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Mewar University

Knowledge to Wisdom

Mewar University

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BOOK REVIEW

CHAIRPERSON'S MESSAGE

Happy New Year and a Makar Samkranti. The Journal of Indian Research completes its first year of journey with the fourth volume. The smooth journey of the JIR was made possible by the efforts of the editorial team, research scholars from across the world and Mewar University and the feedback that we receive from scholars and institutions of repute.

The dawn of New Year also spreads the luminous light of wisdom over the northern most corner of our country. Makar Samkranti brings in auspicious phase of human journey. The Sun moves northward (*Uttarayaan*). Mewar University has decided to focus northward. It has spread its wings to the state of Jammu and Kashmir. We have established a R&D Centre at Srinagar. Our association with the state of J& K is enduring and deepening. There are nearly 600 students from the state who are studying in our University under the Prime Minister's Scholarship scheme. Majority of students belong to the backward districts like Kargil and Anantanag. MEWAR can be interpreted as acronym for Merit, Excellence, Wisdom, Aptitude and Research. Our focus is to provide higher education to the rural poor in the remotest part of the country.

I am hopeful that the horizon of research will encompass the state of J&K. J&K has been represented negatively for more than two decades. But, this was the centre of wisdom for centuries. The state is the seat of Ma Sharada, the goddess of knowledge. For centuries, seekers of truth flocked into the valley of Kashmir. The valley reverberated with Sanskrit mantras, chants and the dialogue among various systems of thoughts. Scholars from Tibet, Central Asia, Bengal, China, and Kerala congregated to refine the thought-processes. Kashmir gave the world one of the most refined philosophy of Śaivism. Today, Kashmir Śaivism. is one of the most popular disciplines taught to the students of religion, spirituality and Indology. The works of Abhinavagupta and Anandavardhana are being studied for rediscovering a heritage that can provide succor to increasingly narcissist post-material cultures. Vakyas of 14th century mystic-saint Lal Ded continue to echo in the valley and weave the message of love, compassion and philosophy of transcendence in immanence .

We have received a wonderful work from Professor Jeffrey Lidke on Kashmir Śaivism in the current issue which provides an insight into vibrant Kashmir of yore. We have another brilliant paper by Ambika Talwar on Peace Education. In the New Year, we look forward to spread message of peace in J&K and contribute to our fullest in reviving the glorious heritage of J&K.

Dr. Ashok Kumar Gadiya

Nalanda is an academic meme. We are enamored with the revival of Nalanda University in Bihar. For the government of India, this is a pilot project to project India's soft power to the Buddhist nations in Asia. The university will take time to attain critical institutionalization. But, the current mentors of the university are not clear in their vision at all. Without understanding Nalanda Tradition, Nalanda University cannot be revived.

Dalai Lama is the living master of Nalanda tradition. I heard him speak on Nalanda Tradition of Buddhism in Asia in a huge congregation at Indira Gandhi National Centre for Arts(IGNCA) on 13th November,2013. He mentioned in clear terms that Nalanda is not the building, but the knowledge tradition. Though, Nalanda University is in ruins, the knowledge tradition of Nalanda continues to thrive. But, what is the root philosophy of this tradition? Dalai Lama explained—the science of mind. Nalanda tradition is the study of mind, perceptions and what knowledge itself is. Nalanda masters were eager to find a cure for mental illness. Illness cannot be cured until the mind itself is investigated. This investigation itself was being done with an open mind.

In Buddhism and Jainism, there is no concept of Creator. Salvation has to come through self-effort. The predicament is self-centric in contrast with Semitic religions where a Prophet brings hope to people, a kind of other-centric predicament. The only way to salvation in Nalanda tradition is through end of ignorance, since the suffering is caused by illusions of all kinds. The ignorance can be removed through light of knowledge. Therefore, knowing the right knowledge itself is necessary before proceeding to investigate the site of knowledge viz. Mind. In fact, Nalanda masters investigated Buddha's own words and accepted only after logically validating the same. This tradition of scientifically investigating inner world must be preserved and promoted along with the modern scientific path of investigating physical world.

