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FROM MARGINALIZATION TO RESISTANCE: A STUDY OF BABY KAMBLE'S *THE PRISONS WE BROKE*

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Abstract

The present paper aims to focus on various forms of oppression and resistance to it by Dalit Women by making a close analysis of the autobiographies and literary works written by or on Dalit women. Division of society in the community is not restricted to caste division, also exist in gender qualities. Dalit women experience a different degree of oppression from both upper caste Hindu and Dalit men where Dalit Women are still biased by being women, poor and Dalit. The significance of this paper is in that it tries to highlight the powerfulness and celebrate the resistance of the women against multiple power discourses which attempt to govern and rule them.

Key words: Dalit Feminism, Dalit Writing, Patriarchal, Marginalised, Superstitions.

Introduction

According to Maya Pandit Jina Amucha, *The Prisons We Broke* is a milestone in the history of literature. Baby Kamble's *The Prisons We Broke* is the first autobiography written by a Dalit woman in an Indian language. The work protests against the Brahmin hegemony. It portrays the condition of Mahars. The book

portrays the depth of the oppression suffered by the Mahars. ahatma Phule and Shahu Maharaj were the persons who opposed this oppression. Ambedkar was the man behind the support of Mahars. In the preface of he autobiography Kamble states that: Today, our young, educated and so-called progressive people are ashamed of using this word [Mahar]. But what is there to be ashamed of?... it tells us that we are great Mahars of this Maharashtra... the true, original sons of this soil... even the name 'Maharashtra' derives from my name, and though you may feel awkward using this name, I do not. I love this word Mahar. It flows in my veins, in my blood, and it makes me aware to the core of my being of the tremendous struggle for truth that we have waged. (17 The Prisons We Broke) (Kambale)

Kamble opposes Dalit oppression. Through this work she pictures how Brahmanical domination rules in the life of the Mahars. In this book I have presented many details of the life of our community without any shame or awkwardness. And readers, too, should not feel embarrassed by them... my only intention in sharing this history with my children and grandchildren.

As it not only reveals the tale of suffering of Dalit's life but highlights also their emancipating strength against the discrimination done to them. Fire of pro test which was separated by Baba Sahib Ambedkar motivated Dalits to think

about their rights as the citizen of India and to snatch them for those who had been dominating them for a long time.

The Dalits are the most socially, culturally and economically oppressed people in India. Often the horrendous caste system and the Hindu scriptures are considered as the primary agents that endow the peripheral and inhuman social position to the Dalits. The opening of school doors for the Dalits by the constitutional intervention in 1950 was a giant leap for the Dalits for social mobility through the politics of the upper castes continue to oppress them in all aspects. Education and the English language became the two empowering sources for the Dalits. The autobiography genre is one genre that the Dalits have adopted to critique the society and used it as a form of protest against inhuman practices which they are subjected to. However, it would be only partially viable to say that the politics of oppression of the upper caste people are solely responsible for the belittled position of the Dalits and especially of Dalit women. The problem of the Dalits has its roots also in the hierarchal social structure of the Dalit community itself. Though almost all the Dalit sub-communities suffered the humiliation and torture together, the fruit of modern education is plucked only by few communities because of the hierarchy that functions within the Dalit social structure. In Gujarat, the Vankar or the Weavers who are at the top among the Dalit sub-communities have had the benefit of education and social

mobility. And not surprisingly it must be noted that the Vankar form the most substantial number of Gujarati Dalit authors. As a consequence, there is a representational dominance of Vankar community in Dalit literature is present, and for various historical reasons, other communities fall outside from this fold of representation.

Dalit Feminism

The hallmark of a good Dalit story was marked by the atrocity inflicted upon a powerless Dalit by upper caste. The common themes are: the impossibility of a cordial relationship between the people of higher caste and a lower caste, the Hindu feudal order as the traditional enemy of all minorities, the hypocrisy of the Hindu upper caste people who propagate that urban city are caste-free and the recurring theme of sexual exploitation of Dalit women by the upper caste. These tropes are typical of Dalit men's autobiographies. Contrarily, Dalit women's autobiographies offer a critique of the Dalit society as oppressive as the upper caste society. Dalit women, in the literary arena, have fostered a counter-perspective dialogue to voice the grievances of Dalit women something which the upper caste women and Dalit men never took up in their writings. This paper has shown Baby Kamble as a radical feminist through a close reading of her autobiography *The Prisons We Broke*. Also, the paper is an attempt to focus on the Brahminical elements within India's

feminist movement and the patriarchal features of Dalit politics of resistance itself. It also demonstrates the vivid portrayal of the aesthetic of pain in Dalit literature as the violation of human rights and throws light on the fact that the perpetrators of crimes against Dalit women are not only the Dalit men who occupy the higher position within their social structure but also Dalit women. And finally, it argues how Kamble's humanitarian vision of the social transformation of the Dalit women rests on the attainment of their fundamental rights.

Dalit Writing

The Prison We broke is a millstone of Dalit women autobiographies in Indian history of Dalit Feminism and to protest against inhuman conditions which have been subjected to Dalit. Some of the social reformers raised their voice against the caste system hegemony and after that Dr Ambedkar who provided the challenges against the caste system. The question raises here is how a child makes differences in human conditions when it comes to consciousness, *The Prisons We Broke* focuses on awareness that makes differences socially, culturally, economically, identity and religion etc. That is how Baby Kamble's autobiography demonstrates the history of the Mahar community's oppression. The political boundary of such a critical analysis comes naturally from the radical, self- assertive politics of B R. Ambedkar is a significant source of inspiration for Baby Kamble. Whereas most

of the Dalit autobiographies by men are in a sense written for a mixed readership of Dalit and non-Dalit readers. In contrast, “Baby Kamble asserts that she is writing for her people. Today our young, educated people are ashamed of being called a Mahar. But what is there to be ashamed of? We are the great race of the Mahars of Maharashtra. We are its real original inhabitants, the sons of the soil. The name of this land is also derived from our name. They should love our caste name, Mahar- it flows in my veins, in my blood, and reminds me of our terrible struggle for truth”. (*The Prison We Broke*. xiii)

“Baby Kamble’s engagement is with the history of Dalit oppression. She does not try to glorify the life of the Dalit community; rather she explicitly states that she intends to subject the life of her community to critical scrutiny to demonstrate how Brahminical domination had turned the Mahar into a slave, forcing them to live in conditions that were worse than animals. Baby Kamble asserts that “I have described in this book the details of the life of our community as I have experienced it during the last fifty years. The readers should not feel ashamed of this history. I have tried to sketch a portrait of the actual life of the Mahars and the indignities; they were subjected to.

Patriarchal

An important unique aspect of *Jina Amucha* or *The Prisons We Broke* by Baby Kamble’s is the critique of patriarchy. She

graphically describes the physical and psychological violence women have to undergo in both the public and private spheres. If the Mahar community is the 'other' for the Brahmins, Mahar women become the 'other' for the Mahar men. Baby Kamble demonstrates how caste and patriarchy converge to perpetuate exploitative practices against women. It is here that the urge to define the self-becomes most evident in women. She also shows the remarkable dignity and resilience of the Mahar women in their struggle through which they have emerged as the agents of transformation in their community. Kamble recalls how one in every hundred women had a disfigured or broken nose, punishment for attempting to escape the torture at home. Women with broken heads and backs were also, common. But some of the younger women chose to rebel against the violence, and the neverending labour and some even attempted to escape in the darkness of night. But there was nowhere for them to go. No sooner had they reached their natal home, that the men of the family would band together against them. By the 1990s, Dalit feminism was arguing that it was impossible to understand the sexual violence of Dalit women except as recurrent stigmatization of Dalits. They challenged upper-caste feminists for ignoring the central role of caste in regulating female sexuality and sexual access. Sexual violence had thus attained semiotic density as a distinguishing feature of caste violence and a sign of its discursive centrality in framing Dalit

identity, even when the meaning and interpretation of violence different from victims to perpetrators.

Marginalised

The politics of a community particular to the group of people having one power over others. A community is a group of people living the same place and practising a common culture, law, social codes, religion, extra. Indian society's composition is staggering regarding religion culture, ethnicity, race, etc. Indian society is predominantly Hindu, and it is characterised as the most rigid and oppressive religion. The principle text Bagvat Gita, Veda and Manusmriti justify the division of the caste in the purpose of the untouchables to serve the upper caste and live in the isolated colonies on the outskirts of villages. India's caste system assigns individuals a certain hierarchical status according to Hindu beliefs. The Hindu population is divided into four castes: Brahmin- Priests and Scholars; Kshatriya- rulers and aristocrats; Vaisya- businessmen and landlords; Sudra- peasants and workers. A fifth caste is a "nocaste" known by several different names: The untouchable higher castes were not supposed to touch them; Dalit is "the oppressed" the politically correct term today for scheduled castes because they are "scheduled" by the government to receive fairer treatment. The Untouchables did the work that the other castes considered unclean: Butchers; latrine cleaners; tannery

workers, etc. Untouchables had almost no right; they were often regarded as pollution and had to live away from others.

Despite social and economic development in India during the 1950s and 1960s, Indian society depressingly suffered from the practising of the caste system that has deprived the lower caste of any aspects of development. The constitution of India has abolished untouchability and opened schools for lower caste but education institutions still oppressed with a visit caste practice. Regarding this Omprakash Valmiki's autobiography *Joothan* (2008) demonstrates the inequality in the socio, economic, education institutions in India.

A Dalit Christian is never free from the atrocity of high caste till now, the novel *The God of Small thing* (1997) presented itself as a classic example of conversions and caste frontiers crossing that ends on a fatalistic note.

The Dalit women are marginalized in five ways: 1) because they are women, 2) because they are Dalit and are subjects of casteist oppression, 3) they are victims of patriarchal power system 4) they are victims because they are economically backward hence they are venerable to be exploited in an upper caste community. And the fifth one is the issue within Dalit feminism that is the marginalised by their community.

The ideas of Audre Lorde can be applied in the Indian context. Throughout history Dalit women are oppressed and

sexually assaulted by the men and Dalit men themselves. Mulk Raj Anand *Untouchables* and *The Prisons We Broke* demonstrate the crimes done on women. Even in feminist discourse, Dalit women issues are hard studies along with the writings of upper caste Hindu women, and high caste Hindu has not shown real sympathy for Dalit women in their writing. It is because, for the upper caste Hindu women, the Dalits are less than human, as the Black women are less than human for the White women. Dalit women believed to be alienated at three levels: caste, class and gender. The violence against Dalit women continues.

Superstitions

Superstition plays a major role in the lives of the Mahars. These practices were minutely followed by the Mahars, and yet it failed to liberate them. Sadly, the very same religion they ardently followed refused to treat them with honour and respect. The lives of the Mahar was so pitiable and pathetic that they would never ask for what is due to them, they would be satisfied with begging for stale and dry jowar roti and would return home as if they had won the lottery. The children would bring home their “booty” and the entire family would feast on it like it was the best thing, and this is said to be their daily routine. They were made to believe that it was the best thing. Hegemony is a belief system where exploited people believe in their own exploitation and do not see it as

exploitation. It occurs when oppressed people partake in their oppression.

Bandhumadhav wrote a short story, titled *The Poisoned Bread*. The significance of the title is very thought provoking. Livelihood makes a difference to the kind of life the Mahars lived. Their lives and deaths are all connected to their livelihood, and this livelihood becomes their death. In order to make a change one needs to sever ties with their livelihood. Rather than asking for charity one should feel dignified to work and then ask for wages. In this story the Grandfather dies after eating the stale bread he had 'begged' for. And the Grandfather was so surprised that the cause of his poisoning was the bread. The author in this short story wants the lower class to first change their mindset. Caste based occupation creates a mindset to develop a fascination for something as bad as stale bread. To think that stale bread is the cause of poison is a radical thought. It is like saying that the cobbler died because of making shoes.

As a conclusion, it can be said that "it is not our differences which separate women, but our reluctance to recognise those differences and to deal effectively with the distortions which have resulted from the ignoring and misnaming of those differences" (Lorde, 122). How Dalit women with their heart-rending narration have evinced the famine sensibility, which comes out of their angst and protest against the society where Dalit women are still carrying

the stigma of being "oppressed" and struggling hard to show their indelible presence in today's society.

Conclusion

Baby Kamble's *The Prisons We Broke* is the first autobiography by a Dalit woman writer. As a writer from the Mahar community she uses her pen to describe the sufferings of her brothers. Kamble draws both the picture of marginalization and resistance. With the influence of Ambedkar's thoughts she uses her life to protest the traditional norms of the Mahar society. She and her fellow Mahars resist marginalization and realize the fact that there is no value in distancing human on the basis of class, caste and gender. Thus as a revolt against this marginality Kamble and her friends protest against this evil practices by touching the so-called upper caste and polluting them. They give importance to education and thus try to break the old chains of society through education and empowerment.

The first chapter of the paper discussed about different definitions on Dalit literature. Puranic books like Rigveda supports the concept of this caste division. Later through the arrival of Ambedkar many people started rejecting this Vedic text. The living conditions of the 'untouchables' were pitiful they were treated as animals.

Organizations like Dalit Panthers helped the Dalits to achieve their liberty. Ambedkar was the center figure who

supported the Dalits. As the result of the arguments between Ambedkar and Gandhi, Bhim achieved reservation for the depressed classes. Representation was a main element in the history of literature.

Mulk Raj Anand and Premchand represented the Dalits through their writings. But these writings were lifeless. Thus many Dalit writers emerged to give life to the Dalit writings. Mahars were the Dalit community in Maharashtra. There were many traditional practices and duties attributed to the Mahars. The position of the Mahars began to change with the arrival of the British.

The second chapter points out the marginalization of Mahars in the work *The Prisons We Broke*. It begins with an introduction to the term marginalization. Later focuses on poverty, 'untouchability', illiteracy and so on as in the book. The conditions of the Mahar women are argued through the idea of Simon de Beauvoir, Freud etc.

Double marginalization is one of the main factors portrayed here. Brahmanical hegemony and oppression are the other important aspects discussed here. As a sum total, this chapter dealt with the oppressed and discriminated conditions of the marginalized people.

The third chapter dealt with resistance. It states how they try to escape from this marginalization through the path

of resistance. This chapter evaluated whether the resistance made by the marginalized became successful or not. The chapter began by defining the term resistance. And later it portrays the resistance done by the Mahar community in the work *The Prisons We Broke*. Education and conversion are some of the path of resistance.

From the tradition itself we could see the oppression of the subaltern. Karna, Vidura, Ekalavya, Sita are some of the examples. Shambuka is remembered as a Shudra boy who was killed for the sin of attempting to follow the Brahmanical yoga. He wanted to rise from the world of Shudra and thus practiced Brahmanical yoga without any fear. He studied the letters and tried to teach it to the Shudras. But Rama and his followers killed him.

Sree Narayana Guru states that if we were living in Rama Rajya, our fate will be similar as that of Shambuka because Brahmin rules are based on Smriti which is biased. Ekalavya was the other victim who was denied the right to education because of varnashrama dharma.

Later we could see the historical figures like Ambedkar and Phule who faced discrimination. Even though they were educated the upper caste never accepted them. In the third chapter we discussed education as a tool to overcome the marginalization. But the life of Ambedkar did not showcase it. Ambedkar was a well-educated man.

He was a research scholar, even though the upper caste was not ready to accept him and his beliefs. He was the first law and justice minister and was the man behind the making of Indian constitution. Still the upper caste considered him only as a Maharand was not ready to accept him. They continued the norms of 'untouchability' to him too. At last he found conversion to Buddhism as a way of rescue from this biased world.

Buddhism is against the chaturvarna system. Many people convert from the Hindu religion to Buddhism, Christianity and so on. But still we cannot infer that they are living in a secure world. They have done this conversion to live in a world of equality. But after conversion they are termed as converted Dalits.

