through a travel agent or similar intermediary and most of the activities occurred behind the scenes through custom-built technology systems. In the past, customers had limited ability to access tourism products directly and made their bookings through a chain of intermediaries where each participant has a defined role and operated in a structured environment. But nowadays, customers have the ability to connect directly with travel and tourism products through the use of the Information Communication Technology. While the traditional chain is still relevant in tourism distribution, the IT has made this chain more open, allowing industry participants and the customer to interact more directly and share at the minimum cost. With the reduction in the transactional costs, there is also a reduction in the degree of inefficiencies and uncertainty. Additionally, key changes in consumer preferences are driving both types of tourism products purchased and the way that they are purchased. These new technologies are forcing the tourism industry to make significant shifts in the way it distributes its products to potential visitors. Traditional models of the package tour are being replaced with build your own itineraries where visitors design their own travel package to align with individual interests, hobbies and activities. The present paper is an attempt to study the changing pattern of product distribution in tourism industry and to examine the impact of Information Technology on real channel business and finally, the paper tries to conduct the comparative analysis of business success of virtual and real channel in tourism industry.

Keywords: Product Distribution, Information Technology, Tourism Industry, Virtual Channel, Real Channel.

Introduction

Information Technology (IT) has become increasingly important for economic and social development. It has pervaded every aspect of human life whether it is health, education, economics, governance, entertainment etc. Dissemination, propagation and accessibility of these technologies are viewed as integral part of a country's development strategy. The most important benefit associated with the access to the new technologies is the increase in the supply of information. Information is shared and disseminated to larger audience. Secondly it reduces the cost of production. Knowledge is produced, transmitted, accessed and shared at the minimum cost. With the reduction in the transactional costs, there is also a reduction in the degree of inefficiencies and uncertainty. Thirdly it has overcome the constraints of distance and geography. IT have cut across the geographic boundaries of the nations. Buyers and sellers are able to share information, specifications, production process etc., across the national borders. It enables all to know the comparative advantage in the

* Assistant Professor, Govt. MAM College, Jammu, India

market economy. It leads to the larger markets and increased access to global supply chains. Fourthly it has led to more transparency. IT empowers the individual with the information access, which is transparent. Efforts are under way to integrate IT to all sectors and developmental activities. Tourism is one such potential area.

Tourism is currently one of the fastest gowning industries across the world. It is primarily a service industry as it does not produce goods but renders services to various classes of people. It is a combination of various interrelated industries and trade like food industry, transport industry etc. It is complicated business because it involves multiple socio-economic activities like attracting people to a destination, transporting them, housing, feeding and entertaining etc. In the process it brings about tremendous infrastructural improvements and helps in the development of the region. Perhaps tourism is one such rare industry, which earns foreign exchange without exporting national wealth. Tourism is the main stay of economics of many countries and in India it has emerged as the single largest net earner of foreign exchange. Tourism, like other economic activities flourishes best when it fits into the context of general economic policies and programmers designed to lead to the optimum growth of the economy of a country as a whole (Gupta and Bansal 2001).

Tourism industry is currently an extremely sensitive hybrid industry and incorporates distinct features of information society. Although the core product in the industry is physical service, which is produced and consumed in the physical world, it is dominated and achieved though information services. The perfect integration of information and physical services is the challenge for the contemporary tourism industry across the globe. Information systems in tourism have been among the pioneers of leading edge technology applications: Computer Reservation Systems (CRS) or Global Distribution Systems (GDS) have been among the first international inter- organizational systems. Yield management systems are among the most advanced data mining applications. Tourism marketing systems typically represent the forefront of multimedia and virtual-reality applications. The World Wide Web is profoundly changing the production, distribution and consumption of touristic products. Information technology (IT) is probably the strongest driving force for changes tourism product distribution, empowering the customer with product information and providing them with increased purchasing power. Before the information technology, travel and tourism distribution networks were not clear or visible to the customer. Most transactions occurred through a travel agent or similar intermediary and most of the activities occurred behind the scenes through custom-built technology systems. In the past, customers had limited ability to access tourism products directly and made their bookings through a chain of intermediaries where each participant has a defined role and operated in a structured environment (wyman, 2009). But nowadays, customers have the ability to connect directly with travel and tourism products through the use of the Information Technology. While the traditional chain is still relevant in tourism distribution, the IT has made this chain more open, allowing industry participants and the customer to interact more directly and shared at the minimum cost. With the reduction in the transactional costs, there is also a reduction in the degree of inefficiencies and uncertainty. Additionally, key changes in consumer preferences are driving both types of tourism products purchased and the way that they are purchased. These new technologies are forcing the tourism industry to make significant economic impact at the international, the domestic and the regional level. This impact is underlined by statistical evidence (World Travel and Tourism Council, 2004; World Tourism Organization, 1999) demonstrating the significance of tourism in terms of GDP, employment and economic development. IT facilitates integration and enables customization of tourism products to suit the needs of individuals.

Literature Review

Tourism has always been described as an information intensive domain (Buhalis, 2000; Gretzel, Yu-Lan, & Fesenmaier, 2000), where information processing and gathering is essential (Sheldon, 1997) for day-to-day operations. Furthermore, recent advances of new technologies have radically reshaped the tourism industry (Buhalis, 2003), changing both ways of communicating with prospective tourists and ways of purchasing tourism products (Werthner & Klein, 1999). On one side, tourists are using new media for communication purposes more and more, satisfying their information needs during all stages of consumption of tourism goods (Gretzel, Fesenmaier, & O'Leary, 2006). On the other side, tourism managers understand that, if properly managed, new technologies can generate a tremendous added value for their organizations. The ICT has created a new marketplace that could be characterized by commercial transaction in unlimited time and region (Reichheld, Markey, & Hopton, 2000). It is understandable that the ICT will bring a great transformation to the product distribution in tourism industry. Olsen and Connolly (2000) argued that travel companies would experience significant transformation with the increased customer base available on the Internet. Dev and Olsen (2000) discussed the role of technology and suggested that the ICT would provide great opportunities for future sales of the tourism product. As Rayman-Bacchus and Molina (2001) indicated, information and computer technology have changed the socio-economic context of travel, and they would stimulate further changes. The travel industry was seen as one of the first areas doing business electronically (Copeland & McKenney, 1988; Schultz, 1996).Additionally (Hagel & Armstrong, 1997). Armstrong and Hagel (1996) have described the online virtual channel as one of the most effective business models in the technology age; it provides great opportunities for both providers and customers. Valtersson (1996) stated, virtual channel have both lower barriers of entrance and barriers of exit than traditional or real channel

Recent studies on IT and tourism has revealed the transition in the industry as a result of IT impact and have explored its possibility and potential. Poon (1993) analyses some of the major challenges facing tourism industry and outlines the nexus between tourism and IT. The, study traces the rapid shift-taking place between 'traditional tourism sector' and 'new tourism industry. Technology has a strategic role in reshaping the value chain in the industry and in the process, consumers are gradually adapting to the new values, lifestyles and new tourism products, which have been re-engineered by the new technologies. Inkpen (1998) and Sheldon (1997) have examined the main characteristics of the industry structure and the operation of the new technologies in it.

The growing phenomenon of travel distribution through Internet and its impact on distribution channels structure and functionality is explored with rigor. Carter & Bedard (2001)and Carter & Richer (1999) have focused on the operators in the tourism industry. Developments of the e-commerce and DMO (Development Management Organizations) and their changing value chains are analyzed intelligently and clearly so that importance of internet presence for consumers, intermediaries, travel media and other players in the industry is noted and understood through their works. Marcussen (1999) attempts to provide an overview of innovative developments in product distribution of travel and tourism services in Europe. It documents the wealth of statistical data on travel and related transactions in the European tourism industry.

However, most of the experiences are based on the western developed world, which could possibly be a limitation while trying to understand the nexus of IT and Tourism in the Indian context. Jennifer *et.al* (2003) have examined the way IT and Internet have gradually changed the tourism industry in China. They have used the existing theoretical framework on IT and e-tourism developments in other parts of the world namely Europe and America to examine their impact of IT

application in the tourism industry *of* contemporary China. There have been tremendous developments at the destinations levels in the recent years. Internet and Intranet have been extensively employed by the (DMOs) which has integrated the functioning process and made the system more efficient. Studies like (Poon 1993, Sheldon 1997, Werthner & Klein 1999, Alford 2000, Werthner and Klein 1999, Alford 2000, WTO 2001) have revealed that Internet and strategic implementation of IT is now critical for companies to survive in the global economy.

However, not many efforts are made to study e-tourism developments in India and other developing countries. Thus; from the above literature review the following assumptions are postulated:

H1: Application of Information Technology has a significant impact on Real Channel Business.

Objectives

1. To study the changing pattern of product distribution in tourism industry.
2. To conduct a comparative study of virtual and real channel for product distribution in tourism industry.
3. To examine the impact of Information Technology on real channel business in Tourism Industry.

Research Methodology

The present research is empirical in nature wherein detailed attempt is made to study the changing pattern of product distribution in tourism industry in select cities of north India have been taken as the representatives of the tourism industry due to the fact that investments on information technology in tourism industry is found to be relatively higher than the other industries. The selection of this industry is also justified on the basis of higher applicability of information technology. A set of respondents with appropriate sample design, that is, managers have been selected to respond to Information technology.

Data was collected using a self-structured questionnaire, using a convenience sampling technique. A convenience sampling technique was used to directly engage employees, who were providing tourism services. Thus, the sample size was 100.

Changing pattern of product distribution in tourism industry

The dramatic changes in the tourism market place, including the use of technology and the shift to a more consumer-driven market, have triggered significant changes in the way in which tourism products are distributed and sold. In 2007, approximately 70 percent of online travelers bought travel online, compared to 63 percent in 2006 (from The PhoCus Wright Consumer Travel Trends Tenth Edition). While social media is widespread, destination websites and online travel agencies are favored by nearly half of next generation travelers during the travel shopping process. Almost half of U.S. travel is now booked online this $70 billion spend is expected to rise shortly to $100 billion (World Travel & Tourism Council, 2007). In 2008, 98 percent of Visit Britain's global customer business was conducted online compared to 40 percent eight years ago. Each month, nearly 250,000 visitors turn to the Visit Britain website to find everything from suggested itineraries to special discount packages at the country's best hotels, restaurants and attractions (Visit Britian Goes Solely Online, 2008).

A new PhoCus Wright study determined that search and shopping sites are having a major impact on the travel category. Just over half of the top 200 travel websites in February, 2008 were

booking sites. The remaining were referral and media sites, which attract travel shoppers with expert and traveller-generated reviews, meta-search capabilities and maps of travel destinations.

As previously stated, the trend for U.S. travellers to book online is growing, with almost half of U.S. travel now being booked online. For U.K. travellers, the IT is the key source to organize the itinerary, as well as agent brochures. Germans utilized the internet as the key source to select airlines, hotels and/or packages. They arrange itineraries, have some concrete details and then go to a travel agent to help them with further constructing and finalizing it and getting everything in order. In France, age and familiarity with the destination are key factors in online trip planning.