Nalanda stands for the art of harnessing critical wisdom. But, it is disheartening to see the current charioteers of Nalanda University sacrificing critical wisdom and cocooning the whole project under the garb of secrecy. In fact, critical wisdom is what is also disappearing among the followers of Nalanda Tradition themselves.

Last year, I participated in a programme organized by Project 84000 , a wishful project on translating Buddha's words. Wisdom masters like Prof. Samdhong Rinpoche(Chancellor, Sanchi University) , Kapila Vatsyayan, Dzongsar Khyentse Rinpoche and Chokyi Nyima Rinpcihe spoke on the theme of Buddha's words. The speakers placed before august audience minute details about the number of pages translated, the percentage of total and so on. Prof. Samdhong delivered the keynote address and explained how Buddha's teachings are still preserved in authenticity only in the Tibetan language due to the efforts of the Translation Committees before Langdarma's reign. The speeches were highly informative. The team is hopeful to translate 84000 teachings originating from Buddha's mouth himself, to attain true peace and freedom from suffering.

But, how are the scholars certain that Buddha gave 84,000 teachings only, nothing more and nothing less? Just like hagiographies of many saints full of fables and legends, the story of 84000 teachings narrated by Buddha is pure and simple ingenious invention. Ashoka is said to have built 84000 stupas. It is virtually impossible for a king to build so many stupas in single lifetime and that too when his own conversion came at a later stage of life. There are 84000 affective emotions in Buddhist philosophy and there are 84000 ways to counter their ill-effects. In Buddhist cosmogony, the Mount Meru is said to be 84000 yojana high. We also find how there are 84 Mahasiddhas in Buddhist tradition and their hagiographies are full of ridiculous stories. Now, the scholars of Nalanda Tradition are claiming scientific approach as well as this mythical thinking of structurating under the garb of Project 84000.

How can Tibetan scholars vehemently claim that Buddha's words preserved in Tibetan language in *Kangyur* and *Tangyur* is authentic words of Buddha? Prof. Samdhong responded with claims that since all the words were memorized by the Arahats, there is no chance of any aberration. He compares arahats with digital

computer, and their memories itself as that of the most powerful supercomputer. This is akin to positing mnemonic arrogance of a particular race. This is not critical wisdom of Nalanda tradition. Buddha never wrote. No one recorded his teachings. Ananda was his companion for his last 25 years and still he was not an arahat till Buddha died. The First Dharma Council was sponsored by King Ajatshatru in the Sattapaāāī Cave situated outside Rājagir three months after Buddha's mahaparinirvana. Buddha's Teachings were recited first by a senior monk and then chanted once again in chorus by all the 500 monks attending the assembly. This was approved as authentic only when the decision was taken unanimously. Imagine if Buddha had spoken 84000 teachings, it would have taken many years to build consensus. Not in one life time of even the youngest monks. Moreover, it was not recorded and aberrations and difference of opinions cropped up. Another Council was summoned one hundred years after the First one on trivial ground like teaching of Buddha with regard to storing salt in a bull's horn and so on. If the monks could not even agree on ascertaining Buddha's simple instructions, how was it possible for them to remember Buddha's serious teachings and philosophy perfectly only with the aid of memory.

Let us come to the medieval and modern centuries. In spite of having a written script culture, Tibetans do not recite great mantras properly. They pronounce '*pema*' for '*padma*'. *Lokachakshu* degenerates into Lotsawa. Tibetan monks neither follow indigenous linguistic universe nor the imported Sanskrit phonemes. It is like catching a horned rabbit. Just as Nagabodhi , the mahasiddha grew horn in mythical account, similarly the narrative of 84000 Buddha's teachings have grown like a wildfire. Earlier it is doused, better it will be for the followers of Nalanda Tradition.