Today in the present society we can see the torture suffered by the converted Dalits. Kevin murder case is the best example for this. This shows that Shambuka during the period of Ramrajya and Kevin Joseph who lived during the 21st century are treated equally. The laws and articles do not give much protection for the poor. So there must be new researches in the field of Dalit studies and in the development of the life conditions of Dalits. *The Prisons We Broke* was published during 1986. It plays an important role in the contemporary society as it describes how the life of the marginalized stays in the peripheries even after resistance.

References

1. Agarwal, Dr. Beena and Dr. Neeta. Contextualizing Dalit Consciousness in Indian English Literature. Second Edition Yking Books, 2016.
2. Awad, Sarah H. and Brady Wagoner. Street Art of Resistance. Palgrave Macmillan, 2018.
3. Bayly, Susan .Caste, Society and Politics in India. Cambridge University Press, 1999.
4. Beverley, John. Subalternity and Representation. Duke University Press, 2004.
5. Dangle, Arjun. Poisoned Bread. Orient Blackswan and Private Limited, 2009.
6. Das, Narayan. Thoughts of Dr. Bhim Rao Ambedkar. Centrum Press, 2017.
7. During, Simon. The Cultural Studies Reader. Second Edition Routledge, 1993. Geetanjali. Status of Dalits in India. Centrum Press, 2011.
8. Hardtmann, Eva-Maria. The Dalit Movement in India Local Practices, Global Connections. Oxford UP, 2009.
9. Jangam, Chinnaiah. Dalits and the Making of Modern India Oxford UP, 2017.
10. Joseph, Jonathan. Hegemony A Realist Analysis. Routledge, 2002.

11. Kamble, Baby. *The Prisons We Broke*. Second Edition. Translated by Maya Pandit. Orient Blackswan Private Limited, 2009.
12. Kota, Rajesh. *Dalit Movement and Radical Left*. Rawat Publications, 2019.
13. Limbale, Sharankumar. *Towards an Aesthetic of Dalit Literature*. Translated by Alok Mukherjee. Orient Blackswan, 2004.
14. Manor, James. *Caste in Indian Politics*. Second Edition. Edited by Rajni Kothari. Orient Blackswan Private Limited 1970.
15. Mungekar, Bhalchandra. *The Essential Ambedkar*. Rupa Publication, 2017.
16. Omvedi, Gail. *Dalit Visions*. Orient Longman Private Limited, 1995.
17. Pawar, Daya. *Baluta*. Translated by Jerry Pinto. Speaking Tiger Publication, 2015.
18. Prasad, Jai Sankar. *Dalit and Indian Caste System*. Centrum Press, 2017.
19. *Dalit Movements in India*. Centrum Press, 2017.
20. Purohit, Ashok. *Gandhi and Ambedkar*. Wisdom Press, 2016.
21. Ram, Fakir. *Dalit Awakening Moving Upward*. Swastik Publications, 2010.

22. Rao, Anupama. *The Caste Question Dalits and Politics of Modern India*. Permanent Black, 2009.
23. Rucker, Walter C. *The River Flows on: Black Resistance, Culture and Identity Formation in early America*. Louisiana State University Press, 1970.
24. Sharma, K.L. *Caste and Class in India*. Rawat Publication, 1994.
25. Sharma, Ram Sharan. *Sudras in Ancient India*. Motilal Banarsidass Publishers, 1958.
26. Shuraj, Dr. O. *The Essential Writings of B.R. Ambedkar*. Atlantic Publishers, 2013.
27. Singha, Sankar Prasad and Indranil Acharya. *Towards Social Change Essays on Dalit Literature*. Orient Blackswan Private Limited, 2014.
28. Teltumbde, Anand. *B.R. Ambedkar India and Communism*. Left Word Books, 2017.
29. Tharu, Susi and K. Lalita. *Women Writing in India*. Oxford UP, 1993.
30. Valmiki, Omprakash. *Joothan: A Dalit's Life*. Translated by ArunPrabha Mukherjee. Orient Blackswan Private Limited, 2003.
31. Xavier, Robin. *The Methodology of Literature*. Mainstream Publishers, 2015.
32. Zelliott Eleanor. *Ambedkar's World*. Navayana Publishing Pvt Ltd, 2004.

GRACEFUL LABELING OF GRAPH

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Abstract

The dissertation includes the concept of graceful labeling of graph. We discuss on the definition, gracefulness of some graph classes, mathematical programming formulation of the graceful graph, and variations of graceful graph. Also, we discuss about the application.

Introduction

The study of graph labeling has become a major subfield of graph theory. Most graph labeling methods trace their origin from the concept of β -valuation, introduced by Alex Rosa in 1967. However, Golomb studied the same type of labeling and called this labeling graceful labeling. Graceful labeling is one of the best-known labeling methods of graphs. The graceful labeling problem is to determine which graphs are graceful or not.

Graceful Labeling

A graceful labeling of a graph G is a vertex labeling $f : V \rightarrow [0, m]$ such that f is injective and the edge labeling $f : E \rightarrow$

$[1, m]$ defined by $f(uv) = |f(u) - f(v)|$ is also injective. If a graph G admits a graceful labeling, we say G is a graceful graph.



Gracefulness of graph classes:

- All paths are graceful, and also all trees are graceful.
- The complete bipartite graph $K_{a,b}$, where a and b are positive integers, is graceful for all values of a and b .
- If G is a graceful Eulerian graph with n vertices, then $n \equiv 0 \pmod{4}$ or $n \equiv 3 \pmod{4}$.
- The graph C_n is graceful if and only if $n \equiv 0 \pmod{4}$ or $n \equiv 3 \pmod{4}$.
- Almost all graphs are not graceful, for example, C_5, K_5 .

Mathematical Programming in Graceful Graph

Attempting to gracefully label a particular graph G by hand or theoretically prove that it is not graceful can be a difficult process. A much more practical, accurate and efficient route to take is one of computational. There are two mathematical programming formulations of the graceful labelling problem.

1. Integer Programming Formulation

Graceful labelling problem formulation.

$$\text{Minimize } f(x_1, x_2, \dots, x_n) = 0$$

Subject to

- (constraint 1) $|x_i - x_j| = a$ for some edge $ij \in E(G)$;
 $a = 1, 2, \dots, e$
- (constraint 2) $|x_i - x_j| \geq 1$ for each edge $ij \in E(G)$
- (variable bound) $0 \leq x_i \leq e \quad i = 1, 2, \dots, n$
- (integer requirement) x_i integer, $i = 1, 2, \dots, n$

2. Constraint Programming Formulation

Graceful labelling problem formulation.

Find an integer *vlabel* (i) for each vertex i of $V(G)$, $i = 1, 2, \dots, n$ such that Vertex label restrictions:

- $0 \leq \text{vlabel}(i) \leq e$; $i = 1, 2, \dots, n$
- Furthermore, all vertex labels must have different values.

Edge label restrictions:

- $\text{elabel}(ij) = |\text{vlabel}(i) - \text{vlabel}(j)|$ for each edge $ij \in E(G)$
- $1 \leq \text{elabel}(ij) \leq e$ for each edge $ij \in E(G)$
- Furthermore, all edge labels must have different values.

Variations of Graceful Labeling

The variations of graceful labeling are **edge** graceful labeling, **Line**-graceful labeling, α -labelling, **k**-graceful labelling, **odd**-graceful labeling, **skolem**-graceful labeling.

The α -labeling have proved to be useful in the development of the theory of graph- decomposition. There is relationship between k-graceful labeling and perfect system of different set. A graceful graph or its variations can be represented by a sequence of positive integers.

Example: A Skolem sequence of order n is a sequence $S = S_1, S_2, \dots, S_{2n}$ of positive integers with the following properties:

- 1) For any $k \in \{1, 2, \dots, n\}$ there exists precisely two subscripts $i(k), j(k)$ such that $S_{i(k)} = S_{j(k)} = k$.
- 2) The two subscripts satisfy the condition $|i(k) - j(k)| = k$, $k = 1, 2, \dots, n$.

For instance, the set $S = \{1, 1, 3, 4, 5, 3, 2, 4, 2, 5\}$ is a Skolem sequence of order 5 because $S_1 = S_2 = 1$, $S_7 = S_9 = 2$, $S_3 = S_6 = 3$, $S_4 = S_8 = 4$, $S_5 = S_{10} = 5$.

Applications

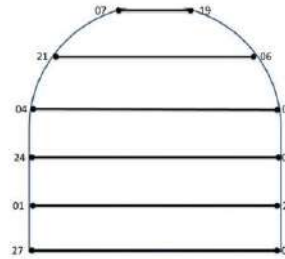
The wide range of applications arising from this area are coding theory, X-ray crystallographic analysis, communication network design, radar, missile guidance, optimal circuit layout.

The X-Ray Crystallography: In modern days, X-ray diffraction is one of the most powerful techniques for characterizing the structural properties of crystalline solids, in which a beam of X-rays strikes a crystal and diffracts into many specific directions. Position of atom in a crystal structure are made by X – ray diffraction patterns. Measurements indicate the set of inter atomic distances in crystal lattices. Mathematically, one can find the finite set of integers to one atom position, so that diffraction is equivalent to the distinct edge lengths between these two integers

The Communications Network Addressing: A communication network is composed of nodes, each of which has computing power and can transmit and receive messages over communication links, wireless or cabled. If one had a communication network with a fixed number $n + 1$ of communication centres and they were numbered $0, 1, \dots, n$ then the lines between any two centers could be labelled with the difference between two center labels. If the communication center grid was laid out in a graceful graph, we would then be able to label the connections between each center such that each connection would have a distinct label. One good advantage of such a labelling is that if a link goes out, a simple algorithm could detect which two centers are no longer linked.

Dental Arch: The dental arch can be represented by graceful labeling, and we find that there is a certain pattern on doing so. This pattern could be used to analyse the arch and its teeth. The

dental arch can be represented by k-graceful labeling and odd-graceful labeling.



k-graceful labelling in dental arch

Radar Pulse Code: The problem of graceful complete graph K_m is equivalent to the problem of putting m marks on the ruler (always including the ruler's two ends as marks) so that every distance between a pair of marks is a distinct integer. The vertex number then determine the time position at which pulse are transmitted.

Conclusion

In graph labeling, Graceful labeling is one of the best-known labeling methods of graphs. The graceful labeling of graphs has been a topic of research for 50 years and it still has many properties to be found. The graceful labeling problem is to determine which graphs are graceful or not. And this problem is solved by not only theoretically also some by computational result. Application of graceful labeling of graph have been found in x-ray crystallography, network communication, radar and missile

guidance, coding theory, etc. it is a recent subject in mathematics in which studies are in process.

Bibliography

1. J. A. Gallian, *A Dynamic Survey of Graph Labeling*. The Electronic Journal of Combinatorics, (<http://www.combinatorics.org/>) DS6 16 (2009).
2. Kouros Eshghi, *Introduction to graceful graphs*, (2002).
3. Kymrun Kaur Dhani, *An evaluation on the gracefulness and colouring of graphs*, university of York, (2017).
4. T. A. Redl, *Graceful graphs and graceful labelings: two mathematical programming formulations and some other new results*, Tech. Report TR03-01, CAAM Department, Rice University, Texas, 2003.
5. Jannatul Maowa, *A study on graceful labelling of trees*, BUET, Dhaka 1000 (2016).
6. P. Lalitha, M. Gayathri, L. Tamilselvi, A. V. Arun, *Application of graceful labeling in dental arch*.

**A POSTCOLONIAL STUDY OF KIRAN DESAI'S *THE*
*INHERITANCE OF LOSS***

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Abstract

The paper aims to explore the theme of post colonialism in the novel *The Inheritance of Loss*. It discovers the issues of identity crisis, diaspora and cultural conflicts. The characters faces a lot of problems in the light of post colonialism. The struggle of various characters, their search for identity and culture are clearly depicted through this paper.

Keywords : postcolonialism, diaspora, identity crisis, cultural conflicts

Introduction

Kiran Desai was born on 1 September 3, 1971 in New Delhi, India. She is an Indian-born American author whose second novel, *The Inheritance of Loss* (2006), became an international best seller and won the 2006 Booker Prize. *The Inheritance of Loss*, was widely praised by critics throughout Asia, Europe and the United States. It won the 2006 Man Booker Prize, as well as the 2006 National Book Critics Circle Fiction Award.

The *Inheritance of Loss* is a story dealing primarily about the problems of migration faced by her characters, their tensions

and dilemmas. One of the major concerns of diasporic literature is the problem of exile, displacement and the resulting consequences. Uprooting from one's own home land is an agonizing process that brings numerous material and emotional traumas in the process of re-rooting in an alien land. The characters are often victims of circumstances and by the time they realize the problems, they are exhausted, miserable and frustrated. Even when they come back after their traumatic experiences, like the Judge in the novel, they often develop a sense of distrust and anger.

Clash of cultures is one of the major themes of the novel. India's caste system and the effects of English colonization are at the heart of all the conflicts in the novel. It creates invisible but inviolable rifts in the community. The Judge and Sai are upper caste Indian and as such, they have access to Western education and have been given the opportunity to live in the West. These changes them in great ways: it causes the grandfather to hate his very appearance even wearing Garish white face powder in an attempt to lighten his skin tone. They also begin to see their native culture as primitive and in their rejection of their Indian heritage they earn the ire of their community. Paradoxically, their love of the English culture fails to endear them to the English as the English see them as mere second class citizens, good only for labor

but not good enough for socializing with. The ethnic Nepalese are also deeply affected by the caste system.

Colonialism was the one type of system in which the ruler of aristocrat class used to use their power to earn wealth by dominating over the common people. So it was one type of chain of real development of humanity. In the beginning when the common people were unable to bear the torture of colonist dictator then they start revolution. But we can't ignore the services rendered by the colonialists. They have promoted in many fields. Colonialism to post colonialism was just a shift of power from the foreign rulers to native rulers so the name of post colonialism came in existence. It was another kind of change to rule by the native members selected by native peoples. Later post colonist start same process of earning money and wealth that is called corruption, same as colonist. So during this period so many problems came in existence which is discussed in post-colonial literature.

The paper will focus on the experiences of some of the characters in the novel – Jemubhai Patel, the Judge, and Biju, the son of Judge's cook who is the central character of the novel. The book seems to suggest that true happiness does not lie in material wealth or comforts, but in one's own dignity, identity and sense of belonging. In the novel, the characters especially Biju has to undergo number of traumatic experiences that brought a lot of

material loss, but he has a spiritual gain- the realization of what brings true joy in life. This paper deals with the themes of diaspora, cultural conflicts and identity crisis.

Diaspora

Desai has portrayed the state of homelessness, exile, marginalization, displacement and lack of belongingness being experienced by the illegal and legal diaspora individuals and communities in America (transitional land) as well as the people from other states, regions and communities from India living in Kalimpong (National land). In order to delineate the travails of diaspora, people and communities are uprooted from their homeland, in transnational as well as national lands. Desai shuttles between first and third worlds, illuminating the pain of exile, the ambiguities of post colonialism and the blinding desire for a better life. By employing the technique of multiple voices to portray the complex characters in various situations both in the United States and India, Desai problematized the issues of home, diaspora and belongingness treating them not as fixed but fluid concepts ever shifting with the changing positionality of the subject positions of individuals and Communities with the changes in the historic political scenarios both in home and abroad.