A good online presence is critical to the future of the tourism industry, both as a differentiator (to help customers plan where to go and what to do) and as a business qualifier (to investigate specific suppliers and ultimately make a purchase). For any consumer, the website is now the front door to their travel experience. As one travel industry insider noted, the first contact with consumers is not when they walk into your hotel or onto your cruise ship or plane, but when they see you on the internet. Now travellers visit a travel agent, they usually know which country they want to visit. For example, in 1997, 73 percent of U.K. travellers said that travel agents were influential in choosing Canada. Today, only 7 percent in the U.K. say that travel agents have any role in their choice of Canada.

IT has provided a common platform to reach the market and become an increasing important feature of tourism product distribution, empowering the customer with product information and providing them with increased purchasing power. With the Internet increasingly being utilized as a source of inspiration, a planning tool and a booking agent for potential tourists, the Internet has become the new travel agent. Additionally, key changes in consumer preferences are driving both the types of tourism products purchased and the way that they are purchased. Changes in global demographics, education levels, leisure time, travel experience and the focus on the environment are forcing the tourism industry to make significant shifts in the way it distributes its products to potential visitors

Comparative Study of Virtual and Real Channel for Product Distribution in Tourism Industry

The rapid growth of the travel industry requires sophisticated Information Technologies (ITs) for managing the increasing volume and quality of tourism traffic. Prior studies have indicated that modern travelers demand more high quality travel services, products, information, and value for their money (Christian, 2001; Lubetkin, 1999; Samenfink, 1999). The emergences of new tourism services and products, coupled with a rapid increase in tourism demand, have driven the wide-scale adoption of IT in general, and in particular, the Internet as an electronic intermediary. In other words, the internet serves as a new communication and product distribution channel for e-travelers and suppliers of travel services and products. This new channel also enables tourism businesses to improve their competitiveness and performance. Tourism researchers have emphasized the importance of the virtual channel on travel and tourism. For tourism suppliers, the IT provides a way for them to sell their products globally to potential travelers at any time. These suppliers can remotely control their servers to display information on services/products at an electronic speed (Inkpen, 1998; Law, 2000). The successful factors for a travel website, from a supplier's perspective, are lower distribution costs, higher revenues, and a larger market share. For travellers, the IT allows them to communicate directly with tourism suppliers to request information, and to purchase products/services at any time and any place (Olmeda and Sheldon, 2001). To the extent that the IT enables e-travelers to easily arrange and purchase their own services/products

In the past, real channel dictated demand, today, the reverse is true. Now there is a high

degree of product saturation in the marketplace and ready customer access to heavily marketed global product supply. Consumers are becoming more self-assertive and, thus, able to determine profitability in the tourism industry.

In real channel system travelers have a limited ability to purchase tourism products but in virtual channel, travelers turn to the internet both for information gathering as well as eventual reservations. Internet also provides pricing information, price perceptions are fairly accurate, and customers are more deal-savvy. Customers use multiple sources for information gathering and are better informed when they come to make their booking. Key sources to be managed include:

- Direct / first port of call (e.g., tourist board website / destination website)
- 3rd party / aggregator (e.g., Expedia, lastminute.com etc.).
- Personal (blogs, feedback, Virtualtourist).
- Applications (Google maps, Google Earth).

The internet will continue to drive the next generation to tourism product distribution methods. The strength of the internet to both gather information and to make reservations has made online capabilities a fundamental requirement for product distribution.

In the traditional system there was no important tool to help potential visitors to look for and buy tourism products and also difficult to view destination. Tourism product distribution methods are focused on media and the travel trades, with need for more opportunities to purchase products, but with the rise of IT in tourism, buyers are now much more informed about destinations, pricing and trip planning tools. Buyers expect product distribution channels to be informative, user friendly and value-driven. The preference of the customers are also changed due to Higher levels of education and awareness and have lead to an increase in "cultural tourism" and authentic, friendly and exotic destinations, and a wider range of experiences. Now customers desire for view distinct destination that can be easily researched and purchased online.

Impacts of Information Technology on Real Channel Business

Worldwide usage and access to the internet is playing an increasingly important role in the travel planning and decision making processes of customers. Travel planning and booking are among the most popular online activities in major e-commerce markets. Research indicates that more travellers investigate their travel options virtually. During 2007, 62% of international visitors to Australia used the internet to research and gather information before their arrival (Tourism Research Australia, International Visitor Survey, year ended 2007). Online travel sales are growing at an explosive rate, with consumer travel sales in the United States hitting $79 billion in 2006 and predicted to grow at a 17% annual rate before reaching $146 billion in 2013. (eMarketer's report, Online Travel Worldwide, 2006). In the year ended March 2009, 36% of international travellers to Australia used the internet for travel bookings (Tourism Research Australia, International Visitor Survey, year ended March 2009).

More important and potentially more dangerous for travel agents is the emergence of so called online booking servers. They act as a kind of virtual travel agent or even travel supermarket providing booking facilities for air, hotel, car rentals, or holiday packages, as well as many additional information retrieval services. With respect to the tourism value chain they can be regarded as new intermediaries, setting up an additional distribution link from the CRS/GDS to the consumer, bypassing travel agents. The cooperation agreements with CRS/GDS follow from the fact that the latter are the only electronic systems available which supply both a worldwide product set as well as

the necessary reliable functionality. To the extent that the virtual channel enables e-travellers to easily arrange and purchase their own services/products, the future of traditional travel agencies becomes uncertain. In the travel and tourism context, the topic of disintermediation, that is, the elimination of the middleman by using the IT in the traveller-agent-destination/ supplier network in the travel industry, has been debated by different tourism researchers. To some researchers, the accessibility of online travel websites reduces the importance of travel agencies, and might ultimately result in travelers bypassing travel agencies altogether (Buhalis, 1998; Barnett and Standing, 2001). However, Palmer and McCole (1999) and Walle (1996) argue that a key strength of travel agencies is their ability to provide personal information and advice to travelers continuously. The role of travel agencies would consequently remain secure if their advice-offering capability were strengthened by the presence of the internet, rather than if they functioned according to the more negative image of being simply a ``booking agency''. While some tourism researchers have investigated the views of suppliers and travel agencies (Fong, 2001; Law et al., 2001) and academics and consultants (Buhalis and Licata, 2002) on the issue of disintermediation, the views of travelers have largely not been investigated. In other words, it is generally unclear whether traveler's judged travel agencies are less valuable with the presence of online travel websites. On the basis of the above review the falling graph showing that the business of real channel day by day decreases due to the increase the role of IT in tourism industry
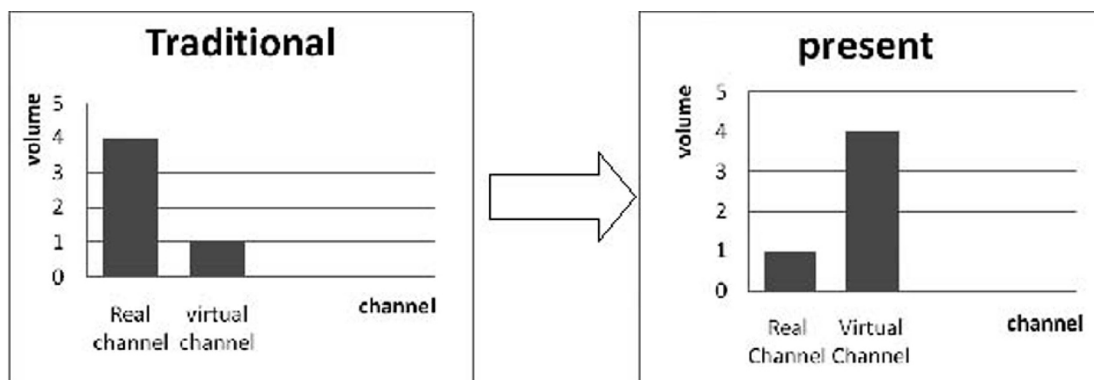
The traveler's views on the impact of the virtual channel: on travel agencies and on the potential disintermediation of the traditional distribution channel. First, since travelers generally perceive the services provided by travel agencies as important, travel consultants do not seem to worry about their future employment and the future of the travel agency sector. Second, travel agents should be aware of, and be positive towards, the fast-changing distribution environment. Although there does not appear to have been a massive loss of customers because of the presence of the internet, the impact of the technology on the entire industry is very large. Hence, travel agents have to prepare for some major changes in the industry. Lastly, and most importantly, travel agencies should not treat the Internet as a threat. Instead, travel agencies should take advantage of the Internet as a new opportunity for offering additional value-added services that could not be done in the past. For example, travel agencies should show their presence on the Internet and integrate to form large networks to extend their market penetration.

Data Analysis and Results

Hypotheses tests

The correlation was run to see the relationship between Application of Information Technology

and Real Channel Business in Tourism industry. Results revealed a few significant relationships. First, Application of Information Technology correlated significantly with Real Channel Business in Tourism industry, r (100) = 0.764.

Next, Regressions models were run to test the hypotheses. A regression was run because it allowed the simultaneous analysis of the impact of multiple independent variables (application of Information Technology) on the dependent variables (Real Channel Business). By running this form of analysis, it allowed a better picture of how multiple variables were affecting and interacting with the dependent variables.

The regression was run to see the impact of Application of Information Technology on Real channel business. The model was significant in accounting for variance in Real channel business with an Adjusted R-square = 0.579. Within the regression model, Beta = 0.764, p < .05. Thus, H1 was supported (see Table).

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	.893	.234		3.813	.000
Application	.750	.064	.764	11.711	.000

The findings from the research show that concept of Information Technology is found to be highly relevant in tourism and hospitality industry from the perspective of the managers representing the select industry. The application part of the Information Technology has also shown higher degree of applicability with regard to customer data base, problem identification, better employee software interface, real time information, on time delivery of services, process improvisation, better product development, decision making, inter-departmental communication, data accuracy, system accuracy, response time, revenue and profit management etc. In fact, the managers were found to be highly satisfied with the Information Technology support systems in performing their roles and they highlighted that Information Technology has enhances their productivity. Finally the findings on the basis of cause effect relationship revealed that Information Technology significantly impacts performance of real channel business.

Conclusion

While deregulation, technical innovation and globalization structure in the telecommunications industry has led to a process of multiple new entrants, followed by concentration and differentiation, we hypothesize a similar development in the tourism industry. Foreseen can be a further specialization, focusing on different services, but also an integration of the various players and products by a common technological infrastructure. This development is similar to that which has already occurred in the industry with the appearance of the IT. They provided a common platform to reach the market and become an increasing important feature of tourism product distribution, empowering the customer with product information and providing them with increased purchasing power. With the Internet increasingly being utilized as a source of inspiration, a planning tool and a booking agent for potential tourists, the Internet has become the new travel agent. Additionally, key changes in consumer preferences are driving both types of tourism products purchased and the way

that they are purchased. Changes in global demographics, education levels, leisure time, travel experience and the focus on the environment are forcing the tourism industry to make significant shifts in the way it distributes its products to potential visitors. The travelers' views on the impact of the virtual channel on travel agencies and on the potential disintermediation of the traditional distribution channel: First, since travellers generally perceive the services provided by travel agencies as important, travel consultants do not seem to worry about their future employment and the future of the travel agency sector. Second, travel agents should be aware of, and be positive towards, the fast-changing distribution environment. Although there does not appear to have been a massive loss of customers because of the presence of the internet, the impact of the technology on the entire industry is very large. Hence, travel agents have to prepare for some major changes in the industry. For instance, it is likely that there will be a large-scale merging of small travel agencies by large agencies to gain economies of scale. Lastly, and most importantly, travel agencies should not treat the Internet as a threat. Instead, travel agencies should take advantage of the Internet as a new opportunity for offering additional value-added services that could not be done in the past. For example, travel agencies should show their presence on the internet and integrate to form large networks to extend their market penetration.