Critical wisdom is the marker of Nalanda tradition and this has to be applied even against over zealot teachers. Contemplating over the thought of what Nalanda stood for made me to take a detour to the town of Nalanda. I was standing in the museum before a 9-10th century shila-patta(No.00002A, Nalanda Museum). Along with the image of an elephant and a fish, the most fascinating sight was that of a chimera- a fish with an elephant head and trunk. Iranian philosopher Reza Negarestani and electronic composer/sound artist Florian Hecker term Chimeras as *"integrated bodies that synthesize incompatible modalities, surpassing their respective particularities without fusing them, finding a common ground, or reducing one to the other*." Nalanda tradition in my view was such a chimerical tradition of synthesis. The place was visited by Jain Tirthankars and Buddha himself. They did not validate the concept of god. Nalanda produced the greatest logicians in Asia like Dingnaga, Nagarjuna and Dharmapala, yet it also spread the cult of Tara, Marichi and Prajnaparamita goddesses. This was the site of scientific study of microcosm and macrocosm in physical aspect, yet also the site of fabrication of legends about 84 mahasiddhas and their ruminations over human existence through non-logic and absurdity. Nalanda tradition stood for synthetic philosophy based upon critical wisdom and ingenious imagination. In fact, it was Asia's own site of chimerical knowledge.

The Journal of Indian tradition with its diversity of disciplines ranging from Kashmir Śaivism. to meteorology; spectroscopy to zoology is such a site of production of knowledge. The JIR is trying to push forward the authentic Nalanda tradition. The timely publication of the fourth issue of the first volume encourage us to further dig India's ancient wisdom for building a better way to comprehend the complexity of the cosmos. The archaeology of Nalanda tradition of knowledge is as important as the archaeology of material ruins. The JIR will be in the forefront of this effort in the coming year. Happy New Year 2014!

– **Niraj Kumar**

QUINTESSENCE OF THE HIGHEST PURPOSE:
A TRANSLATION, INTRODUCTION AND ANALYSIS OF
ŚRĪ ABHINAVAGUPTA'S PARAMĀRTHASĀRA

*Dr. Jeffrey S. Lidke**

ABSTRACT

Abhinavagupta (ca. 975-1025 C.E.) is the greatest synthesizer of Indian Tantric thought and practice. His works influenced and shaped theoretical paradigms in the field of Indian aesthetics, Tantra, literature, and philosophy. In this paper, the author examines the 105 verses of Abhinavagupta's Paramārthasāra (Quintessence of the Highest Purpose) in which Abhinavagupta articulates his philosophy of absolute monism, known popularly as Kashmir Śaivism. An earlier Paramārthasāra was composed by the South Indian legendary saint, Ādiśeṣa during the sixth century, some four hundred years before Abhinavagupta. Abhinavagupta's reinvention of this older text indicates the constant transaction of ideas between Kashmir and South India, Vaiṣṇavite and Śaivite sects. The present shape of Indian thought emerged only as a result of the fusion and appropriation of different thought-streams. A translation of the Paramārthasāra along with an introduction into Abhinavagupta's Monistic Śaivism has been herewith attempted.

Keywords: ābhāsa, Anuttara, kuṇḍalinī-śakti, Paramaśiva, Para Samvit, sahāsrāra, satguru, tattva, Trika, twilight language.

INTRODUCTION

The writings of the famous Tāntric guru and philosopher, Abhinavagupta (ca. 975-1025 C.E.), represent some of the finest reflections of Indian religio-philosophical thought. Of his many extant works, the Paramārthasāra (Quintessence of the Highest Purpose) offers a succinct distillation of Abhinavagupta's literary and philosophical genius while also encapsulating the system of esoteric practices at the heart of his Tāntric system. The one-hundred-and-five verses of this composite text lay out the śaivite vision of the universe as the unfolding of a unitary consciousness, called verily Paramaśiva, Para Samvit, Caitanya, Cit Śakti, and Anuttara. Through a process of hierarchical manifestation, this Supreme Principle assumes the form of thirty-six evolutes (tattvas), and in this way, projects the universe of diverse objects upon its own screen. At the core of this universal projection, the absolute assumes the form of the limited human experiencer. Veiling itself with the three cloaks (trimala), Paramaśiva assumes self-limitation (saṅkocana).Yet, this contracted experience is only temporary. Through the awakening of coiled power (kuṇḍalinī-śakti) received in Tantric initiation (dīkṣā) the limited agent (kartā) internally ascends the ladder of tattvas and reclaims his status as the omnipotent Absolute.