Since the post second world War period, 'diaspora' as an expression and experience has expanded its terms, conditions and

ramifications beyond imagination. It now signifies all migrations, settlements, journeys and movements – voluntary or forcible-of people and communities from their homelands into new regions across the world, both from the first world to the third world and vice-versa, from north to south and east to west, and even from one state to another within the same nation and much more. The word, diaspora derives from the Greek origin, meaning to disperse. Diaspora is the voluntary or forced movement of people from their homelands into the new regions. It has also arrived in a new geographical and cultural context which serves as the meeting place of two cultures; the migrant and the host. The diasporic culture is an amalgamation of the two cultures. A member's adherence to diasporic community is demonstrated by the acceptance of an inescapable link with their past migration history and a sense of co-ethnicity with others of a similar historical background. Diasporic communities are created out of the merging of narratives about journeys from the old country to the new one. People from the first generation of migrants tend to recall the old country more than the children born to the migrants.

The novel explores Identity, is a vital part of the personal lives of individuals in a society. It elaborates identity in terms of ethnicity, linguistics, cast system or sectarianism and eventually, it analyzes the fragmented identity of individual's belonging to the middle and lower class of the Society. Kiran Desai, in her novel,

The Inheritance of Loss sets Indian society in its backdrop and writes the novel based on her experiences when she has travelled between diasporic identities and displacement. She has written the novel in English language rather than in Indian English. She expresses the new consciously, the judge began to adopt the new British culture and by doing so he began to consider himself more important than any other thing.

Kiran Desai, in *The Inheritance of loss*, addresses variety of identity crises issues such as cultural hybridity, nationalism, identity and the connection between place and culture. Most characters of the novel experience great influence of the non-native culture. The author shows various aspects of the split identity on a different life stories faced by people who are trying to face a strong foreign influences and the characters of the novel are representatives of various issues regarding confused identities. The chapter two of the novel describes the formation of Indian Diasporas. It presents the diasporic formation of the characters, judge and Sai.

The diasporic thought of the judge exists in alienated form by focusing on three key aspects; mentally paralytic, emotionally blocked and spiritually dead. However, the formation of diaspora of Sai is because of her British education. The colonial education makes her lose her native identity. Hence, they are keeping a hybrid identity in the

formation of the Indian diaspora. Chapter Three describes the formation of diasporas in New York. This chapter is composed in three parts. The first part describes the formation of the Diasporic character, Biju, an illegal immigrant in New York.

The second part portrays the formation of the diasporic person, Saeed. The third part delineates the formation of the diaspora Harish-Harry, a lawful permanent immigrant. Through the analysis the three types of immigrants, the researcher discusses that they should keep in-between space, hybrid identity in the globalized world. Biju is the son of the cook who leaves India in hope of better life in America finds out that he is not able to understand the foreign culture and in the end he is relieved back to India, where he despites his imperfections, finds security in well-known habits and customs.

Identity Crisis

Kiran Desai's *The Inheritance of Loss* depicts identity crisis faced by different people. Everyman living in the world is bound to have an identity. Everyone undergoes a conflict with him or herself. He or she remains dangling between two identities and struggles a lot. The Inheritance of Loss can be studied from the perspective of identity crisis. The story unfolds various complex issues as it progresses. Desai shows how the lives of Gyan, Sai and her grandfather as well as the lives

of their cook and his son are suffered and tossed at horrible turning points. Almost all the characters are the inheritors of loss in terms of dislocation of place, wealth and progress. All of them suffer from sense of loss. Through the delineation of opposite characters Desai illustrates the unfortunate consequences of imperialism. While Jemubhai's quest for identity is discussed through adoption of parameters of class of the whites, Gyan's is through an expression of resistance and vengeance.

The Inheritance of Loss represents the mimic individuals struggling for lost identity. This is a story of alienation occurred both in the homeland and abroad. Psychologically identity is a person's conception and expression of one's individuality. It is also an affiliation with a group or a community as in case of cultural identity. Identity can be defined as "the distinctive characteristic belonging to any given individual shared by all members of a particular social category or group". It is also observed that individual's identity leads to complications and conflicts which the self of individual suffers. It is this crucial conflict that almost every human being encounters. This conflict is called identity crisis. Many characters from the novel under study suffer from identity crisis due to which they fail in their assimilation in their own land as well as in foreign land. This paper discusses

the identity crisis in selected characters from the novel by examining their experiences in their lives.

The prestigious Booker winning novel *The Inheritance of Loss* appeared in 2006. It took Desai eight years to complete this novel. The title of novel seems complex but it is still more informative and readers soon realize that it deals with various themes and issues related with Post colonialism. Jemubhai's education in England caused him so much pain and suffering that he desperately tried to become as English as possible and hated anything Indian, including his family and his wife. His meeting with English culture was humiliation and that established anger in him for his own culture and men. Further he was rejected in England and this rejection fueled in his soul a shame and dislike for his heritage, his culture and the colour of his skin.

Desai attempts to locate this consequence of colonialism. Justice Jemubhai is the best example of the colonial aftermath. He holds onto colonial past even he lives in independence India. He has embraced the education, manners and values of white masters. He is ridiculed because of his westernized way of life. The life of Jemubhai is nothing but the mimicry of the Europeans. His obsession with the cleanliness makes him aloof from his own countrymen. As rightly stated by Ashcroft et al. that displacement and/or

shifting of location results in the crisis of identity. Ashcroft et al. remark “A major feature of post-colonial literatures is the concern with place and displacement. It is here that the special post-colonial crisis of identity comes into being; the concern with the development or recovery of an effective identifying relationship between self and place” (Empire Writes Back). In short, the search for identity is beset primarily with the problem of location. This novel has plenty of instances of displacement and shifting of location as is the case of Biju, Sai or Gyan. The central characters of this work are seen as engulfed in a struggle to establish an identity of their own.

This struggle arises out of the feeling of being conflicted between two cultures- one his own culture and the other alien culture. They are shifted from their native identity to something different. This is the transformation of the native into something other than himself a Westernised native or at least one who is in a crisis regarding his/her own cultural identity. Through this novel Desai confronts us to the basic concept of identity and at the same time she focuses on how identity is treated as monolith in postcolonial nations like India. The novel addresses the issue in a direct and most poignant way. To justify her idea, Desai has portrayed the characters that are mostly eccentrics or in exile or both. The

seeds of identity crisis are sown much earlier with colonization which not only destroyed native culture but also induced the natives to abandon their own culture and to imitate the colonisers.

Cultural Conflicts

The novel depicts the cultural conflicts faced by the people. This novel gives an idea that, the fate of the Indians who were trapped in the East West counter in the current age of multi culturalism and globalisation seems to be doomed since the age of colonisation. This continuous dominance of western culture created a mind-set among the young generation that it is more advanced than our own culture. Cultural Clashes is one the most perspective in postcolonial theory. One can see that Desai describes the humiliation and helplessness of their characters against aggressors behaviour. The clash appears between the two cultures of Hindus and Nepalese and it clearly declares the fact that violence and injustice are skillfully disguised under false pretenses of freedom and public interests. Political turmoil is also explicit in this novel as it is to be seen in socio-political conflict in Kalimpong during 1980s are noteworthy where the Indian Nepalese demanded a separate State for themselves.

The Gorkha National Liberation Front has been formed by the Indian Nepalese youth. They are fed up with their marginal

and minority status in a place where they were majority. The majority of Desai's characters have been stuck by distance or separation as referenced before. The principle characters the judge, Sai, and Biju live in two universes: the Indian class framework and the western world. Consistently these two universes are related in their social co-operations, their desires and expectation.

The judge takes a gander at the English as somebody predominant and this frame of mind places him in a postcolonial issue that irritates his undecided nature. Jemubhai delivers retribution on his initial disarrays and shames for the sake of keeping up principles. He needs to keep his inflection behind the veil of quietness. He pursues the British culture aimlessly. He gets enrolled as an Indian Civil services part and attempts to wind up an official keeping up the British models. It obviously demonstrates his attitude that Britain speaks to a general public better than that of Indian.

Other characters of the novel namely Noni, Lola, and uncle Booty also undergo conflict of class and culture in the novel. Lola and Noni live in Kampong and are proud to be a neighbour of the judge. They were fond of English life and read English books. When the insurgency reaches to its peak, their life becomes intimidated. The worst of all happens when there is an encroachment of their own land. Lola approaches Pradhan, local

head of GNLF wing. Lola and Noni never thought that the local people may someday become aware and could claim rights. Father Booty also lost his Swiss dairy and faces the same identity crisis's as Biju faces in America. When the local people demand their own lands, he feels that residing in India is illegal. Most of the characters have their own conflicts. The Novel admirably throws light on the split personalities of the diasporians, who are pulled forward and backward by the adopted culture, and then, by the native culture.

Through the delineation of opposite characters Desai illustrates the unfortunate consequences of imperialism. While Jemubhai's quest for identity is discussed through adoption of parameters of class of the whites, Gyan's is through an expression of 'resistance' and vengeance. In the novel both the characters are experiencing a personal and cultural loss into which they were born and have no choice but to face. The title of the novel *The Inheritance or Loss* is meant to encapsulate the generational continuation of loss that these immigrants have experienced. *The Inheritance of Loss* by Kiran Desai, explores immigration, identity, and relationships on both the interpersonal and international scale. Spanning India, England, and the United States, the novel details the conflict between traditional Indian ways of life and the shiny opulence of Western nations. The

Inheritance of Loss follows four characters from a household in Northern India.

Conclusion

The novel *The Inheritance of Loss* is an authentic study of human relationship bedeviled by exile and cultural encounters. Those human beings who are not enjoying their life seem to adhere to their cultural instinct and they detached from their real nature. This made a negative impact in their whole life and leads to cultural deformity when these people happened to live in a new world; they have to construct their own world based on their acquired culture and civilization. The novel brought her come to literary attention , winning the Betty Task Award. Desai's second novel *The inheritance of Loss*, taking her eight years to finish ,was presented to the public in 2006 Man Booker Prize ,and Desai is the youngest winner. The novel is set against the backdrop of the agitation for Gorkhaland in the north eastern hills of Darjeeling , close to the borderland with Nepal.

There are stories within the stories depicted in numerous vignettes. Set in 1980s , the novel gives a graphic account of a cross section of Indian society in characters like Jemubhai Patel, a former judge ,his teenaged granddaughter Sai and their cook Panna Lal, who lives in a house in the north east Indian town Kalimpong, Biju ,the cooks son ,Gyan ,Saeed, Harish harry and

the two sisters, Lolita and Nonita. All these figures are the inheritors of loss , in terms of dislocation of place , wealth and progress .They are all transformed from their native identity into something quite different ; a westernized native. Rather, they are negotiating with a state of non – identity. The novel admirably throws light on the split personalities of the diasporians, who are pulled forward and backward by the adopted culture, and then, by the native culture.

Besides, the novel is about an old man's broken and crushed hopes. It narrates about a person who has accepted self exile, colored in juvenile love that was nipped in the bud along with the drastic effects of terrorism in India. However, conflict arises between past and the modern world. Indians forget their roots due to the glamour of western culture. The novel embodies the color of colonial and post colonial time. There remains a marginal and cultural clash that is between Indian and western culture reflected by Biju & Judge. Kiran Desai's use of emotional space and contrast bring clarity in English.

The Inheritance of loss features the fundamental human qualities like sympathy and resistance, while love outperforms the social, political and religious constraints. Her novel urges majority of ways to deal with issues globalization, advancement and esteem frameworks. This is a novel all about divisions: between continents, between nationalities, between religions. A novel of

shifting points of view, *The Inheritance of Loss* flits from one character to another, from one emotion or sense impression to the next, its narrative form acting out the sense of dislocation that is its theme.

All characters in the novel struggle with their cultural identity and the forces of modernization while trying to maintain their emotional connection to one another. *The Inheritance of Loss* shows certain multicultural concerns like diversity, identity, minority, diaspora and ethnic rights and post colonialism. Thus the project explores the problems faced by various characters under the light of postcolonialism

References

1. Ashcroft, Bill Gareth Griffiths and Helen Tiffin. *Key concepts in postcolonial studies*, Routledge.
2. Baba, Homi K. *The Location of Culture*. London and New York Routledge. 1994.
3. Brah, A. *Cartographies of Diaspora: Contesting Identities*. Routledge. 1999
4. Cohen, R. *Frontiers of Identity: the British and the Others*. London: Longman 1994
5. Cohen, R. *Global Diasporas: An Introduction*. London: UCL Press.1997

6. Cronin, Michael. *Translation and Identity*. London and York: Routledge, 2006.
7. Desai, Kiran. *The Inheritance of Loss*. New Delhi, Penguin books. 2006
8. Hall, Stuart. *Cultural Identity and Diaspora*. J. Rutherford, ed. *Identity, Community, Culture and Difference*. London: Lawrence and Wishart 1990.
9. Knott, Kim, and Sean McLoughlin, eds. *Diaspora: Concepts, Intersections, Identities*. India: Rawat Publications, 2011.
10. Mishra, Pankaj. *Wounded by the West*. Rev. of *The Inheritance of Loss*, by Kiran Desai. *The New York Times Book Review*. 2006.
11. Nayar, P. K. *Postcolonial Literature: An Introduction*. Pearson education. India. 2008.
12. Pathak RS. *Modern Indian Novel in English*. New Delhi: Creative Books, 1999

**PROBLEM ENCOUNTERED BY ASHA WORKERS
DURING COVID-19 OUTBREAK WITH SPECIAL
REFERENCE TO BALUSSERY BLOCK**

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Abstract

ASHA or Accredited Social Health Activist is a scheme under NRHM (National Rural Health Mission) is presently known as NHM (National Health Mission), which was launched to provide effective healthcare at the grassroots level. The women who provide services under this scheme and accountable to the health care of their respective community is known as ASHA Worker. Each ASHA is set up over 1000 population. It only includes women and they are selected from the respective community. ASHA workers act as an interface between the community and the public health system. ASHA workers are an honorary worker. They are mostly appointed as voluntary workers and they did not get paid what they actually deserve. Their work mostly came under voluntary works. ASHA workers becoming popular among the rural population by visiting homes and collecting vital statistics and giving necessary advice to prevent COVID-19. They are working with dedication and courage, putting their lives at risk, on the frontlines of the battle against the COVID-19 pandemic.

Introduction

Accredited Social Health Activist is popularly known as an ASHA worker. They operate in rural and urban areas. They play an active part in informing people about healthcare. ASHA workers get training and bridge the gap between the commoners and health care facilities. ASHA worker is primarily an “honorary volunteer” but is compensated for her time in specific situations (such as training attendance, monthly reviews and other meetings). Today, The ASHA workers have become an integral part of the Healthcare system.

ASHA is a health activist in the community. In the Covid scenario, while doctors, nurses and other paramedical staff are engaged taking care of Covid19 patients inside hospitals, ASHA workers are carrying out the outdoor task of visiting households, checking out the health of people who are under isolation and quarantine and collecting data about symptomatic persons and those who were in primary and secondary contacts with the infected, by risking their own health. Hence, the condition of ASHA workers becomes worse and more difficult in the pandemic. They have been facing many problems socially and economically.

ASHA workers are as important as any other healthcare workers. However, they are not treated as permanent workers because they are considered more an activist, than an employee.

In this period of Covid-19, ASHA workers risk their own life to save the world. They are working day and night for all the people. ASHA workers are candles who lit the world by melting themselves in that process. Nowadays, ASHA is becoming popular among rural population with their contributions to tackle Covid-19 and through other health activities.

Objectives of the Study

- ✓ To examine the role of ASHA workers in fighting against the covid-19 pandemic.
- ✓ To analyse the problems faced by ASHA workers during covid-19 pandemic.
- ✓ To analyse the effect of the covid-19 pandemic on the socio- economic status of ASHA workers.

Significance of Asha Workers

- The ASHAs were respected as they brought basic health services to the doorstep of households.
- Community health volunteer is considered vital to achieving the goal of increasing community participation and access to the healthcare system. Their role led to increased footfall in government facilities.
- Accountability of public health services increased; there would be protests if a facility did not extend quality services.