In this new distribution model, the travel agent is no longer the primary connection point for the customer. With access to Information Technology, customers now have more options available when planning and booking travel. This means the traditional distribution chain is now supplemented, complemented and in some cases replaced by digital distribution networks focused around the internet, rather than the chain of intermediaries. Given this opening up of the market, 'distribution' must be considered from a broader view point to include all factors that influence the customer in their travel and tourism experience.

References

Barnett and Standing (2001). Repositioning travel agencies on the Internet. Journal of Vacation Marketing, 7 (2) , 143-52.

Buhalis and Licata (2002). The future of e-tourism intermediaries. Tourism Management, 23(3), 207-20.

Christian (2001). Developing an online access strategy: issues facing small- to medium-sized tourism and hospitality enterprises. Journal of Vacation Marketing, 7(2), 170 -178.

Dimitrios and Haiyan (2003). Information Journal of Information Management, 23(6), 451-467.

Fong (2001). Perception of disintermediation: a study of Hong Kong travel agencies. MBA dissertation, Hong Kong Polytechnic University, Hong Kong.

Gupta and Bansal (2001). Tourism towards 21st Century, Deep and Deep. New Delhi.Jennifer X. Inkpen (1998). Information Technology for Travel and Tourism, Addison Wesley Logman, Essex UK . services: Business issues and trends. Future, 33(7), 589605.

Law (2000). Internet in travel and tourism ± Part I, Journal of Travel & Tourism Marketing, 9 (4), 83-7.

Law and Wai (2001). The impact of the internet on travel agencies in Hong Kong. Journal of Travel & Tourism Marketing, 11(2/3), 105-26.

Lubetkin (1999). Bed-and-breakfasts: advertising and promotion. Cornell Hotel & Restaurant Administration Quarterly, 40(4), 84-90.

Olmeda and Sheldon (2001). Data mining techniques and applications for tourism Internet marketing. Journal of Travel & Tourism Marketing, 11(2-3),1-20.

Poon (1993). Tourism, Technology and Competitive Strategies, Cab International.

Rayman-Bacchus and Molina (2001). Internet-based tourism

Sheldon (1997). Tourism Information Technology, CA International, Wallingford, UK

Samenfink, W.H. (1999). Are you ready for the new service user, Journal of Hospitality & Leisure Marketing, 6(2), 67-73.

Schultz (1996). The role of computer reservation systems in the travel industry today and in the future. Electronic Markets, 6(2).

Sheldon, P. (1997), Tourism Information Technology, Cab International, New York, NY.

Valtersson (1996).Virtual community Available: www. informatik.umu.se/Bnlrg/valter.html.

Werthner and Klein (1999). Information Technology and Tourism A Challenging Relationship, Springer, Wien and New York.

Wayman (2009). Ontario Product Distribution Research Study

WTTC (1997). Travel & Tourism Creating Jobs, Brochure for the Summit of the Eight. London: WTTC.

WTO (1997). Compendium of Tourism Statistics 19911995, 17th edn, WTO: Spain.

ARTS AND HUMANITIES

Viramma: Life of an untouchable: The Subaltern Speaks

Parveen Kumari*

ABSTRACT

Dalit women in India suffer triple-oppressions of gender, caste and class and as a result face exploitation, exclusion and isolation in society. They are 'subalterns among subalterns.' Unlike Dalit men, only a few Dalit women have written about their experiences of suffering. A big obstacle in the way of Dalit women's empowerment is their lack of education. However, if given a chance, these women can narrate their happy as well as painful memories and experiences to someone who can help document their voices. Viramma: Life of an untouchable, the life narrative of a Dalit woman named Viramma, is an answer to the question 'Can the subaltern speak'? Viramma: Life of an untouchable demonstrates that subaltern can speak and break any barrier or ceiling of oppression. The present paper highlights the significance of life narrative in documenting the voice of subaltern. The paper also examines the role played by Viramma's memory in the construction of Viramma's life narrative, which in turn helps the subaltern in creating a space and identity of her own on the literary platform as well as in society.

Keywords: Dalit Women, Subaltern, Life Narrative, Memory

Introduction

Oxford Advanced Learner's Dictionary defines "memory" as one's "ability to remember things" ("memory," def.1). Memory is the mental ability of retaining, reviving and recalling facts, events, lived experiences, etc. According to Thomas Reid, "In memory, we recall…events, experienced previously" ("Reid on Memory"). He claims that memory is not only the recalling of events but it is the record how we have experienced the events. Theorists like John Locke, Thomas Reid recognize the importance of memory in the constitution of one's identity. According to John Locke, "…identity…consists in consciousness alone, and, as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person" (qtd. in Reid, *Essays on the Powers* 173). Thomas Reid observes that the relation between memory and identity is of an evidential nature. He states memories provide "first-personal evidence of personal identity" as "memories allow one to know one's own past, immediately and directly" ("Reid on Memory"). Memory is not mere recollection, it is the "reinterpretation of the past in the present" (Smith and Watson 22) and hence plays an important role in the creation and maintenance of a person's identity, not only individual but also her/his social identity as one cannot be separate from one's community: "Memory is the wellspring of both personal and communal identity….The concept of person and community are but abstract indices denoting actual lived continuities that are memory, capable of generating at any particular point in time…" (Harvey 47). Hence, it is memory which constitutes one's actual lived experiences as an individual and as member of a community which form the foundation of one's identity as a whole.

In literature, memory is important because it refers both to content of literature and its creative process. When it comes to literary texts, memory plays a crucial role in the representation of the past and hence identity because: "The construction of identity has a narrative structure that includes past events and new information resulting from negotiations between past and present experiences, anticipative predictions, dreams, and desires." It involves "the process of dealing or "appropriating"

* Assistant Professor, Department of English, Central University of Jammu, Jammu, India

the past as defined by the concepts of victimhood, painful memories, genocide, reconciliation, and mourning" (Mitroiu 2). *Viramma: Life of an untouchable* is the life story of Viramma, a Dalit (Pariah[1]) illiterate woman who did not know her date of birth and passed away in 2002. *Viramma: Life of an untouchable* is a collaborative life narrative, the result of ten years of conversation between Viramma and Josiane Racine, a researcher, who came to her village. Viramma's knowledge of popular songs and laments made her a valuable source for Josaine's "ethnomusicological research" (Hobson v). This narrative originally written in French was first published in 1995. Later it was translated into English by Will Hobson in 1997. The identity of a Dalit woman is marked and marred by twin oppressive structures caste and patriarchy which make her victim of marginalization and exploitation. And when class factor is included, she becomes triply marginalized. *Viramma: Life of an untouchable* reveals the world of an extraordinary woman living on the margins of Indian society.

Narrative is a form of literary texts that "tell[s] a story" (Bal 3). Taking a cue from this statement, "life narrative" can be defined as "a self-referential text in which the author progressively unfolds or develops the course of his/her own life" (Poitevian). The act of narration or telling about oneself "is a way of imposing a certain shape and meaning to the life that one has had." It is an act of exploration of "one's own identity and the essence of one's existence" (Bhatt 1). In *Viramma: Life of an untouchable,* Viramma negotiates from her marginal position to establish her identity as a Pariah woman. Life narrative "marshals the diverse, historically concrete stories and experiences by non-elite people" and "an act of resistance against a dominant "Cartesian" paradigm of rationality" (L. Hinchman and S. Hinchman xiv). *Viramma: Life of an untouchable* becomes the site of resistance against oppression. Viramma relies on memory to narrate the past in such a way as to situate "experiential history within the present" (Smith and Watson 22). Hence, memory serves as an important tool for the marginalized in narrating her victimization as well as for creating an identity and space of her own in both literature and society.

The close relationship between Viramma and Josiane Racine (who recorded Viramma's life story), allowed Viramma to speak more openly about herself. *Viramma: Life of an untouchable* is an answer to the question Gayatri Chakravorty Spivak raised 'Can the subaltern speak?' The narrative demonstrates that subaltern can speak and can break any barrier/ ceiling of oppression. Viramma expresses those aspects of Dalit woman's existence which "are either thought to be insignificant or too private by the conservative males belonging to both upper castes and dalits" (Singh 191). Viramma's life narrative opens with the narrated memories of her birth which was grieved over by men and women of neighbourhood: "They stopped in front of the house and seeing my father sitting near the door, his head in his hands, was all they needed to guess what sex the child was. The women recognized the high-pitched cry of a girl and shouted good-naturedly, Hey! Here's another little bitch been born!" (*Viramma* 3). The birth of a girl child has always remained an undesirable event: "…women are considered a burden to the society….The female child is not treated properly and its birth itself is considered a sad affair" (Muthulakshmi 9). Recalling her birth, Viramma enlivens the atmosphere of sadness and despondency in her house seen through the posture of her father and reactions of the neighbours.

Viramma was only eleven years old when it was decided she should be married off. She remembers the stress and worry she went through when she heard about her marriage: "When we were small, we were told to watch out for kidnappers and now, here I was going to be good as kidnapped with my whole family's blessing!" (*Viramma* 17). Nobody in the house asked her consent for marriage. So for her, marriage was her family's decision forced upon her. Besides, her father was compelled to arrange dowry for her marriage by pawning the fields to Reddi: "Dad borrowed a large

sum by pawning the two plots of land which Grandfather owned. After he'd tried to pay the interest for a long time, not to mention the loan itself, he had to give them up" (19). Thus, she was married and parted from her parental family which afterwards unable to pay the loan had to part with the fields. Girls are equated with dowry debt; parents for the happiness of their daughter(s) in marital home do cross their means to provide dowry. This sometimes results in perpetual poverty for them, moreover, there is no guarantee that the daughter would be kept happy by her in-laws. Many a time girls are constantly tortured by their husband and in-laws for insufficient dowry or to bring more dowry. Hence, dowry system plays a major role in making women's lives miserable: "Ten of thousands of women in India die each year, mostly soaked in kerosene by their husbands or in-laws and then set alight. Those who survive live with hideous scars. Commonly referred to as "victims of dowry deaths", they have become statistics" (Mala Sen, qtd. in Nubile 21).