In this essay, I have attempted to illuminate how the Paramārthasāra serves as a guide for this process of the awakening and internal ascension of kuṇḍalinī-śakti. Towards this end, I have rendered my own translation of the

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text and have written a brief introduction and commentary with the aim of framing for the reader the context in which Abhinavagupta penned his masterful text. In this way it is hoped that my essay serves as an introduction to both the text and the Trika-Kaula tradition in which it arises. By tracing the history of this tradition, and by analyzing its fusion of philosophy and practice in the context of tantric sādhana, I hope to provide an illuminating glimpse into one of the most gifted minds in the history of Indian civilization.

CONTEXTUALIZING THE TEXT

As a guide for this voyage into the uncharted realm of Tantric practice, we will follow the map drawn by Abhinavagupta in his condensed text, the Paramārthasāra (PS). In 105 ārya-ghaṭa verses, this cryptic and highly codified text details the fourfold path (upāya-catuṣṭayam) to realization (śivattva).

The first English rendering of this text appeared in 1910 in an article entitled "The Paramarthasara of Abhinava-Gupta" by L. D. Barnett.[1] In the preface to this outdated yet useful translation, Barnett writes that his intention in publishing the PS is part of a further project in proving that the "living faith of the majority of modern Tamils is in almost every respect...the same doctrine that was taught in Kashmir about the beginning of the eleventh century by Abhinavagupta."[2] This argument for a connection between southern and northern śaiva traditions is clearly strengthened by the fact that Abhinavagupta's work is based on an earlier southern text of the same name.[3] Interestingly, this sixth century text, also known as the Ādhārakārikā, is authored by a South Indian Vaiṣṇavite Guru, Ādiśeṣa, known more popularly as Patañjali, the legendary incarnation of Viṣṇu's serpentine companion and the famous author of multiple important Sanaskritic works. That Abhinavagupta based his 10th-century śaiva text on this early work suggests not only that there was a shared corpus of texts between the North and South, but also a shared philosophical and practical basis among the numerous traditions then present in Kashmir.

As Silburn points out, this unifying basis was the Sāṃkhya -Yoga system. Ādiśeṣa's PS is essentially a Sāṃkhya text overlaid with Vaiṣṇava theology. It borrows the classic Sāmkhya dualism of contentless consciousness (puruṣa) and materiality (prakṛti), while reframing it in the context of Viśiṣṭādvaita.

THE TRIKA-KAULA AS A TRADITION OF EXPERIENCE (ANUBHAVASAMPRADĀYA)

While Abhinavagupta's PS is clearly an adaptation of this earlier text, we would be unwise to follow Chatterji's lead in labeling it as "only the Ādhāra-Kārikās with a few alterations here and there." In fact, only a quarter of Abhinavagupta's 105 verses directly parallel the Ādiśeṣa text. The remaining three-quarters are an expression of Abhinavagupta's own Trika-Kaula system and have no direct counterpart in the older text. For this reason Abhinavagupta states that his purpose is not simply to transcribe the Ādhārakārikās verbatim, but to elucidate them in "accord with the tenets of Trika-śaiva philosophy."[4]

Interestingly, taking into account the frequent double intentionality of Tantric "twilight language" (sandhā-bhāṣā), this same verse can also be understood to mean that Abhinavagupta has written the PS "in accord with [his] yogic intuition of śaiva doctrine." The crucial word in the text is dṛṣṭi (√dṛś, "to see"). Chatterji translates it as a synonym of darśana, or philosophical system,[5] while Barnett renders it as "mystic vision."[6] Certainly, these are not mutually exclusive renderings, but rather equally valid and important translations of dṛṣṭi.[7] Taken together, they reveal an essential feature of Indian philosophy: namely, its direct relation to direct experience (anubhava).[8] In other words, in the context of Indian philosophizing, "spiritual vision" is often the logical precursor to a "philosophical system"; consequently, one's own direct experience (anubhava) is a necessary and logical prerequisite to the writing of a philosophical treatise. Hence, we are to interpret Abhinavagupta's use of the word "dṛṣṭi" as a conscious attempt to appropriate its polyvalency. In other words, his intention is to show that his capacity to elucidate the principles of śaiva philosophy (darśana) resides precisely in his own yogic perception (dṛṣṭi) attained through sādhana.