- Incentives for institutional deliveries and the setting up of emergency ambulance services like 108, 102, etc. across most states built pressure on public institutions and improved the mobility of ASHAs.
- Overall, it created a new cadre of incrementally skilled local workers who were paid based on performance.
- Needless to say, ASHA workers contributed towards curbing the spread of COVID-19 pandemic.

Findings

- Majority of ASHAs belonged to the age group of 35 to 40 years.
- Nearly half of the ASHAs have SSLC educational qualification.
- Majority of ASHAs were married.
- Majority of ASHAs living in the rural area.
- Most of the ASHAs belonged to Christian and Hindus religion.
- Majority of ASHAs replied that they were satisfied the work.
- Majority of ASHAs have work ranging from 4 to 6 years.
- Most of the ASHAs choose this field as they are personally interested in social service as well as to get them working due to as a source of income.
- All the ASHAs received training from NRHM.

- Most of the ASHAs have attended both the residential and non-residential training.
- Majority of ASHAs strongly agreed that they played a crucial role in fighting against the covid-19.
- Most of the ASHAs agreed that they helped the society during the pandemic period by ensuring quarantines, distributing food and other medical supplements.
- Most of the ASHAs distributed medicines and other supplies to the society during pandemic period.
- Majority of ASHAs said that community response towards the service during the pandemic is satisfactory.
- Nearly half of the ASHAs has worked for about 8 to10 hours in a day during the pandemic.
- Majority of ASHAs has got the PPE kit provided by the authorities.
- More than half of the ASHAs received all safety supplies from authorities.
- Most of ASHA workers' family was very tensed with the work.
- Majority of ASHAs replied that they didn't get proper salary for the work.
- Most of the ASHAs were satisfied with the job.
- Almost all the ASHAs faced problems regarding the work such as heavy work load, low compensation, high risk, lack of co -operations from the side of beneficiaries and

transportation problems due to lack of vehicles towards the remote area and lack of proper road.

- Majority of ASHAs admitted that the pandemic brought negative impact on relationship basis, experienced domestic violence and also the work nature frequently caused frustrations among the family members.
- Almost all ASHAs felt financial crisis during the pandemic situations and said that this situation had also impacted the savings and regular expenditure.
- The Study statistically tested and validated, there is a significant association between motive of working as ASHA worker and satisfaction towards job.
- The study statistically tested and validated, there is a significant association between health issues and safety of ASHA workers.

Suggestions

- ❖ The study found that the ASHA workers played an incredible role in combating Covid-19, they did not receive a proper salary and other facilities. Government has to take proper actions in providing salaries, incentives and inclusion in social safety schemes such as pensions.
- ❖ ASHAs are overly worked as they have to carry out the normal duties along with covid19 duties. So Panchayat should start a volunteer committee for assisting ASHAs.

- ❖ The study found that due to lack of transportation facility to remote areas. Compensation has to be increased based on the distance to be covered and cost of transportation. It is very important to take necessary steps to solve the problems.
- ❖ The study has found ASHAs have work experience 4 to 6 years. Government has to consider them in enrolling ASHAs in to a permanent post.

Conclusion

ASHAs are frontline workers to fighting against the covid-19 and they played critical role in rural and urban areas. Ensuring quarantines, distributing food packets, supplies medicines, immunization programmes were major services rendered by the ASHA workers in the Panchayat. Through this study is reveals that ASHAs faced problems regarding the work such as heavy work load, low compensation, high risk, lack of co -operations from the side of beneficiaries and poor transportation facility to remote area and lack of proper road. The present study reveals almost all ASHAs admitted that the pandemic brought negative impact on relationship basis, experienced domestic violence, financial difficulty and also impacted the savings, regular expenditure during the pandemic situation.

References

Books

1. Bhatia, K. (2014). Performance-Based Incentives of the ASHA Scheme: Stakeholders' Perspectives. *Economic and Political Weekly* , 145-151.
2. S. K., Porandla, K., Krishna, P. S., Kumar, N. S., Mavillapalli, V. V., Pusukuri, S., & Sultana, A. (2021). Mental health problems during COVID-19 outbreak in social health-care workers in Karimnagar. *Telangana Journal of Psychiatry*, 7(1), 42.
3. Chowdhury, P., Baidya, S., Paul, D., Debbarma, P., Kalita, B., & Karmakar, S. (2021). Assessment of knowledge, attitude and practices among Accredited Social Health Activists (ASHAs) towards COVID-19: a descriptive cross-sectional study in Tripura, India. *medRxiv*.
4. Rao, B., & Chowdhury, S. D. (2021). Female frontline community healthcare workforce in India during Covid-19.
6. Neetha, N. (2021). Crisis After Crisis: The Pandemic and Women's Work. *The Indian Economic Journal*, 69(3), 425-440.
7. Rajbangshi, P. R., Nambiar, D., & Srivastava, A. (2021). Community health workers: challenges and vulnerabilities

of Accredited Social Health Activists working in conflict-affected settings in the state of Assam, India. *BMC Health Services Research*, 21(1), 1-10.

Journal Articles

1. Gogoi, M. M. (2020) ASHA worker as human resource and problem faced by them before and after covid-19. *PalArch's Journal of Archaeology of Egypt / Egyptology*, 17(6), 11172-11178
2. Devarajappa S (2021) Impact of covid19 pandemic on Accredited social Health Activist (ASHA) in Karnataka: A Empirical Analysis.<http://dx.doi.org/10.31782/IJCRR.2021.131818>
3. Kalita, M., Borah, G., & Koch, M. (2020). Role of Accredited Social Health Activists (ASHA) Workers In Assam: An Analysis In The Context Of Coronavirus Disease Of 2019 (COVID-19) Pandemic. *European Journal of Molecular & Clinical Medicine*, 7(03), 2020.
4. Babu, C., & Babu, M. (2021). ASHA-World's Largest All-female Frontline Community Health Worker: Features and Challenges. *Indian Journal of Holistic Nursing (ISSN: 2348-2133)*, 12(3), 16-20.
5. Peteet, J. O., Hempton, L., Peteet, J. R., & Martin, K. (2020). Asha's response to COVID-19: Providing care to slum communities in India. *Christian Journal for Global Health*, 7(4), 52-57.

6. Rahul, P., Chander, K. R., Murugesan, M., Anjappa, A. A., Parthasarathy, R., Manjunatha, N., & Math, S. B. (2021). Accredited social health activist (ASHA) and her role in district mental health program: learnings from the COVID 19 pandemic. *Community Mental Health Journal*, 57(3), 442-445.

Websites

1. [http. Google scholar.com](http://Google scholar.com)
2. [http. Shodhganga.com](http://Shodhganga.com)

LOCAL HISTORY OF CHETTUVA

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Introduction

The local history of a village mainly concentrate on the local community. This study intended to provide local history of Chettuva. Chettuva is a coastal village with beautiful landscape and geographical features. The deep river and the availability of pepper in neighboring areas has given historical significance to Chettuva. It is a small Island. The old name of Chettuva was *Chettazhi*, which means the place where the edge of the mud. Chettuva was adorned with beautiful scenery. Just like kodungallur and Cochin, Chettuva was also a port in ancient times. It was often under the control of Zamorin and kings of Cochin.

Disputes between Zamoin and kings of Cochin increased with the arrival of Europeans. Dutch built a fort called Fort William in Chettuva. With the advent of Tipu Sultan the fort suffered further setback. If we look at the present chettuva, it has become ome of the tourist destination. The people largely depend on Chettuva River for occupants and other basic needs. This study provides a historical understanding about Chettuva and also asses the changes taken place in Chettuva from ancient time to present

Chettuva as a Part of Engandiyur Panchayat

Chettuva is a village of Engandiyur Grama panchayat, situated on the shores of Arabian Sea, 20km west of Thrissur town. It is an ago climatic zone of coastal sandy. The panchayath located slightly below the average sea level. The Eastern part of Panchayat covered with clay sand and the Western part with loamy sand. The soil here is mostly acidic with high in phosphorus. As it is coastal area the main crop is coconut. Vegetables such as plantains, cloves, pepper and squash are also grown here.

The main problem facing the people of Chettuva is lack of pure drinking water. They depend on public pipes and other sources provided by the panchayat. People on the banks of river suffer the most. Fishing and coir production were the main occupation of the people. There was a coir industry unit owned by Thachappully Dharmarajan. Various business leaders from Spain, Portugal, Britain, Mysore and Bengal have set foot on the soil of the Chettuva. Different types of archaeological materials are found here. The precious stones of various sizes have been found nearby populated area. Some of the artifacts were damaged. The undamaged artifacts have been taken to the Thrissur Archaeological Museum.

The chettuva Port now only focuses on fishing. The continues efforts of various people eventually led to the development of such harbour. Communist Party took the initiative for this. Krishnan Kaniyamparambil, the MLA, who proposed in the legislative assembly that a fishing harbour be started at Chettuva. TK Padma, the Minister of State inaugurated harbour in 1996. There are total of 16 wards in Engandiyur panchayat, of which Chettuva is the first. The total population of the panchayat is 22,449, of these 16232 are males and 12237 are females. Chettuva Juma Masjid is one of the important mosques in Kerala. Chettuva *Jaaram* is also familiar. Chettuva Nercha is the huge festival in Chettuva. There is a school and hospital at Chettuva. The Government Mappila School in Chettuva established in 1921. The TM Hospital of Chettuva started by NRI business man EK Ramachandhran in the year 1973.

The Chettuva backwater start at Enamakkal Lake and empties to Arabian Sea. In 2010, the Government of Kerala has declared Chettuva as a Heritage Village.

History of Chettuva

Chettuva was a famous port in ancient Malabar. It was a commercial center at the beginning of the twentieth century. Chettuva was ruled by Ayirur dynasty. The Ayirur dynasty got Chettuva from Cheraman Perumal. The port of Chettuva played a

significant role in the history of Chettuva. It was a rich port in Malabar. There were many internal and external attacks towards Chettuva. With the arrival of Jews, Christians and Muhammadans in Kerala, Kerala began to have relation with foreigners.

The first European power to reach Kerala was Portuguese. The foreign traders and travelers often relied on the Chettuva port to reach Kerala. Chettuva had also good relation with Greek. So Chettuva was also known as Yavana valanadu. Chettuva was under the kingdom of Kochi. In the early 1500s, the Zamorin and Kochi clashed at Chettuva and Zamorin conquered Chettuva from Kochi. During 16, 17, and 18th centuries foreign powers alternated between Kochi and Zamorin. Earlier Arabs and Chinese had settled in Chettuva. The Ayirur family branch and the Perumbadathu family branch settled at Chettuva Manappuram. The southern part of Chettuva belonged to Ayirur or Sharkara Kovilakam.

Chettuva was one of the favorite place of Dutch in Kerala. This is due to its geographical location. It was very convenient to the exports and imports of goods from Chettuva through water transportation. It was less risky. The Dutch named their main cargo ship as 'Chettuvai'. Following a strategic move by the Dutch governor, the Zamorin gave Chettuva to them for trade. In 1714 Dutch built a fort at Chettuva.

The climate and the nature of Malabar are alike unfavorable to road making. Up to the time of Mysorean invasion, the rivers and the backwaters of the district were the main channel of trade. The Chettuva backwater was very important. The commercial importance of these inland waterways was not lost upon the foreigners who centuries ago came to Malabar in quest of spices. Chettuva at the mouth of a widespread system of backwaters was held by Portuguese, Dutch and English. Under Hyder, Dutch power remained relatively secure. Tipu Sultan, son of Hyder Ali, came to power in Mysore in 1782. With the fall of Hyder Ali in Malabar, he needed the help of his Tipu Sulthan to regain power. Tipu Sulthan is one of the controversial rulers in Indian history. The British historians have been biased towards Tipu. Tipu was considered as a Hindu hater. But almost his high officials including Divan was in Hindu religion. There was a propaganda among the people at that time that Tipu was a man who was forcibly converted to Islam. But, had he forcibly converted, the number of Shia Muslims in Malabar would have much higher than today. He prohibited polygamy and banned alcohol.

However Chettuva was very rich in its geography. The river and the connected backwater in Chettuva was very famous among the foreign and inland traders. They often used Chettuva River their exports and imports. Chettuva was often used as a hiding

place during the times of war to escape from enemies. They escaped through Chettuva Lake. There is no doubt that because of these features, the foreign powers, the Mysorians and also the native powers were claiming rights over Chettuva.

Present Condition of Chettuva

Chettuva has made its mark in colonial history. The Chettuva port, the lake, and the availability of spices and other goods attracted number of people into Chettuva. In the following centuries the old glory of Chettuva was lost. However, a lot of new developments have taken place in Chettuva. The main developments are Chettuva harbor, T.M Hospital, Chettuva School, Chettuva Bridge, and Raja Island. Over the years the population in Chettuva has increased exponentially. As a result, the area under paddy has decreased and the number of houses in the area has increased.

Majority of people in Chettuva was economically backward. They suffered poverty. They depended on traditional occupations like, fishing, coir production, sale of toddy, mat weaving etc. The income from these occupations was very low. The people can't fulfill their basic needs from these occupations. Chettuva's financial situation changed significantly with effort of Lanchi Velayudhan. He had taken many people of Chettuva to Gulf in Lanchi. Lanchi is like a raft. People went to the Gulf to

improve their current living conditions despite knowing that going on a lanchi was a risk. Most of the people who were with Velayudhan got jobs in Gulf. Some had to return their home. With this, expats are emerging in Chettuva. Chettuva otherwise known as Lanchi Velayudhan's Chettuva, because he made significant changes in Chettuva. The living conditions of many natives developed with his efforts.

The present condition of William Fort at Chettuva is deplorable. Chettuva Fort has witnessed many historical moments. Earlier the Zamorin, the Dutch, Tipu Sulthan and the British were claimed the fort. The main reason for its decline was the estuary towards the fort began to move slightly to the South, with this the interest of foreign powers in Chettuva diminished. The government has taken various measures to protect the historical Chettuva Fort.

The geography of Chettuva has both advantages and disadvantages. The geographical conditions have led to both economic gains and loss. Some part of Chettuva offers beautiful views and experiences, but the other side is unbearable. Due to its coastal location during heavy rains, tidal surges, and low pressure in the sea, the residents of Chettuva faced many problems like floods, unemployment and poverty.

Conclusion

Chettuva is an important place in the history of Kerala. The local history of Chettuva provides various informations like social, cultural, economic, political and religious life of the people of Chettuva. The Chettuva port, William Fort at Chettuva, Chettuva River are essential factors in the early history of Chettuva. These are the factors which make Chettuva popular. The foreign powers also attracted to Chettuva, because of the geographical condition of Chettuva. Chettuva port was a famous trading centre. Now it is known as Chettuva fishing harbour.

Chettuva had trade relations with Arabs, Geeks, European powers etc had trade relation with Chettuva. The port, availability of spices in nearby areas attracted the merchants to Chettuva. Chettuva is a historical place, which witnessed various wars and conflicts between Zamorin and Cochin rulers, Portuguese, Dutch, and finally the war between British and Mysoreans. There are huge references about Chettuva in the works of foreign travellers. Chettuva Fort is very significant in the history of Chettuva. Which was constructed by Dutch. Various conflicts are emerged here in order to capture the fort.

Chettuva River and Mangroves played an important role in the social and economic life of the people. The people depended on river for their livelihood. Fishing, agriculture, coir production

toddy sailing etc are their major occupation. Various people depended on gulf countries for better income. The Raja Island and the associated Raja Ayurvedic Resort is the major contribution to tourism sector. Lot of developments taken place in Chettuva like, TM Hospital, Government Mappila School, Libraries, Chettuva Bridge, various restaurants etc. The main feature of Chettuva is the religious harmony. Lack of pure drinking water is the main challenge faced by majority of the people of Chettuva. Panjayath introduced several programs for this. They conducted various health camps for villagers. Today the damaged William Fort at Chettuva is remaining. It was taken over by State Archaeological Survey.