After marriage Viramma was allowed to stay at her parents' house till she reached puberty. She recalls her experience and ceremonies attached with menstruation. She was isolated from the rest of the family: "So I was confined for eleven days and forbidden to receive anybody in my shelter, forbidden to leave it except for my daily bath, forbidden to go into the house, forbidden to touch the household crockery" (*Viramma* 32). She was forced to remain cut off from outside world: "It was a strange moment in my life: on one hand, I was rejected and confined because I was unclean; on the other I was constantly surrounded. I felt that the reason I was being cared for so well was to tear me away from childhood and throw me into the real life of an adult. A woman had to be made out of me in those eleven days" (34). Menstruation establishes a girl's identity as woman which also signals the change in the attitude of people towards her which according to Theresa E. Jackson and Rachel Joffe Falmagne leads to the rejection and alienation of girls from their own bodies. With the onset of puberty and menstruation, girls are commonly told that they have become or are on their way to become women. Some simply "rejecting this status, refusing, at the time, to consider what being a menstruating girl meant for their identity or fearing how others might react in relation to this feminizing bodily change" (388). Viramma felt the same feeling of rejection on reaching puberty: "What was a woman? I was perfectly happy being a little girl" (*Viramma* 17). Viramma's refusal of herself:

> …as a woman at menarche was based in an implicit refusal to be reduced to her bodily capacity for bearing children or to its association with motherhood the empathic and nurturing characteristics associated with mothers and motherhood…are used as a site for women's subordination. (Jackson and Falmagne 387-88)

The time Viramma spent in her parents' house made her realize her marginalized identity as a female and what it meant to be a girl. Later, when she went to her in-laws house she discovered that women "are defined and restrained by male boundaries" (Nubile 2). They are just vaginas "to be ruled and dominated by male laws" (3). A woman, when forcibly taken, resents the colonization of her body and it gets noticeable in case of poor Dalit women like Viramma where sex becomes synonymous with domination and violence. Viramma was pushed into marriage at a young age. She was ignorant of what it means to marry and was resentful towards her husband Manniakkam. After initial resistance, despite battering, Viramma ultimately surrendered to her husband's demand. The first sexual exposure remained a terrifying experience for her throughout her life as "horrible memory" (*Viramma* 44). The pain and humiliation caused by this assault left its imprint on her psyche: "The man came in last. I shut my eyes straightaway. I was curled up like a shrimp, my head in my hands….I was as still as a corpse….I was suffocating under his weight. I was trembling. I was terribly wet as if I'd pissed….It felt like he was tearing me. He roared like a lion, giving great thrusts and for once, I suffered in silence" (43-

44). In her book *Intercourse* (1987), Andrea Dworkin argues, "…sex in our patriarchal society is coercive and degrading to women, sexual penetration may by its very nature doom women to inferiority and submission…" (Khosla). This is exhibited by Viramma's husband when he forces himself on her without her consent and without making her comfortable.

Viramma faced humiliation not only at the hands of her husband but also at the hands of upper caste men for whom Dalits are untouchable but Dalit women acceptable for sexual gratification. She vehemently criticizes upper caste men's fake morality when a civil servant offered her money in exchange for sexual favour:

> The civil servant was sitting at a table near the window. When he saw me walking past, he signaled to me to come in….I went into the room, covering my back with my sari and putting my palms together respectfully. And what did I see when I raised my eyes? His dick! A fat dick! He was holding it in one hand and he had money in the other. I screamed. I was trembling all over….The schoolmaster's mother and her husband were watching the scene from their courtyard….They all thought I was going to accept his offer. I hadn't seen the Gounder watching me from the courtyard, but straightaway I walked out screaming, without daring to tell the whole story. (*Viramma* 51-52)

The civil servant offered money to Viramma as he categorized her identity as a Dalit woman who according to him would easily succumb to his advances because of money: "We Paratchi have the reputation of being easy women who'll jump into bed with anyone if they whistle….But we're not whores. Those gentlemen of the *ur* talk a lot about the uncleanliness of Untouchables, but our holes always turn them on. We're the ones they get up to all their dirty tricks with…" (52). Everybody in *ceri*[2] and *ur*[3] got to know about the incident but no action was taken against the civil servant. Everybody just let the matter die as the victim was Pariah. However, when the same civil servant did the same thing again to Tacimma, a woman from *ur*, Grand Reddi took action and the man was transferred immediately. The upper caste men due to the caste privileges possess the power to humiliate and molest a Dalit woman. In this context what Sharmila Rege in her article "Caste and Gender: The Violence Against Women in India" writes:

> In several instances the rape of Dalit women may not be considered as rape at all because of the customary access that the upper caste men have had to Dalit women's sexuality. In almost all regional languages in India the word for 'rape' is equivalent to the phrase 'stealing the honour of' and since lower caste women by the virtue of their double oppression have no 'honour' to speak of the right to redressal is often denied. (30)

holds true. It reflects the hierarchical mentality for whom Dalit women are not human beings but service givers for the sexual pleasure of upper caste men. Dalit women are relegated to low status because of their caste and they are not considered worthy of honour or dignity. Therefore, sexual harassment or rape of Dalit women by upper caste men is not taken as crime.

Viramma laments though a Pariah she used to breast feed Reddiar's[4] son when he was small thus snatching her children's share of feed but later when he grew up, he became aware of her being a Pariah. Instead of being respectful to the women who breast fed her he humiliated her:

> "I used to take him to the ceri and I fed him like my own child….And now he's, man, he doesn't respect me and if I'm at his house, in the courtyard, he says to me, 'Aye! Stop there, you! It smells of Pariah here!'" (*Viramma* 75-76).

This incident corresponds with Alice Walker's story "Am I Blue" in which Alice Walker talks about racism and how it seeps into the consciousness of white children when they grow up. In their childhood they are easily able to communicate and identify themselves with their Negro nannies, but as they grow up they acquire notion of racial differentiation: "Well, about slavery: about white children, who were raised by black people, who knew their first all-accepting love from black women, and then, when they were twelve or so, were told they must "forget" the deep levels of communication between themselves and "mammy" that they knew" (1343). Similarly, Reddiar's son became conscious and developed the notion of caste differentiation and as a result was hostile to Viramma.

Pariahs used to work in Reddiars' fields as they did not have fields of their own: "God only left us these eyes and these hands to earn our living. By working hard at the Reddiar's" (*Viramma* 156) fields. Despite their hard work they were never paid adequately for their survival: "Look at people who've got money and gnaw away at the poor's share: who insult us when we go and work for them; who don't pay us enough. We poor, what can we do? We curse them, 'Ayo! May the thunder of Heaven and the Heights fall on your skull! May you be reborn as a dog or a lizard!' That's all we can say" (150). Pariahs were aware of their exploitation but being illiterate neither they knew about the law and order nor whom to approach and complain. For them the Reddiars were the masters on whose mercy their livelihood depended. However, Pariahs' surrender to the degrading hierarchical social system was never complete. They developed their own strategies to exhibit resistance. Viramma memorizes the lyrics of a song:

Our legs stuck in the mud make us suffer

Ellamba ellan!

Have pity on us, executioner!

Ellamba ellan! (11)

which exhibits resistance "individual as well as collective" (Singh 203). The lyrics show the confrontation against the executioner, that is landlord. Viramma feared the "capacity of the powerful for…repression, and their displeasure at seeing her community make progress, however small" (Josiane Racine and Jean-Luc Racine 311), that is why she advised her son to remain humble. But it does not mean that she remained blind towards the caste atrocities. She identified caste with social and economic backwardness. Instead of hollow promises, she looked forward to some concrete action:

We haven't got a field or any land, nothing but the house we live in: so how do you expect us to live? If you really want to fight for us, the poor, give us some money to buy some land, or share out land for us to cultivate. Give us a cow, a goat, a pair of oxen and we'll be able to make our living, eat our fill and have plenty of children. They could study, have a job. (*Viramma* 182)

Viramma in her narrative acknowledges the importance of labour and knows Pariahs are indispensable: "The owners need us, Sinamma. How could the ur survive without us?" (253). Viramma, though herself illiterate, understood the importance of education as the means to attain respect and overcome caste disabilities. She worked hard to send her son Anban to school. But due to the maltreatment at the hands of the teacher: "Anban stayed…for three years, but then a new teacher came. He beat the children. Lots of times Anban wanted to stop, but I always took him back to school" (182) and because of the familial problems between her and her husband: "It was a time when my husband and I was arguing a lot…I went with the children to my brother's….I left Anban with my husband so he wouldn't miss the school….When I got back it was too late: he'd missed classes for too

long…" (183), Anban's studies came to an abrupt end. As a mother Viramma felt agonized that her son could not learn much except for a few words that he picked up at the school. Her son would have studied had the home environment being serene. Through this episode Viramma warns the readers of the adverse effects of parents' fights/separation on children.

The bond between mother and daughter is celebrated in most Dalit female narratives, for example Urmila Pawar testifies in *The Weave of My Life*: "…I started considering my mother a great support" (69). The relationship between daughter and her mother is so powerful that it affects everything in daughter's life including her self-esteem. Christiane Northrup, in her book *Mother-Daughter Wisdom* says that no other childhood experience is as compelling as a young girl's relationship with her mother: "…how our mother feels about being female, what she believes about her body,…and what she believes is possible in life. Her beliefs and behaviors set the tone for how well we learn to care for ourselves as adults. We then pass this information either consciously or unconsciously on to the next generation" (4). Viramma also refers to this connection while recalling her mother's death: "It's never the same after your mother dies…It's well known that, for us women, a mother can't replaced, even if we leave our mother's house to join a new family" (*Viramma* 131). Angela L. Cotton substantiates this statement when she says that maternal ethic offers protectiveness to the daughters and offers authentic solidarity among women: "…the maternal ethic, with its values of mutual support, trust, and protectiveness and its practice of mutual nurturing, expresses…authentic solidarity among women…" (27). Viramma recalls her mother's support, love and care which she never received from any other person in her life.

Viramma's life experiences taught her tactics of survival. According to Douglas Haynes and Gyan Prakash, resistance is ""non-confrontational" and "contestatory" and "constantly present in the behaviors, traditions and consciousness of the subaltern" having the power to "tear through the fabric of hegemonic forms" (qtd. in Bande 1). Viramma developed her own ways of resistance. One of them was her assertion of her identity as Pariah. She never called herself a Harijan: "'The Harijans!' my son corrected me, coming out of the house. 'You can keep quiet, boy, that name will never cross my lips!'" (*Viramma* 165). Pariah was her identity. She strongly felt emancipation can be won "when the dignity of crushed and the despised is recognised, first of all recognised by themselves" (Josiane Racine and Jean-Luc Racine 312). Her assertion of her identity as Pariah woman and not as Harijan was her way to resist the social structures which refuse dignity to Pariahs.

According to Chandra Talpade Mohanty, "…remembering and rewriting leads to the formation of…consciousness and self-identity. Writing often becomes the context through which new…identities are forged. It becomes a space for struggle and contestation about reality itself" (78). Viramma's articulation of her life experiences creates a literal and social space for resistance to the unjust society from where she emerges as a dignified Pariah woman. *Viramma: Life of an untouchable* is the strong, bold voice of the subaltern bringing to the forefront the oppression and silence inflicted upon her by patriarchy and casteism. Viramma's memories of past lived experiences and her consciousness of being Pariah woman weave her life narrative. Viramma's life narrative acts as a site of memory to make the subaltern speak for/about herself and in the act of speaking becomes the collective voice of the marginalized Pariah women.