This interpretation would clearly be in line with Abhinavagupta's own epistemological views that direct experience (anubhava) forms the apex of the three-fold means of correct knowledge (pramāṇa), whose base is scripture (āgama) and the word of the guru (yukti).[9] Indeed, Abhinavagupta considers Tantra to be a "tradition based on experience" (anubhavasampradāya).[10] Thus, the significance of the third verse of the PS is not only that it establishes the text's relation to an older scripture, but, more importantly, the author's own

attainment.[11] For this reason, Abhinavagupta's Trika-Kaula deserves to be viewed not solely as fuel for the fires of philosophical abstraction (tarkajvāla), but rather as a practical system "providing a viable means for the attainment of mokṣa."[12]

ABHINAVAGUPTA AS ADHIKĀRIN

In the final chapters of his Tantrāloka, Abhinavagupta narrates the special circumstances of his birth. Desiring to parent a siddha, or perfected being, Abhinavagupta's parents—Narasimhagupta and Vimalā—performed an esoteric ritual. Consequently, when Abhinavagupta entered the world nine months later he was viewed not as an ordinary child, but as a yoginībhū, a special child conceived from the union of a siddha and a yoginī during the course of Tantric ritual. Due to the extraordinary circumstances of his birth and the rich devotional environs of his childhood, Abhinavagupta readily acquired mastery of a wide array of subjects ranging from Buddhist doctrine to śaiva Tantra, to grammar and poetry. However, according to Abhinavagupta, the apex and culmination of learning came through his "studies" with the Kaula guru, Śambhunāth. It was from this teacher that Abhinavagupta received initiation into the esoteric Kula lineage. In this initiation he received the descent of power (śaktipāta) which produced a condition of embodied liberation (jīvan-mukta).[13]

Regardless of the authenticity of this autobiographical account, the fact that Abhinavagupta is compelled to narrate it in his magnum opus, the TĀ, suggests the prominent status of Tantric practice in his philosophical thought. As if compelled to justify his qualification for composing the TĀ, an authoritative synthesis of Tantric doctrine and practice, Abhinavagupta asserts that his authority lay in the very fact that he is quite simply a product of Tantra. Tantra is not something he learned solely from books, but is a practice that radically conditioned his birth and, later, produced his final enlightenment. In other words, in no uncertain terms Abhinavagupta is stating, "This doctrine is not simply something I have thought about; rather, it is a reality I have become." Logically, then, his emphasis is not on providing intellectual stimulation, but on transmitting his own experience and knowledge (jñāna). For this reason, he states clearly that his duty as a teacher is to awaken his disciples.[14]

Ultimately, as Müller-Ortega, points out, Abhinavagupta's teachings are to be seen as a method of realization leading to a state in which one "becomes something that moves in the Heart (hṛdayañgamībhūta)".[15] This state of inner absorption is something that, as Abhinavagupta himself points out, transcends the limits of language and for this reason the scholar attempting an exegesis of the Trika-Kaula, is bound to confront an intriguing hermeneutical challenge. Addressing this matter Müller-Ortega asks rhetorically:

Can we completely hope to understand Abhinavagupta?...[In attempting do so] [W]e immediately encounter an important and central cross-cultural perplexity. We have been using the term understand in its commonly accepted denotation: to have a thorough technical acquaintance with something. The term may be used in a stronger sense: Abhinavagupta distinguishes between an understanding that is purely intellectual, and one gained from experiential knowledge. There is an important sense in which to understand the Heart actually requires replicating the journey of return that is the tantric sādhana: we must play Śiva's game to its most serious and hilarious conclusion, which is the unmasking of Śiva within ourselves.[16]

As Müller-Ortega himself points, this type of radical understanding challenges the traditional paradigms of western scholarship. Still, the scholar of Tantra ought not ignore the fact that much of Tantric thought stems from and is geared towards contemplative experiences. In other words, much of Tantric thought is properly classified as pertaining to the realms of spiritual practice and its concomitant experiences. Does this mean that we should accept Frits Staal's bold assertion that to understand practice-based ritual traditions the scholar himself must learn the logic of its practice?[17] Abhinavagupta's unequivocal answer would be "yes".