References

1. Innes C.A, *Malabar Gazetteer*, Kerala Gazetteers department,1997
2. Logan William, *Malabar Manual*, Matruboomi Books, 2009
3. Vikasana rekha 2012-17
4. *Mathrubhoomi 05/June/2017*
5. Melattur Gifu, *Nadhikalude Kadha*, Green Books Pvt Ltd Thrissur, 2014
6. Padmanabhamenon K.P., *Kochi Rajya Charithram*, Matrubhoomi Printing and Publishing Company, 1989

7. Panikkassery Velayudhan, *Charithramurangunna Chettuvayum Chettuva Pareekkuttiyum*, Vachanam Books, Calicut, 2015
8. Panikkassery Velayudhan, *Sancharikal Kanda Keralam*, Current Books, Kottayam, 2001
9. Vasanthan S.K., *Kerala Samskara Charitha Nikandu*, State Institute of Language, Trivandrum, 2005
10. Vasanthan S.K., *Nammal Nadanna Vazhikal*, malayala padana gaveshana kendram, Thrissur, 2006
11. Vinodkumar R., *Keralathile Jillakalum Avayude Savisheshathakalum*, DC Books, Kottayam, 2011
12. Vengad C.P.F., *Keratile Kottakal*, Kairali Books, Kannur, 2009

FUZZY SET

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Abstract

This dissertation includes fuzzy set theory, properties and operation of fuzzy set, also we discuss about the applications. The main idea of the fuzzy logic is to capture the vagueness of the human thinking and to express it with appropriate mathematical tools.

Introduction

The fuzzy logic theory is based on fuzzy sets which are a natural extension of the classical set theory. A sharp set (also called crisp set) is defined by a bivalent truth function which only accepts the value 0 and 1 meaning that an element fully belongs to a set or does not at all, whereas a fuzzy set is determined by a membership function which accepts all the intermediate values between 0 and 1. The values of a membership function, called membership degrees or grades of membership, precisely specify to what extent an element belongs to a fuzzy set, i.e. to the concept it represents.

Fuzzy Set Theory

Membership Function of Fuzzy Set: For any set U a membership function on U is any function from U to the real unit

interval $[0, 1]$. The membership function which represent a fuzzy set A is usually denoted by μ_A .

Fuzzy Set: A fuzzy set is built from a reference set called universe of discourse. The reference set is never fuzzy. Assume that $U = \{X, X, \dots, X\}$ is the universe of discourse then fuzzy set A in U is define as a set of ordered pairs $A = \{(X_i ; \mu (X_i))\}$

Where $x_i \in U$ $\mu_A : U \rightarrow [0, 1]$ is the membership function of A and $\mu_A (X) \in [0,1]$ is the degree of membership of X in A .



Example: Universe of discourse $U = \{1,2,3,4,5,6\}$ then fuzzy set A holding the concept large number can be represent as $A = \{(1,0), (2,0), (3,0.2), (4,0.5), (4,0.5), (5,0.8), (6,1)\}$

Properties of Fuzzy Sets

Empty Set: A fuzzy set A , defined over a reference set U is empty if

$$A = \emptyset \iff \mu_A (x) = 0 \forall x \in U$$

Equal Set: Two fuzzy set A and B defined over a reference set U are equal if

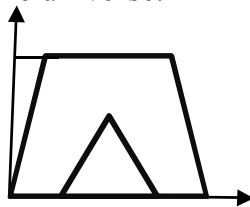
$$A = B \iff \mu_A (X) = \mu_B (X) \forall x \in U$$

Two fuzzy sets are equal if their membership reference set, ie if the 2 fuzzy sets have the same membership function.

Subset: Let A and B be 2 fuzzy sets defined over a reference set U, A is included in B if

$$A \subseteq B \iff \mu_A (X) \leq \mu_B (X) \forall X \in U$$

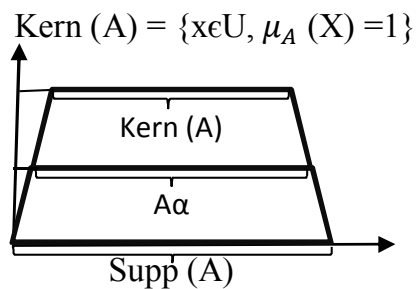
A fuzzy set A is included in a fuzzy set B if the degrees of membership of A are smaller or equal to the membership degrees of B \forall the elements of the universe.



Support Of A Fuzzy Set: The support of a fuzzy set A defined over a reference set U is a crisp subset of U that complies with

$$\text{Supp} (A) = \{x \in U, \mu_A (X) > 0\}$$

Kernal Of A Fuzzy Set: The kernel of a fuzzy set A defined over a reference set U is a crisp subset of U that complies with



Width of A Fuzzy Set: The width of a convex fuzzy set A with support $\text{supp}(A)$ defined on a bounded reference set is defined as

$$\text{Width}(A) = \text{Max}(\text{supp}(A)) - \text{Min}(\text{supp}(A))$$

Height of A Fuzzy Set: The height of a fuzzy set A defined on a bounded reference set U is defined as

$$\text{Hgt}(A) = \max_{x \in U} (\mu_A(x))$$

Cardinality and Relative Cardinality: The cardinality and the relative cardinality of a fuzzy set A defined over a finite universe U are defined as

$$\text{Card}(A) = |A| = \sum_{x \in U} \mu_A(x)$$

$$\text{RelCard}(A) = \|A\| = \frac{|A|}{|U|}$$

Operations on Fuzzy Set

The operations of complement intersection and union of the classical set theory can also be generalized for the fuzzy sets.

Complement of Fuzzy Set: The complement of a fuzzy set A defined over a reference set U is defined as

$$\neg A = \mu_{\neg A}(X) = 1 - \mu_A(X), X \in U$$

Intersection of Two Fuzzy Sets: The intersection of 2 fuzzy sets A and B defined over a reference set U is defined as

$$A \cap B = \mu_{A \cap B}(X) = \mu_A(X) \wedge \mu_B(X) = \min(\mu_A(X), \mu_B(X)), X \in U$$

Union of Two Fuzzy Sets: The union of 2 fuzzy sets A and B defined over a reference set U is defined as

$$\mu_{A \cup B}(X) = \mu_A(X) \vee \mu_B(X) = \max(\mu_A(X), \mu_B(X)), X \in U$$

Possibility of Two Fuzzy Sets: The possibility of 2 fuzzy sets A and B defined over a reference set U is defined as

$$\text{Poss}(A, B) = \max_{X \in U}(\mu_{A \cap B}(X)) = \max_{X \in U}(\min(\mu_A(X), \mu_B(X))).$$

Logic Operators and Geometry

It is known in mathematics that an isomorphism exists between set theory and classic propositional logic. The operators in logic are:

1. OR(disjunction(\vee)) $a \vee b = \max(a, b)$
2. AND(conjunction(\wedge)) $a \wedge b = \min(a, b)$
3. NOT(negation(\neg)) $\neg a = 1 - a$
4. IMPLICATION $a \rightarrow b = \min(1, 1 + b - a)$

Where $a, b \in [a, b]$

Equation can be written as

$$\mu_{A \cup B}(X) = \mu_A(X) \vee \mu_B(X) \quad \forall x \in X$$

$$\mu_{A \cap B}(X) = \mu_A(X) \wedge \mu_B(X) \quad \forall x \in X$$

$$\mu_{A^c}(X) = \neg \mu_A(X) \quad \forall x \in X$$

Families of Fuzzy Operators

Consider the fuzzy OR operator. In the fuzzy logic literature such an operator is required to fulfill the following axioms:

Axiom U1: Boundary conditions; $0V0 = 0$, $1V0 = 1$, $0V1 = 1$, $1V1 = 1$

Axiom U2: Commutativity; $aVb = bVa$

Axiom U3: Monotonicity; If $a \leq a'$ and $b \leq b'$ then $aVb \leq a'Vb'$

Axiom U4: Associativity; $aV(bVc) = (aVb)Vc$

Axiom U5: Idempotence; $aVa = a$

In the case of the fuzzy operator \wedge , axioms are also formulated in such a way that fuzzy AND is monotonic, commutative and associative.

Axiom N1: Boundary conditions; $0\wedge0 = 0$, $1\wedge0 = 0$, $0\wedge1 = 0$, $1\wedge1 = 1$

For the fuzzy negation we use the following axioms

Axiom N1: Boundary conditions; $\neg 1 = 0$, $\neg 0 = 1$

Axiom N2: Monotonicity; If $a \leq b$ then $\neg b \leq \neg a$

Axiom N3: Involution; $\neg\neg a = a$

Applications of Fuzzy Logic

Fuzzy Control of Washing Machine: When one uses a washing machine the person generally select the length of washing time based on the amount of cloths he/she wish to wash and the type and degree of dirt cloths have . To automate this process we use sensors to detect these parameters (ie volume of cloths, degree and type of dirt). The mathematical relationship between volume of cloths and dirt and the length of wash time required are to be formulated. But there is no easy way for this. Here the sensor system provides external input signals into the machine from which decisions can be made. It is the controller's responsibility to make the decisions and to signal the outside world by some form of output. A fuzzy logic controlled washing machine controller gives the correct wash time even though a precise model of the input\output relationship is not available.

By the use of fuzzy logic control we have been able to obtain a wash time for dirt and different degree of dirt. The conventional method required the human interruption to decide upon what should be the wash time for different cloths. But here the machine much more automatic and represents the decision taking power of the new arrangement.

Designing of Room Cooler Using Fuzzy Logic Control System:

This proposed model is the modification of Autonomous Room Air Cooler Using Fuzzy Logic Control System (ARACUFLCS). It is clear that the result shows better accuracy and minimizes the error. The proposed model makes the system accurate and efficient. In future it will help to design the advanced control system for the various industrial applications in environment monitoring and management systems. It is worth to mention that there is approximately 91.85% of improvement in proposed and simulated value for the fuzzy logic system.

Intellegent Traffic Light Control System For Isolated Intersection Using Fuzzy Logic:

In the intelligent traffic light control system, the extension time is not a fixed value. They are all fuzzy variables such as zero, short, medium and large. The number of cars sensed at the input of the fuzzy controller are also converted into fuzzy values, such as very short, short, medium, large and very large. In addition to the fuzzy variables as mentioned, the fuzzy controller also has an advantage of performing according to linguistic rules in the manner of how a human would use. The reasoning method in the fuzzy controller is also similar to that of the policeman handling the traffic flow at a typical junction.

Conclusion

Fuzzy systems, including fuzzy logic and fuzzy set theory, provide a rich and meaningful addition and standared logic.

The mathematics generated by these theories is consistent, and fuzzy logic may be a generalization of classic logic. The applications which may be generated from or adapted to fuzzy logic are wide- ranging, and provide the opportunity for modeling of conditions which are inherently imprecisely defined, despite the concerns of classical logicians. Many systems may be modeled, simulated, and even replicated with the help of fuzzy system, not the least of which is human reasoning itself.

In conclusion, as man gets hungry in finding new ways to improving our way of life, new, smarter machines must be created. Fuzzy logic provides a simple and efficient way to meet these demands and the future of it is limitless.

References

1. John wiley, *Fuzzy Sets and Applications*, Springer
2. H.-J Zimmermann, *Fuzzy Set Theory and Its Application*, Springer Science and Business Media, LLC
3. Kwang Hyung, *Lee First Course on Fuzzy Theory and Applications*, Springer Science And Business Media, 2004
4. James J. Buckley and Esfandiar Eslami, *An Introduction to fuzzy logic and Fuzzy Sets*, Springer Science and Business Media, 2013
5. J. Harris, *An Introduction to Fuzzy Logic Applications*, Springer Science and Business Media

6. William Siler and James J. Buckley, *Fuzzy Expert Systems and Fuzzy Reasoning*, John Wiley and Sons, 2005
7. Kaur, Dr. Devinder and Elisa University of Toledo: IEEE Journals: Fuzzy Traffic Light Controller.

A SOCIOLOGICAL STUDY ON THE EMERGING PATTERNS OF MARRIAGE

(Special Reference to Thrissur District)

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Introduction

Sociologists are interested in the relationship between the institution of marriage and the institution of family because, historically, marriages are what create a family, and families are the most basic social unit upon which society is built. Both marriage and family create status roles that are sanctioned by society (William Little and Ron McGivern ,2014).

Marriage is a social union or legal contract between people that creates kinship. It is an institution in which interpersonal relationships, usually intimate and sexual, are acknowledged in a variety of ways, depending on the culture or subculture in which it is found. Such a union, often formalized via a wedding ceremony, may also be called matrimony. People marry for many reasons, including one or more of the following: legal, social, emotional, economical, spiritual, and religious. These might include arranged marriages, family obligations, the legal establishment of a nuclear family unit, the legal protection of children and public declaration of commitment. The act of marriage usually creates normative or

legal obligations between the individuals involved. In some societies these obligations also extend to certain family members of the marriage persons. In cultures that allow the dissolution of a marriage this is known as divorce. Marriage is usually recognized by the state, a religious authority, or both. It is often viewed as a contract. Civil marriage is the legal concept of marriage as a governmental institution irrespective of affiliation, in accordance with marriage laws of the jurisdictions. If recognized by the state, by the religion(s) to which the parties belong or by society in general, the act of marriage changes the personal and social status of the individuals who enter into it (Mamta Manoram,2011).

Sociologists define marriage as a socially supported union involving two or more individuals in what is regarded as a stable, enduring arrangement typically based at least in part on a sexual bond of some kind (Ashley Crossman,2019).

Sociological explanations for the long-term decline in marriage include changing gender roles, the impact of feminism and female empowerment, economic factors such as the increasing cost of living and the individualization associated with postmodernism (Jeremy,2017).

In the modern era the social institution of marriage has observed many changed trends and the ones who are responsible to bring about those changes are the young individuals for whom the meaning, significance and purposes of marriage have entirely

transformed. Although we cannot completely state that marriage has lost its emphasis for the youth, but certainly it has undergone some radical changes. The Indian youth are now getting more influenced by the modern and western values, their perceptions and ideologies are getting reshaped within the structure of westernization, modern education, urbanization and reformed Legislations, and this has also impacted the implications of marriage within our Indian society. The youth of the modern era has come up with new and fresh dogmas and they rather seek the authenticity in the bonding of marriage, with the time numerous of things have changed and for the youth as well the institution of marriage has also been reformed as a sacrament of companionship, love and trust (Vikas,2015).

Objective:

1. To analyze the changing patterns of marriage system.

Concept Clarification

- **Marriage:** Malinowski says that “Marriage is a contract for the production and maintenance of children”.

In the modern society many changes take place in the institution of marriage. The traditional way of thinking that is marriage is a religious sacrament but in the recent years the marriage considered as a lifelong companionship. Like the other social phenomenon, the institution of marriage has also been

experiencing profound changes. Taking consent of the children for their marriage, declining stability of the marriage coupled with enhanced greed of the bridegroom's family are some of the perceptible changes occurring in the institution of marriage. An economic development, arrival of technology, increased materialism in the life, legislative efforts are some of the important factors responsible for generating changes in the institution of marriage. Universe is a population to be studied or measured the universe of the present study constitute the married people in Thrissur District. A sample is a position of a population but the sample is expected to be representation of a population 50 sample selected from Thrissur District with the help of simple random sampling. This study primary data was collected through questionnaire method and interview method. Secondary data are collected from books, articles websites. The major variables used in this study are education, religion, occupation.

Analysis and findings:

Data analysis and interpretation is that the method of assigning meaning to the data collected and determining the conclusions, significance and implications of the findings.