Notes

1. Pariah—untouchable caste in Tamil Nadu.
2. *Ceri*—known as the 'colony' in Tamil language. The *ceri* is the part of the village, the ward, where Dalits live is separate to the main body of the village, the *ur*, where all other

   castes live.

3. *Ur*—in Tamil language it designates the village itself, as opposed to the *ceri*, the separate hamlet where Dalits live; every other caste, from Brahmins and landowning castes to the service castes like the barbers, live in the *ur* and it contains the village's main temples, dedicated to Isvaran (Siva), Perumal (Vishnu) and Pillaiyar (Ganesh), which Dalits are forbidden to enter.

4. Reddiar—is the caste title of a traditionally landowning, farming and mercantile social group of Tamil Nadu.

References

Bande, Usha. Writing Resistance: A Comparative Study of the Selected Novels by Women Writers. IIAS, 2006.

Bal, Mieke. Narratology: Introduction to the Theory of Narrative. University of Toronto Press, 1985.

Bhatt, Sanghamitra S. "Dissenting Voices: A Critical Study of Selected Nineteenth Century Autobiographies by Women." Thesis. Mohanlal Sukhadia University, 2008.

Cotton, Angela L. "On the "Res" and in the "Hood": Making Cultures, Leaving Legacies." Cultural Sites of Critical Insight, edited by Angela L. Cotton and Christa Davis Acampora, State University of New York Press, 2007. pp. 3-27.

Harvey, Barrey. Can These Bones Live? Brazos Press, 2008.

Hinchman, Lewis P., and Sandra K. Hinchman, editors. Memory, Identity, Community: The Idea of Narrative in the Human Sciences. State University of New York Press, 1997.

Hobson, Will. Translator's Note. Viramma: Life of an untouchable. By Viramma, Josiane Racine, and Jean-Luc Racine. Translated by Will Hobson, Verso, 1997. pp. v-vi.

Jackson, Theresa E., and Rachel Joffe Falmagne. "Women wearing white: Discourses of menstruation and the experience of menarche." Feminism & Psychology vol. 23, no.3, 2013, pp. 379-398.

Khosla, Tamanna. "Marital Rape in India: A Radical Feminist Perspective." Mainstreamweekly, Sept.13, 2014, http://www.mainstreamweekly.net/article5177.html

"memory," def.1. Oxford Advanced Learner's Dictionary, Seventh Edition. 2009.

Mitroiu, Simona. "Memory, Identity and Narration: A Book Review of New Work by Assman and Conrad and Tilmans, Vree, and Winter." Comparative Literature and Culture vol. 14. no. 2, 2012, https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=2060&context=clcweb

Mohanty, Chandra Talpade. Feminism Without Borders: Decolonizing Theory, Practicing Solidarity. Duke University Press, 2003.

Muthulakshmi, R. Female Infanticide: Its Causes and Solutions. Discovery Publishing House, 1997.

Northrup, Christiane. Mother Daughter Wisdom: Understanding the Crucial Link Between Mothers, Daughters, and Health. Bantam Dell, 2005.

Nubile, Clara. The Danger of Gender. Sarup & Sons, 2003.

Viramma: Life of an untouchable: The Subaltern Speaks

Pawar, Urmila. The Weave of My Life: A Dalit Woman's Memoirs. Translated by Maya Pandit, Stree, 2008.

Poitevin, Guy. "Dalit Autobiographical Narratives: Figures of Subaltern Consciousness, Assertion and Identity." Centre for Cooperative Research in Social Science, 2002, http://ccrss.org/dalitautobio.htm

Racine, Josiane, and Jean-Luc Racine. "Routes to emancipation: A Dalit Life Story in Context." Viramma: Life of an untouchable. By Viramma, Josiane Racine, and Jean-Luc Racine. Translated by Will Hobson, Verso, 1997. pp. 306-12.

Rege, Sharmila. "Caste and Gender: The Violence Against Women in India." Dalit Women: Issues and Perspectives, edited by P. G. Jogadand. Gyan Publishing House, 2013. pp.18-36.

"Reid on Memory and Personal Identity." Stanford Encyclopedia of Philosophy. Stanford Encyclopedia of Philosophy, March 18, 2009, https://plato.stanford.edu/entries/reid-memory-identity/

Reid, Thomas. Essays on the Powers of the Human Mind. Whitefriars, 1827.

Singh, Karan. Dalitism and Feminism: Locating Woman in Dalit Literature. Creative Books, 2011.

Spivak, Gayatri Chakravorty. "Can the Subaltern Speak." Mc.Gill University, Sept. 28, 2015. Mc.Gill University.com.

Smith, Sidonie, and Julia Watson. Reading Autobiography: A Guide for Interpreting Life Narratives. University of Minnesota Press, 2001.

Viramma, Josiane Racine, and Jean-Luc Racine. Viramma: Life of an untouchable. Translated by Will Hobson, Verso, 1997. [occurs as Viramma as parenthesis in the paper]

Walker, Alice. "Am I Blue." Homeworkmarket.com. Homework Market, Jan 12, 2016, https://www.homeworkmarket.com/sites/default/files/qx/15/02/25/01/1.pdf

A Postcolonial Study of the Chakma Folktales

Prasanta Chakraborty*

ABSTRACT

The article is a critical analysis of some of the Chakma folk tales that account the Chakma resistance against the colonialism to uphold the spirit of nationalism while accepting at the same time the essential technology for their livelihood.

Keywords: Folktale, North-east, Chakma, Nationalism

Introduction

The term 'Folk' has been defined by Dundes in the following lines:

> The term 'folk' can refer to any group of people whatsoever who share at least one common factor. It does not matter what the linking factor is   it could be a common occupation, language or religion   but what is important is that a group formed for whatever reason will have some traditions, which it calls its own. In theory, a group consists of at least two persons but generally most groups consist of many individuals. A member of the group may not know all other members, but he will probably know the common core of traditions belonging to the group, traditions which help the group have a sense of group identity. (Dundes, 1965, 2)

Though folk culture can't be defined in a single line, Ben-Amos attempts a definition differentiating it from other modes of communication adding that there is no contradiction between process and product:

> To define folklore, it is necessary to examine the phenomena as they exist. In its cultural context, folklore is not an aggregate of things, but a process - a communicative process to be exact.... Folklore is the action that happens at that time. It is an artistic action. It involves creativity and esthetic (sic.) response, both of which converge in the art forms themselves. Folklore in that sense is a social interaction via the art media and differs from other modes of speaking and gesturing" (Ben-Amos: 1971).

Primarily, folklore, as a form of oral literature, is handed down from one generation to the other in the form of folksongs, dances, folktales, superstitions, myths, etc., to maintain the tradition of a certain community or race. Material and non-material, verbal and non-verbal cultures- all these are covered within the broad term folklore. Michel Foucault makes a relevant observation about the author-identity of a folklore/ a folktale and a modern story teller. While naming the narrator is a process of individualising in modern literature, the narrator of folktale needs no identity. The reader too never asks for such an author-identity. Their ancientness sufficiently guarantees their status. This distinction between the modern-day litterateur and the folklorist is a replication of the socio-economic structure which indicates a transformation from a primitive society to a feudal structure followed by the bourgeois one where individualism matters more than the collective effort. Marxist critics consider folklore to be the product of collective activity which challenges the dominant culture of the capitalists and or the imperialists. In the capitalist economy, folklore faces constant threat from the hegemonic society as it is largely associated with the pre-capitalist modes of production. In spite of this, folklore

---

* Professor, Faculty of Liberal Arts, ICFAI, Tripura, India

has the ability to encounter the class enemy through its presentation of songs which bears protest in content and form. Thus, its very presence is a threat for the imperialistic culture as it has the potency to contain the hegemonic cultural activities of the leading social class. While market economy advocates globalisation adopting the life styles of dominant classes, folklore may rouse the spirit of nationalism by way of increasing the use of oral traditions that transcends the boundary of its own community. Nationalism is itself a political formation of oppositions, which Tom Nairn named as Janus-faced that looks both to the past and the future. How does this take place? While interpreting the term nationalism, A. E. Zimmer remarks that nationalism is a sentiment that shares the past glories, join hands with each other to do works that have a larger effect on the humanity as a whole and in particular a society and enjoy a common desire to do good for the people in the present state of affairs and also having a willingness to do better in the days to come. The citizens of India as a nation are made to feel the greatness of the country in terms of her culture and other related fields in the past prior to the colonial rule and how the country has to restore the pride of the nation in future while working for the common interest in the present to raise the general living standard of the citizens of the country. Rabindranath Tagore himself said in one of his patriotic song that India will regain her lost glory and will be able reclaim herself to be the best civilization in the world *(Bharat aabar jogot Sabhai strestha aashana lobe).* He defined nationalism as an organized self-interest of a populace since long past staying in a piece of land. Nationalism also includes political and commercial activities to meet the selfish ends of the people of that particular society as well as acting as a power for exploitation both within and outside its territory.

The folk cultures of a nation contribute largely to assert the cultural tradition of the past of a nation. A nation maintains an interaction between the ancient cultural tradition and a desire for modernisation and globalisation for the all-round progress and development so as to ensure social equality. Not only this, the subaltern's voice is also articulated in the folk- culture. There is hardly any scope to deny the fact that folk-culture as a whole had its contribution in the anti-colonial political and cultural movements initiated in India. The source of this folk culture comes from the rural and Tribal India, the subalterns who form the bulk of the Indian population having their livelihood on a ramshackled agricultural economy. The term 'subaltern' is derived from the work of Antonio Gramsci to designate non-elite social classes like the proletariat. Ranajit Guha and Dipesh Chakraborty focussed on the peasantry as subalterns. Gayatri Chakravorty Spivak expanded the sphere of the term to include groups even more downgraded than the peasantry or those who do not figure on the social scale at all, for example, tribals, scheduled class, untouchables and their women. These silent voices are exploited by hegemonic group within a society or a country. So, these subaltern groups revert to their folklores as a mode of silent protest against the domination of the better placed economically sound class. Whatever be the fate of these subalterns, their folk culture is so rich that the decolonisation of the psyche that Aurobindo Ghosh, Tagore, Fanon, Ngugi and other great intellectuals called for, can be attained to a great extent while embracing more on the folk-culture.

North-East India is one such part of the country wherein the dominance of the tribal population is felt very much and which is a victim of depravation by the heartland. The partition effect as well as the inroads of Christian missionaries in this part of the country put these tribal population in a challenge how to protect their culture and livelihood. Tilottoma Misra makes a re-evaluation of   the cultural heritage of the Northeast India. While doing so, she appreciates its richness and at the same time is also worried about the threats faced from the dominant cultural polity on the tribal communities

of this part of India.