However, Abhinavagupta's views would perhaps not fare well in the post-enlightenment environs of 21st-century academia. The deeply entrenched demand for scholarly distance and objectivity perhaps does not allow for the kind of full-bodied engagement that Abhinavagupta demanded of his own students. However, the equally important demand for hermeneutical accuracy necessitates a proper contextualizing of Abhinavagupta's system. In other words, although as scholars we may feel duty-bound not to practice sādhana, we are obligated nonetheless to be sensitive to the practice-based nuances of Abhinavagupta's densely coded writings.

This is not to say that pure philosophical inquiry has no place in the PS for such a statement would be far from the truth. Abhinavagupta's stature in Indian history is primarily due to his great gift for verbal expression. In a way unparalleled by any one prior to him, he was able to formalize the numerous esoteric streams of Tantra into a single, unified river of thought and practice. On this grand achievement Kamalakar Mishra writes:

> Abhinavagupta presents the otherwise difficult philosophy of Tantra in a cogent and coherent way that makes the Tantric position logically and rationally acceptable. What is complex in Tantra becomes simple in his treatment; what is esoteric and mystical becomes rationally understandable.[18]

Abhinavagupta's cogent systematization stems from his own initiation and training in the various lineages and philosophical schools (sampradāya) of his time. In other words, Abhinavagupta's philosophy is not the product of a single line of thought; rather, it is a rich synthesis of the multiple indoctrinations he pursued during the years of his own sādhana. In his person, the plethora of Tantric schools were united through the intensity of his own critical insight and fused into a single system in which the practices and philosophical views of the various schools were grouped as a hierarchy of ascending powers culminating with the esoteric branch of Āgamic Tantrism known now as Trika-Kaula, "The Family of the Triad".[19] And it was this ability to unify the plurality of Śaivisms into a single doctrinal system that makes Abhinavagupta's work so intriguing. Before his time, there was no single tradition. Rather, as Alper has pointed out, there were only "a series of overlapping preceptorial lines, and a plenitude of spiritual techniques available to each teacher."[20] Hence, it was through Abhinavagupta's teachings that these numerous techniques and lineages were subsumed within a larger theoretical framework that embraced them all. And it is this carefully crafted framework that is now commonly referred to as Kashmir Śaivism.[21] Although, historically speaking, there never was a Kashmir Śaivism, the fact that scholars now look at the traditions of Kashmir as a unified whole is due largely to Abhinavagupta (perhaps, then, the appropriate term would be "Abhinavagupta-ism"). For this reason no text better captures Abhinavagupta's gift-for-synthesis than the Paramārthasāra. A careful study of this brief yet dense text enables us to unpack the many levels of teachings and techniques he received and thereby appreciate the way in which he fuses them into a single Tantric "river".[22]

This introduction to the PS is intended to guide the reader through the multiple initiatory streams that Abhinavagupta himself journeyed in the course of his sādhana. In this way we can come to see that these streams-of-revealed-thought-and-practice were viewed by Abhinavagupta as ultimately united in a larger river-of-divine-consciousness that itself flows from and returns ever again into the infinite sea of radical freedom. The key to successfully charting this voyage lies in identifying the PS as a map for this most majestic of journeys. This text's purpose, as Abhinavagupta clearly states, is to guide the aspirant through the ascending levels of consciousness until there is the realization of one's identity with the Highest Purpose (paramārtha). It is along this route to the final destination that Tantric aspirant, or sādhaka, ontologically encounters the various philosophical systems as inner states of consciousness and being. In other words, in the initial stages of sādhana, when one's consciousness is still mired by dualistic thought patterns (dvaitavikalpa), the teachings of the dualistic scriptures (dvaitāgama) are necessary. However, as one advances in sādhana, one's internal ascension is paralleled externally by initiation (dīkṣā) into scriptural traditions which claim to grant states of non-dual awareness. Hence, in the external world there is a plurality of teachings and spiritual techniques. Yet, in the inner life of the sādhaka these distinctions are fused in a process of internal bodily ascension.