Here, the analysis focuses on the emerging patterns of marriage system. So, this study mainly analyzed the changing patterns of marriage system, changes in the celebrational aspects, and attitudinal changes towards matters related to marriage. Here we

draw the tables or graphs to analysis the matter. Each tables or graphs explain the matter. Below the tables or graphs there is a brief explanation. Which provide mentioned table.

The world is changing, it has reached to industrial society from pre-industrial societies. The advancement in technology, urbanization, industrialization, law, and education is leading to a change in patterns of marriage throughout the world. Due to the advancement and development, the traditional form of marriage is not practiced. People are giving priority to monogamous marriages as they have lost of advantages and is universally practiced. This chapter discuss about the changes in marriage patterns.

Table No: 1

Age and Right to select Partner

Response Age	Yes	No	Total
18-21	8 (80%)	2 (20%)	10 (20%)
22-25	24 (92.30%)	2 (7.69%)	26 (52%)
26-29	14 (100%)	0	14 (28%)
Total	46 (92%)	4 (8%)	50 (100%)

This table is analyzed on the basis of age of the respondents. This table shows that out of the total respondents' 92% of them got right to select their partner. Only 8% of the respondents' do not get any right to select their partner. Among the respondents belong to the 18-21 age group 80% of them got right to select their partner. Only 20% of them did not get any right to select their partner. As far as the 22-25 age group 92.30% of them got right to choose their partner and 7.69% of them did not get right to choose their partner. Among the respondents belong to the 26-29 age group 100% of the respondents get any right to select their partner. Thus, it could be interpreted that majority of the respondents' got freedom to select their partner in their marriage. Nowadays, the parents give the right to select partner their children rather than old generation.

Table No: 2

Income and Marriage Expense

Response Income	Loan	Borrow money	Saving	Total
5,000- 15,000	7 (28%)	4 (16%)	14 (56%)	25 (50%)
15,000- 50,000	3 (20%)	2 (13.33%)	10 (66.66%)	15 (30%)
50,000- above	1 (10%)	1 (10%)	8 (80%)	10 (20%)
Total	11 (22%)	7 (14%)	32 (64%)	50 (100%)

This table analyzed on the basis of education of the respondents. The above table shows that 64% of the respondents' use their marriage expenses through their savings. At the same time 22% of the respondents depends the financial loans and 14% of the respondents borrow money for marriage expenses. Among the respondents belong to the 5,000-15,000-income group above half (56%) of them use their marriage expense through their savings and 28% of them depends the financial loans. Only 16% of them borrow money for marriage expense. As far as the 15,000- 50,000-income group 66.66% of them use their marriage expense through their savings. At the same time 13.33% of them borrow money for marriage expense. And 20% of the respondents depends the financial loans. Among the 5,000-above income group 10% of the respondents depends the financial loans and 10% of them borrow money. And 80% of the respondents' use their marriage expense through their savings.

This table reveals that majority of the respondents' saved their money for marriage expenses. So, more people saved the money or other materials for marriage expenses.

Findings

- Majority of the respondents got freedom to select their partner in their marriage. Nowadays, the parents give the right to choose their partner their children rather than old generation.

The parents give the right to select partner their children rather than old generation.

- Most of the respondents give more importance to select their partner according to their personality.
- The educated people are not interested to give priority for ritual performance occurring at the eve of marriage.
- Majority of the people are not financially independent.
- Majority of the respondents saved their money for marriage expenses. So, more people saved the money or other materials for their marriage expenses.
- Majority of the respondents normally continue their profession or education.
- The majority of the respondents' used phone and social media's for inviting people for

Conclusion

Marriage is an important institution and it is based on the religion in our society. This study focuses on the emerging patterns of marriage system. In the field of changing patterns of marriage system, changes in the celebrational aspects of marriage and attitudinal changes towards matters related to marriage. However, the changes in marriage is still a continuing process. But even nowadays changes in marriage recently increased. This change is greatly influenced by the common people in the society. There are some visible changes could find among the older generation and

the younger generation in the perception of marriage. In these recent day's celebration of marriage on a grand scale with expensive and luxury celebrations have become a common feature. To a certain extent of marriage has lost its sacredness and importance. It is given to luxurious celebration rather than customs and traditions. And also, today they celebrate new trending events such as DJ party, Musical fiesta, Dance etc. At the same time the advancement in technology influenced the marriage greatly. The development in technology and lifestyle brings a lot of changes in ceremonies and celebration in our society. In the present society marriage is a symbol of wealth exhibition and showiness. The wedding industry has grown, and many companies have an interest in selling products and services to us using persuasive marketing techniques.

Today we can see more changes in marriage; but marriage faces many issues, especially the dowry system, extravagance in marriage functions. These are some of the challenging issues in the present societies. However, to deal with the practice of dowry we have certain laws, still 120 extravagance is out of the grip of the law. It is the high time that we restrict wedding expenditures through law. It is the high time to ban this extravagance socially, morally and above legally.

Bibliography

1. Jagannath. P, *Social Organisation and Social Structure*, SWASTIK PUBLISHERS & DISTRIBUTORS, Delhi, 2009, 28-44.
2. Jain Roshni, *SOCIOLOGY: An Introduction to Sociology*, AITBS PUBLISHERS, INDIA, Krishan Nagar, Delhi, 2017, 332-373.
3. Mandelbaum G. David, *Society in India*, SAGE Publications India Pvt Ltd, New Delhi, 2016, 329-337.
4. Manoram Mamta, *Encyclopaedia of Caste, Class, Kinship and Social System*, ANMOL PUBLICATIONS PVT.LTD., New Delhi, 2011, 307-327.
5. Murthy C.S.V, *INDIAN SOCIETY*, Himalaya Publishing House, Mumbai,2006,194-208.
6. Perry A. John, Perry K. Erna, *Contemporary Society: An Introduction to Social Science*, Dorling Kindersley India Pvt. Ltd, 2010, 329-337.
7. Rao Shankar C.N, *SOCIOLOGY: PRINCIPLES OF SOCIOLOGY WITH AN INTRODUCTION TO SOCIAL THOUGHT*, S. CHAND & COMPANY LTD., RAM NAGAR, NEW DELHI, 2000, Page No:327-347.
8. Schaefer T. Richard, *SOCIOLOGY: A Brief Introduction*, Tata McGraw-Hill Publishing Company Limited, NEW DELHI, 2006, 306-308.

9. Sharma Ramnath, *Introductory SOCIOLOGY*, Rajhans Prakashan Mandir, Ram Nagar, Meerut (U.P), 1962,306-317.
10. Thakur A.P, *Indian society*, GLOBAL VISION PUBLISHING HOUSE, New Delhi, 2010, 113-149.

INVESTMENT BEHAVIOUR AND PATTERN OF WORKING WOMEN WITH SPECIAL REFERENCE TO THRISSUR DISTRICT

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Abstract

Investment is an essential part of wealth creation in India. Investment is the sacrifice of an asset to attain an increase in value over a period of time. It is the sacrifice of certain present consumption for some future benefit. The consumption in the current period is foregone in order to obtain a greater return in the future. In finance, the purpose of investing is to generate a return from the invested asset. The return may consist of a gain or a loss realized from the sale of a property or an investment, unrealized capital appreciation or investment income such as dividends, interest, or rental income, or a combination of capital gain and income. Although investing is motivated by the prospect of future growth or income, there is always an element of risk connected with it.

Introduction

Investment behaviour is defined as how investors assess, predict, judge, analyse, and review decision-making procedures, which includes investment psychology, data gathering, definition and understanding research and analysis. An investor takes up an investment from the view of financial rate of return. He would

first ascertain whether the investment is profitable, whether the investment will provide adequate return according to the present value of money. In the present scenario women have greater importance as that of men? They have the equal rights in all aspects in the country. Many research on working women investors agree that they are not active investors, that they are less likely to assume above-average or significant risk when making investment decisions, and that their investing decisions are primarily based on family situations. The demand for safety and security, whether in the form of insurance, retirement plans, or future benefits for their children, appears to be the top priority in today's working women's minds. Nowadays, women are more educated than before and their earnings play a major role in their families. The modern women are now aware towards social issues and are trying hard to improve their status at large. Education and awareness have inspired women to come out of their home. Traditionally role of women was thought as, of the family and for the family, which has now changed due to active participation and support in national movement, helped them to secure position and offices in free India. Trends involving women education levels and workplace success remain to stress the importance of women as an economic force. While many women continue to seek advice from their family members to make a decision, working women have learnt to take charge of their money. Making investment decisions on makes a woman

more confident and raises her self-esteem, especially when she is married. With changing times, being financially independent is becoming a necessity. They want to invest their money and savings to handle critical situations at any stage of their lives.

The investor who is willing to take more risks will be compensated with higher returns. An investor with moderate risk would get moderate returns and the investor who is risk averse and takes very little risk will only get lower returns. Therefore, the degree of risk taking will determine the level of profitability. It is necessary to develop a strategy that attempts to balance risk with respect to remuneration by adjusting the percentage of each asset in an investment portfolio based on the risk-taking capacity of the investor, the financial objectives and the time horizon of the investment. Riskier investments are often expected to yield better returns. An investor may bear a risk of loss of some or all of their capital invested. When you make a low-risk investment, you can expect a poor return. Similarly, great risk entails the possibility of high rewards.

Objectives of the Study

1. To study the investment pattern of working women in the study area.
2. To identify the current awareness level of women towards financial avenues of investment.

3. To analyse the preference of women towards various financial avenues.
4. To understand the factors influencing investment decision of investors.

Investment is a crucial measure of economic progress. As a result, in today's economic climate, raising awareness of savings is unavoidable. Savings is a behaviour that is particularly prevalent among women. Even when women were not active earners in the past, they had the habit of putting money aside for unexpected bills and future activities. Women at the time were unaware of the different investment options available to them. The situation has completely changed as time has passed. Women investors who are ambitious have a lot of ideas in mind when it comes to making an investment selection. Security, wealth accumulation, comfort factor, tax efficiency, life insurance, income, simplicity, and ease of withdrawal are some of the key needs that an investor seeks to meet. Despite the availability of a number of investment opportunities, the majority of people still rely on the banking system to invest their money. They are either unaware of the alternative investing options accessible in the market, or they view such options as a danger.

Findings

- In this study, more than half of the respondents are under the age limit of below 30.
- Majority of the respondents are married.
- In this study nearly half of the respondents are graduate and some of the respondents are post graduate.
- In this study more than half of the respondents are working in private companies.
- Under this study more than half of the respondents have the income of 1 lakh to 5 lakhs and some of them are in between 6-10 lakhs.
- It is identified that nearly half of the respondents have the experience of 1-5 years.
- All of the respondents have demat account.
- Nearly half of the respondents are investing 1-5 percentage of their income.
- The study reveals that the source of information for some of the respondents are consultants and also some of the respondents have no assistance
- Under this study majority of the respondents are investing annually.
- The study identified that most of the respondents are investing in fixed deposits and in insurance products.

- In this study, most of the respondents are aware of the features of public provident fund, fixed deposit and insurance products. They are least aware of the debt instruments and various equity instruments.
- Majority of the respondents are preferring rate of return as the base in their investment alternatives.
- Majority of the respondents are considering the rate of return as the main factor in their investment decision making.
- Most of the respondents are satisfied with the prompt delivery of statement and transaction summary.
- Majority of the respondents are considering children and their education as the main reason for the investment.
- The study statistically tested and validated that, there is no significant relationship between annual income and investment in equity.
- There is no significant relationship between annual income and investment in mutual funds.
- There is no significant relationship between annual income and investment in insurance products.
- There is no significant relationship between annual income and investment in debt instruments.
- There is no significant relationship between annual income and investment in NSC, PPF and Government Bonds.

- There is a significant relationship between annual income and investment in fixed deposit.

Suggestions

- ❖ It is clearly identified that the majority of the respondents are not aware of the equity shares. So proper awareness program should be given to the working women in order to increase their awareness on them.
- ❖ It is clear that the respondents are not satisfied with the feedback procedures. The feedback should be solicited regularly.
- ❖ The company should give encouragement program to the women to improve their investment pattern and their frequency.
- ❖ Proper measures should be taken to improve the awareness of investors in bonds and NSC.
- ❖ Information about the Tax advantages level of the respondents are very low. It should be improved.

Conclusion

The study entitled “A Study on Investment Behaviour and Pattern of Working Women with Special Reference to Thrissur District” is mainly intended to focus on the awareness level of women as regard to various investment alternatives and their preference on various investment schemes. The study also

identified various factors affecting their investment decision and their satisfaction level.

Women are generally go for the safe and secure investment. This study also revealed that the respondents are mainly invested in Bank fixed deposit and insurance products. They are not aware about the equity instruments and various corporate bonds. It is also clear that most of the respondents are investing below 5 percentage of their income. The pattern of the investment of the respondents is also identified as annually. It shows that the investment patterns of the working women are very low compared to other investors. When we consider the investment alternative there should be proper awareness and assistance to make the decisions better. But in this study, it reveals that the assistance from the side of consultant is very low. It will adversely affect the investment decision of the respondents. The companies are also less aware of the grievance redressal. It is clear that the feedback solicitations are not very good. The study also concluded that the rate of return and the risk are the main factors in investment as always. Women are always conservative to the family. This study also can conclude in the same way because majority of the respondents state that the reasons for their investment are their children and their family. The return of the investment is just after the family and their security. The study also proves that there is no relationship

between the annual income and the various alternatives of investments other than fixed deposit. Fixed deposit has a significant relationship between annual income.

References

Books

1. Avadhani, V, A.(1996).“Investment and Securities Market in India”, *Investment Avenues, Third Edition, Himalaya Publishing House*
2. Prasanna, Chandra (2002) “Investment Analysis and Portfolio Management” *Tata McGraw- Hill publishing company limited.*

Journal Articles

1. Siddiqui,Imran&Pratiksha.(2020). “Individual investment Planning: A Review of Literature”, *International Journal Of Management, Technology And Engineering, volume 10, issue1*
2. Bhushan, P. (2014). “Relationship between financial literacy and Investment behavior of salaried individuals”, *Journal of Business Management and Social Sciences Research, volume 5, issue 3.*
3. Geetha,N&Ramesh.M.(2012). “A Study on relevance of Demographic Factors in Investment Decisions”.

Prospective of innovations, Economics and Business, volume 10, issue 1.

4. Malar.K&Kumkumapriya. A.(2012). “Review of Literature on Investment behaviour of Rural Investors”, *International Journal on science and research, Volume 3, Issue 7.*
5. Silvester, Mercy & Gajendran, Vijayakumar.(2020). A Study on Investment Behaviour of working women in Chennai City”, *The International Journal of Analytical and Experimental Modal Analysis, volume 12, issue 2.*

Websites

<https://www.investopedia.com>

<https://shodhganga.inflibnet.ac.in>

<https://www.forbes.com>

<https://economictimes.indiatimes.com>

**THE FATE OF ENVIRONMENT AND IT'S
DIMINISHING LIGHT OF EXTINGUISHING KADAR; A
HISTORICAL CONCLUSION**

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Abstract

The Western Ghats had strong signs of culture preserved by the great of the forest culture. This land is the home to centuries-old primitive tribes. The study exhibit to Kadar community of Athirapilly - Vazhachal region of Chalakudy in Thrissur district, and manifest role in socio-economic especially in environment. The study pivot to HOW A PRIMITIVE TRIBAL GROUP INFLUENCE THE ENVIRONMENT IN PRESENT SCENARIO? So the study focus to the environmental condition of Athirapilly-Vazhachal region.