> An intense sense of awareness of the cultural loss and recovery that came with the negotiation with 'other' cultures is a recurrent feature of the literatures of the seven north-eastern states. Each small community or linguistic group has responded through its oral or written communication to the encounters with the majoritarian cultures from either mainland India or from outside the borders of the country, in its own distinctive manner. (p. xiii)

All through the pre-colonial, colonial and post-colonial periods, this region saw many cultural invasions sometimes by the followers of Bhakti and at times by Christianity and the clash of cultures often resulted in the loss of indigenous beliefs and traditional forms forcing the tribal population to accept the hegemonic one. In the three major states of this part of India- Assam, Manipur and Tripura, this intermingling of culture began long before the colonial rulers came into the scene. Hindu religious sects like Shaiva and Vaishnava had their cultures influences along with Buddhism and Islam. So, there was a predominance of a mixed culture in these regions for a long time which was thwarted by the superimposition of the Eurocentric colonial culture that stood in-between the past and present of the cultural life of the people of the region. Added to this was the introduction of the printing press which needed standardisation of a language making other dialects of the language marginalised. Initially, the British colonisers wanted to impose the Bengali dialect on the Assamese and other languages in print form but met with tough resistance. But the standard version that finally took place of the Assamese language was a joint effort of the missionaries and the Assamese intelligentsia trained in the nineteenth century Bengali culture. Added to this was the huge influx from across the border as a result of partition and riot, which ultimately affected the demography of the region. The lifestyle as well as the mere existence of the indigenous people was threatened and their language and culture became endangered. Many tribes have already lost their language, culture and their folk culture.

Standardising a language essentially leads to widening of its distance between oral and written mode. Udayan Misra observes that the colonial administration encountered a polyglot culture in this region specially when they took over the administration of Assam. However, the language preferred in this part of the country by the creative writers in the postcolonial period was either English or a language of the dominant group including Bengali or Assamese in order to reach a greater number of readers in and outside the region.

Feeling threatened on this use of language of the dominant linguistic community by other creative writers of minor linguistic group, Nigel Jenkins, a Welsh Scholar, makes a pertinent comment:

> It is painful fact of literary life for certain young writers that although Khasi is their everyday medium, they are not sufficiently confident in the language to make poems in it. This real or imagined incapacity is largely the fault of an education system which obliges secondary school pupils to abandon their native tongue and matriculate in English. (p.18)

This was opposed by another great litterateur of the modern times, Salman Rushdie who feels English, as the most acceptable language in the world, should be preferred as a written mode of expression for the master pieces in any vernacular language.

It was essential that the colonized country reconstitute their identity on their own terms so that they Indianize, Africanise or Carribianise themselves. They effectively needed to give birth to a new identity, to speak in a language that is according to their preference and not imposed upon. Theorising

such processes of cultural as well as political resistance, anti-colonial nationalists saw the liberation struggle as involving a tripartite process. At the first stage, there is an attempted cultural assimilation of the native culture with that of the colonisers in the process of political reform. The second stage takes place when, at times, there are demands for self-help and self-representation. In the event of the colonial state becoming obstinate, there develops a possible third stage   revolutionary resistance. With the culture and language of the people of North eastern states, experiments are on how to standardise a dialect and to have acceptable scripts for the local languages on the one hand and how to restrict further the demographic change in the region on the other hand, which caused havoc for the oral languages and the folklores to survive. In the name of development of local languages and their lifestyle, the heartland politics streamlined the diversities of the region to fit in the structure of the language and culture of the mainlanders. Political reforms were very much needed to protect the identities of each and every tribe of this part of the country. But hardly any attention was given to this aspect until secessionism and terrorism became a grievous issue in the region. Although autonomous Tribal Councils were formed with limited administrative and financial power in the North-eastern states to protect the language and culture of the indigenous communities of this region, but the hidden agenda was to impose the language and culture of the plains. So, there are sporadic militant resistance even now though it was a daily event in all the Northeastern states till the first decade of the twenty-first century. Added to this is the newly introduced NRC bill in the Lok Sabha.

By and large, the indigenous people enjoy neither terrorism nor they support the aggression of the hegemonic linguistic communities to which they were losing their own identity, language and culture. So, they fall back on their folklores and folktales to shield their own culture as far as possible.

How far is a folklore different from a folktale? Distinguishing folk tales from folklores, Dorson makes a pertinent comment:

Folktales form an integral part of oral prose narrative tradition, an important genre of folk literature. Folk literature is a broad segment of folklore created during the most ecstatic moment of creative sensibility and is disseminated, preserved and adapted in an oral tradition. The folk literature of a country belongs to its common people whose thoughts and feelings are embedded in it in the most native, down-to-earth and spontaneous way. People since time immemorial have used it to voice or sound their experiences, to throw light on the secret of the physical world and to describe human nature and society. The folktales are deeply rooted in their social environment and are highly sensitive to individual and group sentiments. They are lucid, entertaining, engaging, easily intelligible and memorable. These tales have no fixed form in their oral stage. As long as they are told, they vary, merge and blend. But once they are put into paper, they get stiffened. (Dorson, 1972, 59)

The storytelling tradition in a face to face mode is a discrete feature of the literature of the subalterns and obviously of the literature of Northeast India considered lowly by the mainlanders. In modern times, many young writers of Northeast have come up with their folk literature representing the music, rhythm and patterns of their own language and cultures in English, many of us feel the best writing in any language 'can be read only by the readers who belong to the same linguistic community as that of the author.' (Misra, p. xvii)

Although oral literature dominates, the uniqueness of the literature in this region is that the oral and written blend together to produce a literature rich in indigenous flavour and perceptions not to be found elsewhere in the literature of the heartland with little or no political agenda unlike the African and

Native American literature. Temsula Ao observes:

> . . . the people of the North-East India seem to have attained a new 'maturity' in their perceptions about themselves, that the other of their position vis-à-vis mainland India, was not them elsewhere but very much within their own sense of isolation in an oral culture. Once articulated through the written text, similarities of world views with other cultures have helped forge new affinities, and at the same time enabled them to accept the differences as only uniqueness of any given culture rather than as denominators of any deficiency or inferiority. (p.109)

This confidence of the subalterns of this region in identifying themselves through literary activities, specially through their folk literature, thrives to communicate a message to the rest of the country and also to the world that this region is not the centre of occult worship, of tantric worship, of magic and astrology. A painful sense that the cultural activities of this region is not given suitable representation in the Indian context and is considered throughout as the colonial hinterland of Calcutta worked among the litterateurs of this part of India. Added to this is the post-partition immigration from across the border in unending flow, which brought in a demographic change and affected mostly the cultural life of the tribal and other communities of Assam and Tripura. The inhabitants living there since the colonial period, began to feel an identity crisis. Further, the intelligentsia of this region have noted with pain that there is a tendency among the heart-landers to bracket all the communities living in this region under the broad term Northeast although the diversities that each of the communities living in this region has in respect of its own history, folklores, culture identity, etc., is not readily acceptable to the postcolonial rulers of India. Referring to this, Udayon Misra comments:

> The tendency of the Indian State to treat this extremely diverse region as one unit has resulted in the growth of totally incomplete and often misconceived notions about the different states that make up the north-eastern part of the country. Such monolithic conceptions about a region which stands out for its diversity of cultures and civilisations, would only help to nourish the biases and prejudices which have marked the Indian State's approach towards Assam and her neighbours since independence. (p.3)

Despite some protests, the attitude of the Government and other major linguistic communities in the country remained unaltered. Rather, with the intrusion of the Christian missionaries into the interior hamlets of these seven states and like its predecessor, the colonial rulers, the Indian Government attempted to eliminate all the niceties of the multi-cultural activities of the communities of the region infusing the sponsored Hindi, English and Bangla culture and forcing them to tune with the dominant group of the mainland. This move has put the folk culture of the region, on the brink of an eternal loss.

Erosion of their language and culture began slowly with so many issues involved in the process. One of these factors is the process of standardisation which ultimately weakens the root of the language from its culture. With the process of modernisation on the cards, government took many welfare programs which jeopardised the age-old practices and modus vivendi. As mentioned earlier, huge influx of refugees from across the border was another major cause which brought in a demographic change. As the dominant linguistic community began taking care of the economic activities of the state, the tribal population which became minority had to interact with the dominant community adopting their culture and learning their language. The language, culture and the folklores

of the tribes in Tripura thus stood chances of losing their identity. However, both the State government and Sahitya Akademi took some initiatives to protect their culture and folklore from being lost in the oblivion. Nevertheless, an appraisal of their folktales looks as if these tales have already lost their originality because of their interaction with the dominant cultural and religious groups for years together.

Despite the prevailing colonial mentality of the state government, it yielded to the demands of the subalterns to protect the tribal languages and culture, and introduced Kokbarok as the second official language. But what about protecting the language and culture of eighteen other tribes? This question remains unanswered even today although some projects are carried out to work for the fortification of folktales and languages of other tribes in Tripura. But the government initiatives are so minimum that even the language and culture of the second largest tribal community, the Chakmas, have become endangered. So, initiatives have been taken to revive the folklores and folktales of this community and instead of restricting their folktales to their own community, the same are transmitted, mostly in the form of translation, to other hegemonic linguistic communities so that the content remains even though the flavour and sanctity of their culture are either sacrificed or ignored at times. While the content remains mostly unaltered, a sense of subaltern resistance against hegemony is predominant in those folk tales.

This paper is a brief study of some of the Chakma folktales to assess how the subalterns share in these tales their experiences of encountering colonial force. Although they do not have any written script as yet and their language not yet recognised as official language, they have a rich folk culture. The exclusivity of their lifestyle is observed in their adoption of Buddhism when other neighbouring tribes adopted either Hinduism or Christianity. Among the rural inhabitants, as Niranjan Chakma observes in his introduction, primitive animistic beliefs and rituals can be found side by side with practice of Buddhism. Chakmas lay claim on their descent from the Sakya dynasty and they believe in Gautam Buddha being among their ancestors. (p. iii) Researchers find it very interesting that the Chakma folktales are more or less bedtime stories. Niranjan Chakma makes further observation:

> Chakma folk tales are generally constructed on the Genesis, on the origin of rivers , rapids, lakes and big water bodies, on supernatural births, about origin of customs and rituals, with interpretation of apparent mysteries, of adventures in general and adventure of heroes against big snakes in particular, on transformation of man into birds and animals , on activities of Tantrics, heroes, and magicians, about victory over demons, transmigration of soul, about supernatural power and occurrences. There are also abduction and rescue of wife or any other woman, tales of test of heroism, courage, strength and intelligence. There are humorous tales and stories of cheats and gulls. Beasts-fables are quite large in number. It is common to find rhymes included in the tales, which may be considered as a distinctive feature of Chakma folk tales. Usually folk tales are short in length but many of the Chakma folk tales are of considerable length; narrators taking interest in depicting details. (p. xv)

The features of the Chakma folk tales thus mentioned is an attempt on the part of a member of the community to keep alive their own folk culture amidst the onslaught of Globalisation. Demons or their protos symbolically embody those forces accountable for shaping their lifestyle and culture. A study of some of the Chakmas folk tales shows their attitude towards colonial culture and their attachment to animism as in 'How the World was made' where banyan tree was given the credit of assisting Gozen in the process of creation of this earth. Gozen is the God of the Chakmas. The story is based on the myth of creation and was narrated orally by bujya buris (old grannies). The creation of

the earth began with the growing up of a huge tree from within the water and taking a leaf from the tree, Gozen sat on it for a long time closing his eyes. When he opened his eyes, he found a huge stretch of land with the tree at its centre. He came to know how the crab relentlessly worked to shape this stretch of land. Thereafter, Gozen made another sea, sky, Bel, Chan and assigned the duties of custodians of light and heat. Thus, Gozen created day and night. Following this, Gozen created hills, forest, valleys etc. and named the land Pitthimi. Then Gozen 'moulded a creature in the shape of his own shadow and called him Keduga after the first word he had uttered on mistaking his own shadow for a man'. (Chakma Folk tales p. 17) But how was the woman created? 'And so Gozen, the sire of all creation, scratched the filth of his own body and, accumulating it in the palms of his hand, made the woman out of it and called her Kedugi.' (ibid. p.-17-18) A sense of neglect towards the women of the family can be sensed here.