To understand the mechanisms of this ascension we must first come to grips with the central philosophical systems embedded in the PS and the principle tenets that undergird Abhinavagupta's thought. Constructing these tenets as our boat, we will then be ready to explore the vast, mysterious waters of sādhana that Abhinavagupta charts in the latter third of his treatise on the Quintessence of the Highest Purpose.

THE TANTRIC STREAMS

Abhinavagupta's Tantric Trika-Kaula 'river-system' is a careful re-channeling of four scriptural streams. One stream is the ancient Āgamic Śaivism, itself fed by three smaller tributaries based, respectively, on dualism (dvaita), dual-cum-non-dualism (dvaitādvaita), and non-dualism (advaita). A second stream is the Pratyabhijñā which receives its currents from both Āgamic waters and from the philosophical tributaries of Vedānta. The third stream, the Spanda, is similar to the Pratyabhijñā, in that while its source is the Āgamas it then branches off on a different

course before being redirected by Abhinavagupta. The fourth stream appears to be fed not only by the Āgamas, but from various sources ranging from Tamil Nādu in the South to Nepal in the North. This poly-sourced stream-of-revelation is the Kaula tradition with its emphasis on radical antinomian practices (called "left-handed", vāmācāra) as a means to immediate salvation. Of the many Kaula streams, there are two that flowed directly into Abhinavagupta's system: the goddess-centered cults of the Krama and the Trika. Apparently, Abhinavagupta experienced the Kaula waters as the most satisfying, for he claimed the Kaula to be the pinnacle of all traditions. And of the many streams that fed the Kaula system, he saw Trika as the greatest. In his words, Trika was to the Kaula as fragrance to a rose—its finest essence.[23] Hence, Abhinavagupta proclaimed his philosophy to be Trika-Kaulism. As we have seen, this Trika-Kaula river results from the confluence not just of the Trika and Kaula, but from the Āgama, Pratyabhijñā, and Spanda streams as well.

COMMENCING THE JOURNEY INTO THE HIGHEST PURPOSE

The opening verse of the PS crystallizes the Trika śaivas' paradoxical conception of the Śiva, the Trika-Kaula Absolute. Here, Abhinavagupta honors Śiva as the "one without beginning" who "dwells manifoldly in secret places" as "the receptacle of all."[24] In other words, for the Kaśmirī Tāntrikas, the Absolute is simultaneously one and many. Endowed with unlimited power (śakti), the Supreme Principle can manifest itself infinitely without losing its essential unity. For this reason, the universe, though appearing divided, is really only the flashing forth (ābhāsa) of the One. Abhinavagupta writes (PS 4-5):

> This sphere (aṇḍa, cosmic egg) ...is brought forth by the Lord through the bestowal of his innate power and might. This universe with its succession of manifold bodies, organs and worlds is within these spheres; and therein is the enjoyer, the embodied Śiva who assumes the condition of creatures.

In other words Śiva contains within Himself the ability to manifest distinctions within unity (bhedābheda). Yet, just as a crystal remains untainted by the various hues it adopts, so the Absolute remains one despite its appearance in the form of "gods, humans, animals, and plant-life" (PS 6).

The process of universal manifestation is elaborately explained by the Trika system through the doctrine of the thirty-six evolutes or tattvas. The supreme reality—called Paramaśiva, Para Samvit, Caitanya—is pure consciousness beyond the sphere of manifestation. In reference to its transcendent-ness Abhinavagupta refers to the Absolute as the "thirty-seventh tattva" in the TĀ.[25] Yet, this transcendent principle is also the ocean of consciousness out of which creation arises. For unlike the Vedāntin conception of Brahman as static consciousness, the Trika Śaiva absolute embodies both consciousness (caitanya) and dynamism or spanda-śakti. Acting as an inner pulse, the spanda-śakti unfolds the universe of tattvas within the body of the absolute (PS 10). Hence, in the Trika schema, the transcendent contains the manifest. And even during the time of cosmic manifestation, the supreme principle (para-tattva) remains "free of delusion, pure, peaceful and beyond creation and dissolution" (PS 11).