Key Words: Adivasis, Kadar Community, The Forest Tramway, Scientific Forestry, Athirapilly Hydroelectric Project (AHP)

Introduction

The Western Ghats had strong signs of culture preserved by great of the forest culture. This land is the home to centuries-old primitive tribes. There are many communities in the forests of Kerala who had long been isolated from the mainstream of culture

and have maintained their individuality in rituals and living conditions. Tribes are one such group in Kerala. Tribes in Kerala are indigenous population found in the southern Indian state of Kerala. Most of the tribal people of Kerala live in the forest and maintains of Western Ghats. Kadar, Cholanaikkans, Kurumbas, Kattunaikkans and Koragas are five primitive tribal groups in Kerala. The study focus to one among the five vulnerable group that is “KADAR” community in Athirapilly Vazhachal region of Chalakudy in Thrissur district. They have unique custom and traditions. They are living in the dense hilly forest by preserving their own identity. A key area of study is “How a primitive tribal group influence the environment in present scenario”, so study focus to the environmental condition of Vazhachal region. While comparing with other rivers in Kerala, Chalakudy has the highest number of dams built as part of hydro electrical projects. The river has half dozen dams and all of them are coming inside the Athirapilly - Vazhachal forests. Their construction and maintenance too had contributed immensely to the damages suffered already by the riparian ecosystem, and these species were protected by primitive community “KADAR”.

Concept

INDIA is considered as one of the ten richest forest countries in the world with forestry claiming a long history within the country. Tribal are the most vulnerable sections of the

population in India. Tribal in Kerala (Adivasi's of Kerala) are the indigenous population found in the southern Indian state of Kerala. Most of the tribal people of Kerala live in the forest and mountains of Western Ghats, bordering of Karnataka and Tamil Nadu. Adivasi's, meaning original inhabitants, are the indigenous communities that have been living in the forested highland of Kerala. Colonial anthropologists and administrators chose to describe these communities as 'Tribes' and the post-colonial state created a 'Scheduled Tribes' slot to include them in the constitution. When we look to Adivasi of Kerala we can see certain common features such as, Definite common topography, Sense of unity, Endogamous group, Common dialect, Blood relationship, Common culture etc.:

In 1973, the Debar Commission created primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal group, in 2006, The Government of India renamed the PTGs as Particularly Vulnerable Tribal Group(PVTGS). The PVTGs in India are seen distributed in 15 stats/union territories. In Kerala there are five PVTGs are follows:

- The Koraga of Kasaragod district.
- The Cholanaikkan of Nilambur Valley, Malappuram district.
- The Kurumba's of Attappady, Palakkad district
- The Kadar of Cochin area

- The Kattunayakan of Wayanad, Malappuram, and Kozhikode district.

This study exhibit, to one among the PVTGs that is ‘KADAR’. Kadar is one of the five particularly vulnerable tribal population, is distributed in Parambikulam, Kuriyarkutty, Nelliampathy and Kodassery forest areas coming under Chittoor taluk of Palakkad district and Vazhachal forest division, to the south of it and in the vicinity of the Athirappilly waterfall on riverside of Chalakudy. Before discussing the Kadar tribe, we want to know about the importance of Athirappilly – Vazhachal forest area.

Athirappilly – Vazhachal the most famous locations in Kerala, visualize many enchanting experiences from the nature attracts domestic as well as international tourists. This forest area had, different type of waterfalls, mountains, valleys, thick forests, greenery, flora and fauna etc.: - Both Athirappilly waterfalls and Vazhachal waterfalls are the part of Chalakudy river in Thrissur district, Kerala. Vazhachal waterfalls and Vazhachal picnic spot are 5km from Athirappilly waterfalls with lush green forests and lofty trees on its left side, a stream having good fall of water and a small garden. Very rare and famous medicinal flora found in Vazhachal forest area. Some of them are *Artocarpus Hirsutus*, *Antiari*, *Toxicaria*, *Canarium Straiatum*, *Vateria Indica*, *Canes*, *Reeds* and *Bamboos* etc.: - The Vazhachal forest area maintains its abundant

animal and bird assess. Some of them are Asiatic elephant, Tiger, Bison etc.: - Birds such as Hornbill seen in this area. As well as the special feature of this region, we can find “Primitive Tribe” that is “Kadar”.

Kadar are ‘Primitive Tribe’ from the forest of Palakkad and Thrissur districts of Kerala. In Malayalam, Kadar means ‘Forest Dwellers’. L.K Anantha Krishna Iyer in his book *‘The Cochin Tribes and Caste volume 1’* and U.D Ehrenfels in his work *‘Kadar of cochin’* gave a detail account of Kadar tribe. As per State Tribal Welfare Department there are only about 1,848 Kadar in Kerala. Now among this 850 reside in Vazhachal region. Kadar they highly dependent on the forest for their livelihood, especially Non Timber Forest Produce (NTFP) such as honey, wax, fish etc.: - They had knowledge of ethnobotany especially in the field of medicinal plants. Early period they stick to nomadic life pattern.

Kadar Community were unique in socio-cultural and economic aspects, especially in the habitations, marriage custom, family life, religion, occupation, language etc.: - The idea of habitations comes from the concept of ‘Defence’ which made them motive for grouping of huts into villages called ‘Pathies’. They settled in dense forest and usually built huts with bamboo and rarely of timber. Kadar they stick to exogamy and paternal personality that predominates. The member of the pathy are under the control of headman called ‘Mooppan’. He presides the marriage, funeral

and other ceremonies. The office of Mooppan is not hereditary, he is nominated by the elders. He along with other elder member decides on social issues and complaints of Pathy. When we glance the religion of Kadar, it is 'Rude Animism'. They are god fearing set of people and are the particular worshipers of Kali, Ayyappan, and their dead ancestors. Kadar engaged in collecting minor forest produce which were under the control of government and collection of which was done in a contract for the certain sum of money. There were many controversies in the concept of race. One school of thought headed by Dr. Guha believe that the Kadar belong to Negrito race, many of them opposed it. Most of them follows primitive customs and manners. They spoke both the Tamil and Malayalam language. L.K Anantha Krishna Iyer, in his book 'The Cochin Tribes and Castes vol.1' called this language as 'Malasir'.

Kadar society were affected by many acts and policies. There were follows: -

A. The Forest Tramway

The main intention behind the formation Forest Policy Resolution 1892 in British Indian was to serve the agricultural interests of the colonial state. As the result of this, by 1907, the tramway become operational. In some year Forest Steam Tramway Act was enacted and this act didn't have any mention of the Kadar of the area and their rights. The intention of colonial people was maximum timber extraction and revenue generation.

B. Scientific Forestry

As part of the state project of implementing ‘Scientific Forestry’ which was inspired by the National Forest Policy (NFP) a large of natural forest was converted into plantation in the Vazhachal forest division, which adversely affect to Kadar Community and Riparian species of particular area.

C. HYDROELECTRIC PROJECT

Hydroelectric project was the latest issue faced by the Kadar as well as ecology of particular area. Recently Kerala government has approved the propose Athirappilly Hydroelectric Project (AHP) on the Chalakudy river in Thrissur district of Kerala State. Recently Kerala State government has given Non-objection certificate to the KSEB for a proceed project for implementation. AHP project results various environment threats to the society. This project will affect the riparian species of particular area and also it will be great impact to varieties of fish in Chalakudy river, as well as Kadar tribal settlement will be dismantled and displaced.

Conclusion

‘The environment is not separate from ourselves. We are inside it, and it is inside us. We make it and it make us’, said by a tribal women Yanomami. Yes, it is true and that what we glimpse in this study. Even after 75 years of independence the sons of the soil remain unnoticed in the hilly areas without proper attention.

They regularly faced the issues their livelihood. They turned jobless and engaged in menial works in local shops. Government provide some benefits to this society but in some they don't. So it is the duty of society to give them special consideration as they were aborigines of Kerala society and don't make them as isolated ones. If we consider them as isolated ones, it becomes a major mislay to future generation. I always think that, **WHY A HISTORICAL CONTENT IS CONFINED ONLY IN BOOKS? WILL THIS COMMUNITY STILL BE LIMITED IN BOOKS?** They should always be living historic content in this society. So don't think that it is the duty of political organization to protect them, it is also the duty of the society to protect this Kadar community. Otherwise it too will become just a **historical record**.

It is important to take steps for the development of the state; however, such development must be sustainable. Today when the world is fighting climate change, it is disheartening to see the project like the Athirappilly Hydroelectric Project(AHP) are being approved by government. The concerned project has the potential to cause the extinction of riparian species and tribal communities in this area. Kerala is the most literate state in India and it needs to set an example by cancelling the AHP as it is recipe for disaster. It is high time that such project which have the potential to harm the ecology should be banned. Instead, the focus of the government should shift to projects supporting solar and wind energy which are much cheaper and eco-friendly.

‘It is our collective and individual responsibility to preserve and tend to the world, in which we only’, said by Dalai Lama. So an apprise to the outer world is that, **‘NO CONSERVATION WOULD BE POSSIBLE WITHOUT COOPERATION OF THE LOCAL COMMUNITY, ESPECIALLY THE ABORIGINS’**. Integrating their traditional wisdom with modern day scientific approach would definitely yield result, and inform future generation that, the importance of primitive tribe and protection of environment.

References

1. L.K Anantha Krishna Iyer, *The Cochin Tribes and Caste vol.1*, Higginbotham, Madras, 1909, pp.1-28.
2. U.R Ehrenfels, *Kadar of Cochin*, University of Madras press, 1952.
3. Biodiversity Conservation Plan for Vazhachal High Value Biodiversity Area (2010-2020), Kerala Forest Research Institute, October 2014.
4. Dasley Jose Kjosavik, *Articulating identities in the struggle for land: the case of the indigenous People (Adivasi's) of Highland Kerala South India*, *Collque International*, “Les frontieres de le question frontier. At the frontier of land issues”. 2006.

5. Divya Kalathingal, *Conservation a Contested Story: The State and the Kadar Adivasi's, India, 16/1 Law, Environment and Development Journal (2020)*, p.20.
6. Seetha Kakkoth, *The Primitive Tribal Groups of Kerala; A situational Appraisal*, Department of Anthropology, Kannur University, Centre at Palayad, Thalasseri, Kannur district, July 2005.
7. K.A Shaji, *An Adivasi Community in Kerala has United to Save the Region Dwindling Hornbill Population*, 30/12/2019.
8. Meenal Sharma, *Legal Concern Regarding the Athirappilly Dam: impact on the Environment*.

SOCIAL PROBLEMS OF WORKING WOMEN

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Introduction

Throughout history, the central role of women in society has ensured the stability, progress and long-term development of nations. Even though women included in every field of society, inequality and injustice prevailed. Patriarchal and oppressed society with different inhumane stratification systems led to the immense suffering of women in various parts of the world. Women make powerful movements against this nefarious mindset towards them.

In India, women willing to stand against these patriarchal inequalities and discriminations stamped as anti nationals and have to face a lot more than any women in the world. They subjected to the heinous agendas of fascist ideologists and their wickedness. India is today standing at the grave danger of plunging into an ideology that threatens women. Both the ideology and the many pronouncements of leaders of RSS and its many affiliates, confirm that women in their scheme occupy a subjugated position (Akhileshwari Ramagoud, 2018).

The biggest challenge facing women is patriarchy and it is especially evident in the realm of politics. Regardless of a woman's experience, education or abilities, the patriarchal nature of society fosters the perception that women are less qualified

and less competent than men (Keisha N Blain, 2019). Kerala society is more favourable and inclined or biased towards the men than towards the women. High literacy rate in Kerala appreciated all over the world. But recent domestic violence and dowry death cases shows the pathetic situation of the women with higher educational qualifications.

There are many working women who chose to be social activists in addition with work- family responsibilities. They have had to fight to survive, to speak out, to roam the streets for justice. These multiple tasks drag women into lot of difficulties like economic, family, social and psychological issues. As they stand against the discrimination and atrocities of current fascist regime, they are subjected to the heinous agendas of authorities too.

Majority of women excluded from social, political and religious forefront and are ignored when they express opinion. Family- childcare problems, economic crisis, psychological issues are common for working social activists. They are exposed to sexual and verbal harassment. Threats when using social media platforms are also on the rise. This study 'Social problems of working women' trying to analyze the issues faced by working women especially those who are actively participate in social affairs.

Objectives

To analyze the socio- economic background of working women.

To know the problems of working women in familial sphere.

To study the participation and problems of women in the society.

To analyze the psychological problems of working women.

Concept Clarification

Social problem: Any condition or behavior that has negative consequences for large numbers of people and that is generally recognized as a condition or behavior that needs to be addressed (University of Minnesota).

Working Women: Working woman is simply a woman who is in paid employment. It is a woman who is gainfully employed; often, specifically, such a woman as distinct from housewife (Collins dictionary).

Analysis and Findings

The study analysed problems of working women in work, family, social and psychological spheres. The domination of men over women make things worse. To ensure the power on their hands forever, men make unfavourable rules and norms to women. Majority of women work to achieve economic independence and it shows that they want a relief from the economic domination on them. The ones who started work before marriage have access to their earnings than ones who enter work after marriage. Thus the interference of husband is less when woman started work before marriage. Most of the

husbands don't allow women to spend their earnings on their own.

As the women have not get enough time to teach and entertain their children and their concern on child's safety, they have the sole responsibility to taking care of the children. Men give every responsibility to women and walk freely. Compared to married women, widowed women are in grave condition because majority of them face bad treatment from in-laws. Women who live independent are stamped as arrogant and thus have to face many difficulties. Such stamping processes are the creation of men who don't want to lose the 'protector' position. The lack of support to working women can be seen when most of them tired of their household works and want to have assistance or help. They never get proper help in anything. Elderly care is also under women's responsibility.

Most of the Women join political and religious organizations only to serve humanity even though they are unwelcome. Majority of women faced with harassment, just ignored it and keep quiet and only few of them complained to the related authorities. They are feared of this male dominated society and the injustices. Men try to disgrace women when they get in higher positions in society. Members of political and religious organizations comparatively have opponents than other groups and this shows that, if the women try to enter the public, they have to jump more and more hurdles. Women exposed to

harsh difficulties such as sexual and verbal harassment when they chose to be social activists.

Majority of working women are satisfied and got confidence after enter the work sphere. And it shows that the extreme bad conditions in life make them say that. Their economic, social independence after get into work make them feel free. There is no women who haven't experienced health problems. They also experience severe psychological issues too. They get less time to sleep and rest. In Covid 19 pandemic situation, excess of duties are the major problems faced by working women and it again shows the ignorant attitude of men towards women in dividing responsibilities. The conflicting relationship between men and women make the society uglier and the power differences turn them into compete each other.

Work started state and Access to the earnings

Women' s access to their own earnings is in accordance with many factors. And the work started state of women is one of the important factor. Before marriage, most of the women do not have to spend on family and they have access to their own money. But after marriage, women' s earnings used in number of ways such as household expenditure, childcare, education of children etc. Even though both spouses earn and share wages, in Indian context, in patriarchal set up, earnings of women are most likely to controlled by husband. Below, the cross tabulation between work started state and access to earning of respondents.

Table No: 4.1

Work started state and Access to the earnings

Access to earnings	Spend money on their own	Can't spend money on their own	Total
Work started state			
Before marriage	25 (96.1%)	1 (3.84%)	26 (43.3%)
After marriage	23 (67.6%)	11 (32.3%)	34 (56.67%)
Total	48 (80%)	12 (20%)	60 (100%)

Table 4.1 shows that more than three fourth of the working women (80%) spend money on their own. Below quarter of them (20%) can't spend their earnings as they wish. Majority of the working women (96.1%) who enter work sphere before marriage can spend the money on their own. Only 3.84% of them can't spend the money as they wish. But in the case of working women who got job after marriage, below three fourth of them (67.6%) have the ability to control the expenditure. And more than quarter of them (32.3%) can't have the access to the money they earn. As compared to the women who enter into work after marriage, women who started work before marriage can spend the money on their own as they wish.