With fruits of the trees and the soft grass to sleep on the two went on reproducing. The rise of population was followed by a very bad weather and there was a food crisis. Gozen sent Kalayya to replenish the earth again with trees and fruits. But after some time, the trees could not fulfil the rising demand of the population to provide food. Then Gozen sent first Kalayya and then Biyetra to bring Mah- Lakkhi-ma to earth to solve the problems of the people. Prior to this, Biyetra came down to earth and showed the people how to light fire and cook food and build houses. After some time, he went to Mah- Lakkhi-ma along with the crab, spider and the boar. He could satisfy Mah- Lakkhi-ma and brought her to the earth. She blessed Biyetra so that he be worshipped every time before worshipping any other god. The tradition of retelling the folktales by the grannies to the younger generations is very much prevalent in almost every Indian community but making the trees a party in the creation of the earth is unique specially when cutting trees is in the agenda of Modern India. It shows the deference of the subalterns towards the trees and animals. In their folk tales, Chakmas admit the crab's role in the creation of the Earth thereby establishing a close bonding among the human beings, trees and other creatures in this case showing respect even to a crab. Their closeness with Goddess Laxmi is reverberated in the folktales when they being affected by her superior intelligence and beauty could convince them to accept her as a member of their own family, their mother, with whom they can share sufferings and pain. She puts them to tests to see how much they deserve her assistance in tiding over their distress and when they successfully pass her tests, she advises them and gives them the roadmap to success. In stories one after another, there are references of Mah- Lakkhi-ma who stays along with the distressed family clothed as a widow and the members of the family, mostly daughters or mother, share their tales of woes. Sharing with them their pains intimately, she finds out the cause of their sufferings and helps them to renounce their own lifestyle and accept her own lifestyle as in 'How the World was made'. A close reading of the folk tales also exposes the extent of inexperience these people have about the modern lifestyle. Mah- Lakkhi-ma plays the role of a social educator introducing the polity about the current trends and educate them in fine-tuning the new life style. This folk tale further confirms the close connectivity between gods, animals and human beings. Nevertheless, a differential attitude towards women folk at home and those coming from outside is very much predominant in this story. The same story of Mah- Lakkhi-ma training the Chakma people in jhum cultivation has been recorded in the story 'The First Jum'. Their association with a Hindu God may be an outcome of the dominating Hindu culture. The same goddess brings in some techniques in their lifestyles so as to grow corns and grains by themselves. This story is a continuation of the previous story when Mah- Lakkhi-ma alighted from her bird- mount and reached the earth to help the distressed people. The owl was given the duty to announce among the inhabitants the arrival of Mah- Lakkhi-ma. While it did the hard work, the gift tiara was given to the woodpecker mistakenly. The

message conveyed through this story is while the aborigines do the hard labour, the strangers reap the benefits. The Devi has the leader's qualities to guide the community in producing food crops. Therefore, she is adored by the local people although she is an outsider. She stays as an aunt of the daughters of a widower, succeeded in convincing them of her intellectual superiority and trained the inhabitants in jum cultivation and how to clear the jum land of weeds. The male ego of widower couldn't resist his curiosity for long when Mah- Lakkhi-ma prohibited the family to go to the right side of Bel (the sun) when it sets. He defied the prohibition and invited a chaos. He tried his best to restrain the growth of the weeds but failed. Mah- Lakkhi-ma explained the people the technique of cultivation of jum and taught them to manage their own food crops by dint of cultivation. Thus, the Chakma folk were regulated by the external culture right at initial stage of their civilization when they learnt how to cultivate from an outsider. This tale further shows the Chakma community's readiness to accept the superior colonial technology, for which certain conditions were imposed upon by the colonial authority.

The superiority of the colonial woman makes even the patriarch give in though women within the family are not assured the same respect. The post-colonial culture regulates the Chakma home-front with their own even affecting the food habit and culture of their community.

Mah- Lakkhi-ma is the symbol of such colonial power. She comes presumably from Bengal- a close neighbour of the Chakmas- being a technologically and culturally superior community and guides the Chakma community for a better livelihood but at the same time imposes some conditions for them to abide by, which the patriarchs in the community sometimes try to break but they are castigated for this defiance. In the rural Bengal, Ma Laxmi is a folk Devi whom the Bengali community worship for wealth and prosperity. The Hindu Bengalis are always worried lest their Devi Laxmi leave their own families. So, the Bengalis try their best to satisfy the Devi in order that she stays in a particular house for a longer period.

There is another type of female characters mentioned in those folktales women as villains as in the story 'Kahbi- Dahbi'. In this folktale, it was shown how the colonial force disrupts the peace of the family hearth putting the patriarch as if in a trance. The moral of the story as in any other fable, is the ultimate victory of the good over evil though the good has to suffer a lot by the cunningness of the evil. The male member of the family, the father of Kahbi is drawn an innocent figure too good to see through the evil plans of his second wife, a representative of the colonial force trying to exploit Khabi, the daughter by the first wife. Kahbi suffers but ultimately tides over when the King marries her and gets to know of the evil design of her step-mother and daughter.

This theme is not unique in Chakma folktales- rather, it recurs in the folktales of other neighbouring communities too, which makes a researcher question if it be the impact of some hegemonic socio-cultural activities upon the Chakma folklorist or if the recurrence is the impact of same feeling among the distressed societies. Interestingly, only the women are portrayed evil and the good incarnate in these Chakma folktales, which is an indication of the status of women in this tribal society. May be the bearing of cultural colonisation led to such a negative picture of women folk in their society.

In 'How the Moon came to have eclipse', the spokesperson of colonial culture, the chan is bitten by Narasingh, the Vaidya's loyal dog , which is counted to be a resistance against the colonial power that came down to disrupt the life of the weaker section of the society. The Chan (the Moon) represents the colonial force which tried to uproot the gen-next from its traditional culture symbolised in the growing 'immortality vine'. Chan's plan was to severe the top of the hillock 'from the base and take to a place whence Narasingh could never retrieve the vine.' (p. 46) Chan stealthily enters the

house when Narasingh was out of his house, his daughter busy in household chores and their dog sleeping on the izar (Veranda). Chan was scared as he couldn't implant his own imperialist ideology into theirs. Chan could not give back Narasingh's daughter their traditional culture inspite of the anger expressed by her. So, both her father and the dog reacted angrily- one came out with a curse while the dog bit Chan deep into his flesh- both are efforts of resistance on the part of weaker Chakmas causing some permanent, though insignificant, damage on Chan.

'Jamai Marani (The Suitor killer) is another folk tale of the Chakma community which narrates the dangerous wish to be fulfilled by the willing suitors in order to prove themselves eligible to marry the princess. Many suitors were killed trying to prove their eligibility. At last, a suitor came with whom the princess fell in love at first sight. The Chan mukhi buri

(The old granny of the Moon), a prototype of colonialism, with her better intelligence and experience dropped in the scene with a solution- how to jump from the steep hills into the river unhurt. The Prince was saved and the absurd vow was met with in this process. With her limited outlook, the princess was made the centre of all the dilemmas of the Chakma society, which begets another dimension, so to say grave, of Chakma womenfolk.

Not that the colonial IQ always proved better than the Chakmas who often proved cleverer and more intelligent as articulated in two of the folk tales 'Wisdom's foul' and 'The Tiger and the Snail'. In the former one, the owl proved to be more intelligent than the King to make him realise that the claim of the tiger defending the colonial force is not justified. Thus, the ploy of the tiger to kill the boar has been thwarted by the intelligent owl. That an intelligent and a unified community can overthrow a stronger colonial force is the theme of the folk tale 'The Tiger and the Snail'. The snail, a slow-moving creature accepts the challenge of the tiger that it would run faster than the tiger and by dint of sheer intelligence defeated the tiger, supposed to be the king of the forest.

The folk tales narrate the predicaments in the lives of the innocent and poor Chakmas and how the colonial force support them to come out of their distress laying down some conditions. As in the folktales of other communities, the animals play a vital role in the lives of the Chakma community. Animals talk like human beings and are often found to be more intelligent than the human beings. The folk tradition in the culture of many societies record the proximity between the animals and human beings. The human world depends much on their pets for their livelihood. So, these folktales introduce animals with an ability to share their feelings on certain aspects of life. Magic plays a vital role in their life as they couldn't explain many natural phenomena due to their lack of proper scientific knowledge. No doubt, this ignorance has made their life simple but at the same time, this has made them easy prey of superior forces from the modern world who are portrayed as demons. The same force is a blessing for them when it works in tandem with the poor Chakmas to lessen their present distress. Womenfolk holds a respectable position in the society but as the Chakma society couldn't keep themselves away from the spell of colonial culture, there is demonization of some women characters too making them solely responsible for the tribulations at home.

These folktales are attempts, though feeble, on the part of the Chakmas to sustain the spirit of nationalism when the Chakmas revert to the past as a mark of protest against the existing aggressive colonialism that is humiliating the spirit of nationalism in the name of globalisation. These tales take a reader back to a state which is free from any temptation of colonial culture to how colonialism gradually intrudes in the name of promoting the Chakma society. Thereafter, these tales also record the resistance that the Chakma society develops to preserve their own culture thereby upholding the spirit of nationalism.

A Postcolonial Study of the Chakma Folktales

References

Ao, Tomsula. 'Writing Orality'. Orality and Beyond, edited by Soumen Sen and Desmond Kharmawphlang. Sahitya Akademi, 2007.

Ben-Amos, D. (1971). 'Toward a Definition of Folklore in Context.' The Journal of American Folklore, Vol. 84, No. 331, Jan.-Mar.,1971, Pp.3- 15.

http://dx.doi.org/10.2307/539729

Chakma, Niranjan, ed. Chakma Folk and Modern literature. New Delhi, Sahitya Akademi, 2013.

Debnath, Rupak. Chakma Folk tales. Kolkata, Kreativmind, 2006. (All the textual references were made from this edition of the book.)

Dorson, R. M.ed. Folklore and folklife: An introduction. Chicago, The University of Chicago Press, 1972.

Dundes, Alan. The Study of Folklore. Englewood Cliffs, Prentice-Hall, 1965.

Jenkins, Nigel. 'Introduction'. Khasi in Gwalia: An anthology of Poetry and Prose from the Khasi Hills in North East India, West Glamorgan, Alun Books, 1995.

Misra, Tilottoma, ed. Writings from North East India. New Delhi, OUP, 2011.

Misra, Udayan. The Periphery Strikes Back. Shimla, IIAS, 2000.

GUIDELINES

In the present scenario it has become pertinent for institutions of higher learning to provide a platform where all the disciplines are articulated in a manner where they have their own clearly demarcated space and yet have room for dialogue, collaboration, contestation, confirmation or negation across disciplines and this necessitates the multidisciplinary approach of the journal *Researcher*.

AIMS AND SCOPE

Researcher is a bi-annual, multidisciplinary and refereed (peer-reviewed) Journal of University of Jammu that seeks to provide a specialized academic platform and reference for the dissemination of research in the broad areas of academic disciplines including Science and Technology, Arts and Humanities, Social Sciences and Business Studies. This includes both qualitative and quantitative empirical work, besides theoretical and conceptual contributions. The ambit of the Journal is international and submissions are subject to blind peer review process. The editorial policy of the Journal is to invite the research articles from academicians, researchers, policy makers and practitioners. The publication is intended for readers including litterateurs, academicians, educationists, professionals, policy makers, research scholars and students.

PUBLICATION POLICY

♦   Research articles will be considered for publication only if they fall within the ambit of aim and scope of the Journal. The research articles will be accessed on the basis of:

   a) Originality;

   b) Relevance;

   c) Quality of research;

   d) Research contribution and applied significance.

♦   The Journal does not levy any submission/publication charges. Further, the author shall be given a complementary contributor's copy of the Journal.

♦   University of Jammu owns the copyright © of the research articles published in *Researcher.* Articles published in the *Researcher* should not be reproduced/reprinted in any form without seeking prior written permission from the Convener, Publication Cell, University of Jammu.

♦   **Disclaimer:** The views expressed in the articles in the *Researcher* do not necessarily reflect the opinion of the University of Jammu.

PEER REVIEW POLICY

This Journal operates a double blind review process. All contributions are initially assessed by the Editorial Board for suitability for the Journal. Research article deemed suitable is sent to a minimum of two independent expert reviewers to assess the quality of the paper. The Editorial Board is responsible for the final decision regarding acceptance or rejection of research article based on the reviewers' comments. The Editorial Board's decision shall be final.

SUBMISSION GUIDELINES

♦ The Journal encourages the submission of works in the specified disciplines in a variety of styles including articles, case-studies, review essays, book reviews and other scholarly papers.

♦ Only original and unpublished work is sought for consideration of publication in the Journal.

♦ The submission of research articles is open throughout the year on rolling basis. Since the periodicity of the publication is bi-annual in nature, articles submitted till 30, April will be considered for June issue and till 31, October for December issue.

♦ Any research article that is identical to or substantially similar to a work already published or under review for conference / publication will not be considered.

♦ Unless expressly indicated, otherwise, all correspondence will be with the first author.

♦ Receipt of all research articles will be acknowledged.

♦ Each submission will be blind reviewed for technical merit and content.

♦ The first page of the research article should be the title page. It should contain the title of the research article and the name, designation and affiliation of the author along with the address, phone/fax number and email address of the author and co-author(s).

♦ The second page should contain the research article title, the abstract (not more than 150 words) and keywords (a minimum of 4 and maximum of 6 words).

♦ All the figures and tables should appear at the end of the research articles; should be properly numbered in Arabic notation; and bear appropriate title and labels.

♦ The research article should normally be of 3000-5000 words including figures and tables typed in double space and printed in 12-point font on A-4 size paper with 1 inch margin on all four sides. All tables and figures must be serially numbered, sequentially following references to them in the text. All exhibits should be in black and white only.

♦ The research article should not contain footnotes. References should be placed at the end of the research articles after the figures and tables. The references should mention

only those sources, which are cited in the text of the research article.

♦ The first paragraph of any section, including the introduction, should not be indented. Major headings should be left justified and bold with one line above and one line below the heading to separate it from the text.

♦ Authors are advised to follow uniform citation and referencing style throughout the manuscript. Following discipline specific reference styles are accepted:

    i. APA Style for Social Science and Business Studies.

    ii. MLA Style for Arts and Humanities.

    iii. ACS/APS/IEEE for Science and Technology.

    iv. Standard International/Indian Style approved by the University of Jammu for any other subject not covered above.

ETHICS POLICY

♦ Authors should submit only unpublished original research article that has not been submitted for publication or published elsewhere. A declaration by the author(s) should be made that the paper has not been sent elsewhere for publication. It should be made on separate sheet with the title of the research article, name(s) of the author(s)/ co-author(s) full postal address for correspondence and signature.

♦ Any research article which is found to be plagiarised or if is having text match above the standards as fixed by the Editorial Board will be rejected out rightly. Authors are required to scan submissions using plagiarism detection software before submission of research article. The author shall bear the full responsibility if any malpractice is detected. Authors involvement in any of the following will be treated as malpractice:

    a) Falsification of data

    b) Plagiarism

    c) Improprieties of authorship

    d) Misappropriation of ideas of other scholars

    e) Violation of generally accepted research practices

    f) Material failure to comply with legislative and regulatory requirements affecting research

    g) Inappropriate behavior in relation to misconduct.

In such cases the decision of the Editorial Board shall be final and binding.

♦ Authors must assign copyright of the research article in favour of the *Researcher*.

♦ Authors are advised to avoid biased language and subjective comments/opinion that don't in any way pertain to the research problem.

INSTRUCTIONS TO THE REVIEWERS

♦ The submitted research article is a privileged communication and reviewers must treat it as confidential.

♦ The reviewer must not (or allow anyone else to) retain/copy or share the research article with any one without the explicit permission of the editor.

♦ The reviewer shall not disclose his/her identity and the review outcome with anyone other than the editor of the Journal.

♦ The reviewer must return the reviewed research article within two weeks from the date of the receipt.

♦ **Evaluation Criteria:** The criteria for evaluating a research article encompasses the evaluation of the attributes as given in the following research article review form:

RESEARCH ARTICLE REVIEW FORM

✓**Rankings:** Please use the symbol (✓) to indicate your assessment
(5= Excellent, 4= Good, 3= Average, 2=Poor, 1= Very Poor, NA= Not applicable)

Sl.No.	Key Evaluation Parameters	1	2	3	4	5	N.A
1.	Originality of the work						
2.	Contemporaneity of the subject						
3.	Contribution to existing knowledge						
4.	Adequacy of empirical/theoretical back ground						
5.	Appropriateness of the research methodology						
6.	Citation and referencing as per the style						
7.	Analysis and inferences						
8.	Legitimacy of the conclusions						
9.	Applied significance						
10.	Organization of the research article						
11.	Quality of the communication in terms of use of language.						
12.	Appropriateness for publication						

Reviewers' Detailed Comments (Reviewers may use separate sheet)

1. Reviewer to comment on the strengths and weaknesses of the research paper.

2. Additional inputs to the author on how he/she can make the topic more meaningfully aligned to the discipline specific requirement.

3. General comments for improving/adding, references, clarifying data analysis, structure and format, language editing, communication, etc.

LIST OF CONTRIBUTORS

N Suresh Rao   Department of Computer Science & IT / Computer Centre Block,
University of Jammu, Jammu Email: suresh_jmu@yahoo.co.in

Monika Sharma   Department of Environmental Sciences, University of Jammu
Email: monikaevs@gmail.com

Rakesh Kumar   Department of Environmental Sciences, University of Jammu
Email: rakeshkumaratri@gmail.com

Rohit Rattan   WWF-India, Western Himalayan Landscape
Email: rrattan@wwfindia.net

Ajay Sanotra   Govt. MAM College, Jammu
Email: ajay786.jnu@gmail.com

D.S. Kshetrimayum   Department of Geology, University of Jammu, Jammu
Email: deepakshetriya@gmail.com,

Varun Parmar   Department of Geology, University of Jammu, Jammu
Email: varunparmarvp@gmail.com

Reetika Sharma   Department of Political Science, University of Jammu, Jammu
Email: reetika_raina@yahoo.com

Satish Rana   Department of Political Science, University of Jammu, Jammu
Email: satishrana017@gmail.com

Sunil Kumar   Department of Strategic and Regional Studies, University of Jammu, Jammu
Email:kumarsunil3187@gmail.com

Tsering Yangzom   Department of Economics, University of Jammu, Jammu
Email: tseringyangzomecoju@gmail.com

Reena Bhasin   Department of Economics, USOL, Panjab University, Chandigarh
Email: reena.bhasin28@gmail.com

Vivek Sharma   Department of Lifelong Learning, University of Jammu, Jammu
Email: sharmavivek@gmail.com

Dada Ab Rauf Bhat   Department of Commerce, University of Jammu, Jammu
Email: darenfbhat@gmail.com

Jasvinder Singh   Govt. MAM College, Jammu
                           Email: issajjassi@gmail.com

Parveen Kumari   Department of English, Central University of Jammu, Jammu
                           Email: pleiades.the7@gmail.com

Prasanta Chakraborty   Faculty of Liberal Arts, ICFAI, Tripura
                           Email:prasantaread@gmail.com

RESEARCHER

A Multidisciplinary Journal

SUBSCRIPTION FORM

I wish to subscribe/renew my subscription to *Researcher: A Multidisciplinary Journal* for 1/2/3 years(s). A draft/cheque bearing No. _____ dated _____ for Rs. _____ drawn in favour of Publication Cell, University of Jammu is enclosed.

Name : _____

Address   : _____

Pin _____ State _____ Country _____

Tel Number _____ Mobile No. _____

Email: _____

Signature _____

Subscription Rates (INR)			
Category	1 year	2 year	3 year
Institutional	1000	1500	2000
Faculty/Student/Scholar	500	750	1000

Researcher : A Multidisciplinary Journal is a bi-annual refereed (peer-reviewed) Journal of University of Jammu that seeks to provide a specialized academic platform for the dissemination of research in the broad areas of academic disciplines including Science and Technology, Arts and Humanities, Social Sciences and Business Studies. The ambit of the Journal is international and submissions are subject to blind peer review process. The editorial policy of the Journal is to invite the research articles from academicians, researchers, policy makers and practitioners. The publication is intended for readers including litterateurs, academicians, educationists, professionals, policy makers, research scholars and students. All the articles are considered for publication only if they fall within the ambit of aim and scope of the Journal.

Call for Papers for Next Issue

Full paper submission	October 31, 2019
Confirmation of paper	November 30, 2019
Re-submission of revised paper	December 15, 2019
Issue publication	December 31, 2019

Refer to "Guidelines" inside for details on paper submission.