Working time and the effect of workload tension on family

Working time of women and the workload effects on family are related. After long time work, women enter home tired

and exhausted and then they have to fulfill household duties and child/elder care. Thus they are more likely to behave harsh towards the family members. Below, the cross tabulation between working time and effect of workload tension on family.

Table No: 4.6

Working time and the effect of workload tension on family

Effect of workload tension	behavior towards spouse	behavior towards kids	behavior to family members	Not affected	Total
Working time					
2-3 hours	0	0	1 (20%)	4 (80%)	5 (83.3%)
4-5 hours	3 (33.3%)	2 (22.2%)	0	4 (44.4%)	9 (15%)
6-8 hours	4 (11.4%)	10 (28.5%)	6 (17.1%)	15 (42.8%)	35 (58.3%)
more than 8 hours	4 (36.3%)	2 (18.1%)	4 (36.3%)	1 (9.09%)	11 (18.3%)
Total	11 (18.3%)	14 (23.3%)	11 (18.3%)	24 (40%)	60 (100%)

Table 4.6 cross between working time of respondents and the affect of workload tension on family. Below half of working women 's (40%) family not affected by workload tension. Nearly quarter of working women aggressive towards their kids 18.3% of them adversely behave to their spouse and other 18.3% of

them roughly behave to family members. Majority of families of working women who work only 2 to 3 hours (80%) are not affected by their workload tension. Below quarter of them (20%) behave roughly towards family members. More than quarter of women who work 4 to 5 hours are (33.3%) adversely behave to their spouses. Nearly one fourth of them (22.2%) aggressive towards kids. Below half of their family (44.4%) not affected by workload tension. 11.4% of working women who work 6 to 8 hours are adversely behave to their spouse. 17.1% of the family members of women who work 6 to 8 hour are suffered of rough behavior. More than one fourth of them (28.5%) are aggressive towards kids. Below half of their families (42.8%) are not affected by workload tension. More than one fourth of working women who engage in work more than 8 hours (36.3%) behave roughly towards family members due to over workload. More than quarter of them (36.3%) end up with adverse behavior towards spouse. 18.1% of them aggressive towards their kids. 9.09% of them not affected by workload tension. Thus, as working time increases women more likely to behave badly in the family atmosphere. And families with women working fewer time are comparatively with more peace.

Members of organizations and harassment from men

There is a cross connection between Membership in organizations and harassment from men. Women who are members of different organizations have to face different

conditions. Some organizations move women into grave condition as recently there are so many cases on political and religious leaders badly behave to women even they are in highest positions. Women who are social activists may face more harassment compared to women who stay at home.

Table No: 4.17

Members of organizations and harassment from men

Harassment from men	Faces harassment	Not faced harassment	Total
members of organizations			
Political organization	9 (75%)	3 (25%)	12 (20%)
Religious organization	12 (75%)	4 (25%)	16 (26.6%)
Residential organization	2 (18.1%)	9 (81.8%)	11 (18.3%)
Cultural organization	11 (52.3%)	10 (47.6%)	21 (35%)
Total	34 (56.6%)	26 (43.3%)	60 (100%)

Table 4.17 shows that three fourth of working women who are political organization members (75%) faced harassment from men. Quarter of them (25%) haven't faced harassment.

Three fourth of working women who are religious organization members (75%) have to face harassment and one fourth of them (25%) of them don't have to. More than three fourth of residential organization members (81.8%) doesn't have to face harassment. Below quarter of them (18.1%) faces harassment from men. More than half of cultural organization members (52.3%) face harassment and below half of them (47.6%) don't have to. Below half of working women (43.3%) not faced any harassment. More than half of working women (56.6%) have to face some type of harassment.

Majority of women faced with harassment just ignored and keep quiet. Only few of them complained to the related authorities and majority of the women who complained got negative response from authorities. Authorities just ignored, or laugh at them and only some of them got justice. Women face atrocities from their male counterparts like co workers, neighbors, family members, societal leaders and other people. Even in local groupings, educational institutions and government sectors like police offices women abused sexually. In cultural field, actresses are fighting against the atrocities by male actors and directors and it is shown in the 'me too campaign'. Malayalee actress's sexual harassment case is known by everyone and similar cases are rising day by day. Even in their own home women are not much safe. A survey conducted by Thomson Reuters Foundation has ranked India as the world's most

dangerous country for women. Now a days our India thrown into a worse situation where there is atrocities against women increasing day by day. Rising of anti Dalit- minority conscious among people promoted by Hindutva fascists also enhancing violence against women. Hathras rape and murder is one of the example of it. Kerala is also in a bad condition that rape cases, female trafficking and sexual abuses are risen. Palathayi case, Vaalayar case, Jisha murder etc are some of the examples.

Kerala politics is patriarchal

Kerala society is traditionally a patriarchal one. Even though Kerala women enjoy equality in some fields, politics is always tend to be patriarchal. Even in long- established mainstream political parties patriarchal divide can be seen. Below figure shows the opinion of working women on Kerala politics.

Figure: 4.11

Women who opine that Kerala politics is patriarchal

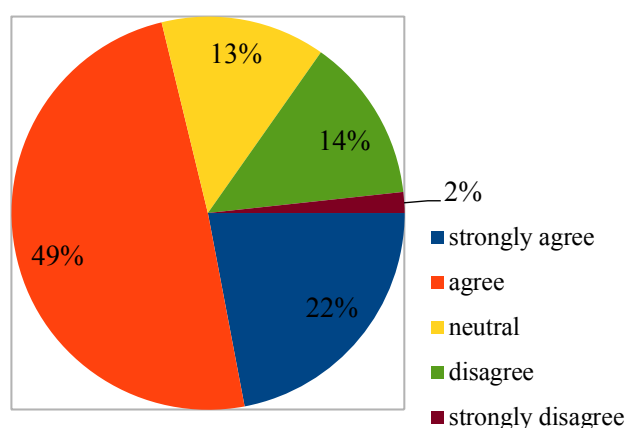


Figure 4.11 shows that nearly half of working women (49%) agree that Kerala politics is patriarchal. Nearly one fourth of them (22%) strongly agree as the Kerala politics is patriarchal. Below quarter of them (14%) opine that Kerala politics is not patriarchal. Other 14% of them strongly disagree that Kerala politics as a patriarchal one. Only 2% of them strongly disagree that the Kerala politics is patriarchal. So, majority of women think and opine that the Kerala politics is patriarchal.

Working time and health problems

There is a cross connection between working time of women and health problems they are suffering from. Most of the women now a days doing multiple roles and they have to meet the two ends of life with great efforts. Their working life contribute to many issues. As the working time increases, the burden on the women also increases, they may not get enough time to rest and so end up with many health issues. Along with psychological issues they have so many health problems too.

Table No: 4.25
Working time and health problems

Health issues Working time	Tired ness	Body pain	No Time To Relax	Mental Stress	Head ache	No Pr oblems	Total
2-3 hours	1 (20%)	1 (20%)	1 (20%)	0	2 (40%)	0	5 (8.3%)
4-5 hours	1 (11.1%)	2 (22.2%)	1 (11.1%)	1 (11.1%)	4 (44.4%)	0	9 (15%)
6-8 hours	8 (22.8%)	8 (22.8%)	6 (17.1%)	9 (25.7%)	4 (11.4%)	0	35 (58.3%)
More than 8 hrs	1 (9.09%)	4 (36.3%)	2 (18.1%)	3 (27.2%)	1 (9.09%)	0	11 (18.3%)
Total	11 (18.3%)	15 (25%)	10 (16.6%)	13 (21.6%)	11 (18.3%)	0	60 (100%)

Table 4.25 shows that below half of the working women who work only 2 to 3 hours (40%) have headache. Below one fourth of them (20%) are tired of their work. Below one fourth of them (20%) have no time to relax. Below quarter of them (20%) faces body pain. Below half of the working women who work 4 to 5 hours (44.4%) have headache. Nearly quarter of them (22.2%) have body pain. 11.1% of them are tired and other 11.1% have no time to relax. Also 11.1% of them faced with mental stress. Quarter of the working women who work 6 to 8 hours (25.7%) have mental stress. Nearly one fourth of them (22.8%) are tired of their work and other 22.8% of them have body pain. Below quarter of them (17.1%) have no time to relax. Few of them (11.4%) have headache. More than quarter of the

working women who work more than 8 hours (36.3%) have body pain. More than one fourth of them (27.2%) face mental stress. Below quarter of them (18.1%) haven't get enough time to relax. 9.09% of them are tired and other 9.09% of them have headache. Body pain is the problem that quarter of the working women (25%) have. Nearly quarter of them (21.6%) face mental stress. Below one fourth of them (18.3%) are tired. And other 18.3% of working women have headache. 16.6% of them haven't get enough time to relax.

The data shows that there is no one who haven't experienced health problems. Even women who work two or three hours have facing so much problems. Most of the women facing body pain after their dual work- household duties and professional work. They didn't get proper health care while they have to take care of others. They hide their pain and live for others.

Findings

Findings related to the problems faced by working women drawn from the analysis of responses are classified on the basis of four objectives namely socio- economic background, familial problems, participation and problems in society, and psychological problems of working women.

1. Socio-economic background of working women

As compared to the women who enter into work after marriage, women who started work before marriage can spend

the money on their own as they wish. There is notable difference between married and widowed working women on what they depend on for their livelihood. As compared to married working women, most of the widowed women have to meet their daily expenses on their own. As the size of family increases, women becomes more likely to enter work sphere to meet their expenditure and to get relief from family issues. And as the family becomes smaller, women sought job for enjoyment and for economic independence. Most of the teachers, accountants and doctors have no debt and as they are in comparatively safest profession. But in the case of social workers and women who doing business, they are suffered of debt. Teachers, accountants and doctors can simply recover immediate economic crisis because they have proper family assets to cope with. Even though business women possess family assets they also depend upon moneylenders. In the case of social workers, they are the most exposed ones to moneylenders.

2. Problems of working women in familial sphere

As working time increases, women more likely to behave badly in family atmosphere and women working fewer time are having peaceful family. Most of the women who take few time for traveling are not bothered of their child's safety. As traveling time increases, women becomes more tensed and more bothered of their child's safety. As working time increases, they are more likely to spend less time with their children. And women who

work less time get enough time to spend with their children. Widowed working women is in saddest condition and face bad treatment and discrimination from in-laws as compared to married working women. As the size of family increases there is much more help needed for women in household works. As the age varies, the help received from family members also varies. Majority of elder working women not received any help from family members; and they only got little help from male family members compared to female members. Younger working women also not getting a proper level of help from family members. There is a little change in the helping attitude of male members while comparing younger and older generation. The common assertion that in smaller families women don't have to aware of elderly taking care and in bigger families women should have to aware of elderly taking care is false and as size of family increases the help received for women to taking care of elderly also increases.

3. Participation and problems of working women in society

Most of the working women have the tendency towards joining cultural organizations. Majority of the Muslim women are members of religious organizations and they are too close with their religion. Also Christian working women take part in religious and residential organizations but not political movements. None of the Hindu working women are included in religious organizations. Majority of working women join

political and religious organizations only to serve humanity. And most of the women joining cultural and residential organizations are for economic and for personal benefit. Around half of working women thus want to serve humanity and work for the betterment of society. As the level of education increases in women the level of control on them by others decreases. Controversially women with high educational qualifications are mostly controlled and influenced by religious leaders. Also media plays vital role in controlling working women to develop and limit their opinions. As education of women increases, the capacity to be a leader also increases. Majority of women faced with harassment just ignored and keep quiet. Only few of them complained to the related authorities and majority of the women who complained got negative response from authorities. Authorities just ignored, or laugh at them and only some of them got justice. Although the majority of working women not having enemies, members of political and religious organizations comparatively have opponents than other groups. Transportation problems of women in closely connected to the traveling time they have taken for work. Most of the women who take few time for traveling haven't faced severe problems. As traveling time increases, women becomes more exposed to harsh difficulties such as sexual and verbal harassment. As educational qualifications of women increases, they have a more pleasant attitude towards religion. Almost every women who using social

media faced with problems. Majority of women think and opine that the Kerala politics is patriarchal.

4. Psychological problems of working women

As compared to married ones, most of the widowed women faced terrible situations in their life. Majority of working women are satisfied and got confidence after enter the work sphere. Highly educated women consider menstruation not as a problem compared to women who have lower educational qualifications. There is no working women who are not experiencing health problems. Even women who work two or three hours have facing so much health issues. Women who work more time get less time to sleep and rest. In Covid 19 pandemic situation, economic crisis and excess of duties are the major problems faced by working women.

Conclusion

In a patriarchal society like Kerala a particular boundary exists only for women. The general perception is that if some women are doing things differently, beyond people's limited imagination, and out of sync with traditional thinking, like going out for jobs, involve in social affairs etc, immediately they are branded as loose women. Kerala probably has still a long way to go to make our workplaces free from any prejudices, abuses and harassments. Even then we can still try at solving some of the related issues and problems with some possible solutions that

have been mentioned above so that women become stronger and are able to handle any adverse situations.

Bibliography

1. Ahmed, A., Nirmala, B. P., Reddy, N. K. Siddaramu, B., Vranda, M. N. (2010). Work–life balance among married women employees. *Indian Journal of Psychological Medicine*.
2. Akchurin, M., Lee, C. (2013). Pathways to empowerment: repertoires of women's activism and gender earnings equality. *American Sociological Association*.
3. Arab, R. O., Barati, A., Masoumi, S. S. (2015). Challenges and problems faced by women workers in India, *Chronicle of the Neville Wadia Institute of Management Studies & Research*.
4. Berry, D. R., Blainn, K. N., Cousin, E., Harris, K., Hoover, M., Klobuchar, A., Slaughter, A., Sommers, C. H., Tanden, N., Traister, R., Warren, E. (2019). What are the biggest problems women face today?. *Politico magazine*.
5. Bhandari, P. (2020). The challenges faced by Indian working women in various sector. *Palarch's Journal Of Archaeology Of Egypt/Egyptology*, 17(7).

6. Chacko, E. (2003). Marriage, development and the status of women in Kerala, India.
7. Dolly, K., Saleel, K. (2014). Problems of women employees in private shops and business enterprises, Kerala. *Journal of Women's Entrepreneurship and Education*.
8. Dutta, S. (2019). The challenges faced by women in the workplace. Vantage Circle.
9. Ely, R. J., Rhode, D. L. (2010). Women and leadership: defining the challenges. *Handbook of Leadership Theory and Practice*. Harvard Business Publishing.
10. Gender equality in Kerala: A quick study report. (2012). Kerala State Planning Board. Government of Kerala.
11. Kagzi, N. (2010). A study on socio-economic conditions of working women. Pacific publication.
12. Moghadam, V. M., Sadiqi, F. (2006). Women's activism and the public sphere: an introduction and overview. Duke University Press.
13. Mishra, S. A. (2010). Women and urban informal sector. Discovery publishing house.

14. Nazir, A. (2021). To compare the level of stress among working and non-working women in Srinagar. *Quest journals*.
15. Padmam, M. S. (2003). Destitute women in Kerala: psychological resources and psycho-social needs. Kerala research programme on local level development.
16. Razvi, M., Roth, G. L. (2004). Women's socio-economic development in India: the role of non-governmental organizations.
17. Rosa, K. D. (2010). Empowerment of women: The impact of employment. Abhijeet publications.
18. Smith, R. A. (2002). Race, gender, and authority in the workplace: Theory and research. *Annual Review of Sociology*, 28: 509-542.
19. Tiwari, A. (2017). Problem of working women in India. *Journal of Emerging Technologies and Innovative Research (JETIR)*.
20. Zimmer, L. (1988). Tokenism and women in the workplace: The limits of gender neutral theory.



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