This capacity for internal self-manifestation is explained through a dialectic of illumination and reflection (prakāśa/vimarśa). Indeed, the Absolute is characterized as being endowed with these two principles (prakāśa-vimarśa-śakti). The Absolute embodies not only an illuminating consciousness, but also a reflective capacity for self-knowledge that plays out on all levels of manifestation. At the cosmogonic level, prakāśa is the first tattva, the śivatattva, and vimarśa is the second, the śaktitattva. These two, śiva and śakti, are understood to be the Lord (īśvara) and his consort, devī. In Tantric cosmogonic schemes the union of Śiva and Śakti gives rise to creation; and in a philosophical context the union of these two principles is the fusing of a knowing agent (pramātṛ) with the means of knowing (pramāṇa) which necessitates the need for a source of objective knowledge (prameya). Hence, in cosmogonic terms the prameya is the very universe itself, for the product of the union of śiva and śakti, prakāśa and vimarśa, pramātṛ and pramāṇa, is the additional thirty-four tattvas that form the basis of objective manifestation.

The key to understanding Trika-Kaula discourse is to realize that the prakāśa-vimarśa dialectic plays out at all levels of reality. Another way to say this is that each of the lower tattvas incorporates within itself those tattvas that precede it. Hence, even the lowest tattvas, the elemental substances (pañca-mahābhūta), contain within themselves the essence of the tattvas from even the most subtle stages of creation. Hence, the principle of illumination (prakāśa) and self-reflection (vimarśa) are present at all levels of creation. In other words, all

objects (prameyas) are constituted of prakāśa and vimarśa and for this reason Abhinavagupta claims that the knower, the means of knowing, and the object known comprise a triune Self. It is in this spirit that the Tantras state that there is nothing that is not Śiva.[26] Hence, the world itself, when properly understood becomes a basis for mystical realization. Indeed, the higher states of sādhana are said to consist in the awareness that the world itself is composed of the bliss experienced in yogic samādhi.[27] There is, in other words, no need to meditate in caves: the highest realization can just as easily be apprehended while doing such mundane things as sipping chai (Indian tea).

Abhinavagupta gives a potent metaphor for this extrovertive samādhi in his comparison of the relationship of the universe to the absolute with that of reflected images to a mirror:

> Just as the images of a town, a village, and other objects reflected in a mirror appear inseparable from the mirror yet appear distinct both from one another and from the mirror, in the same way, arising from the absolute consciousness of Para Bhairava, this universe, though inherently void of divisions, nevertheless appears internally apportioned and distinct [from Para Bhairava] (PS 12-13).

In this multilayered metaphor there are three important elements: the objects (nagaragrāmādi), the reflections, and the mirror itself (darpaṇa). The relationship between them reveals both the fundamental principles of prakāśa and vimarśa and the key to understanding śaiva yoga. The mirror itself is Śiva, or pure illumination (prakāśa). Possessing within itself the capacity for revelation (vimarśa), the mirror contains a variety of reflected images. In terms of epistemology, these images are the prameya. The fact of their reflection, which is the means of their being perceived—hence known—, is the pramāṇa, and the mirror is the metaphorical knower (pramātṛ).

What is the relationship between the three? The answer to this question is more nuanced than it first appears. On a surface level, the reflected images appear distinct both from one another and from the mirror. In other words, according to conventional reality, one would consider the knower, the known, and means of knowing all distinct. However, as Abhinavagupta states, conventional understanding has no basis at the level of the Supreme Truth (PS 27). For this reason, the true relation of the three is stated to be one of inseparability (avibhāgin). Developing this theme of inseparability, Abhinavagupta goes on to equate the mirror with the absolute consciousness of highest Bhairava (vimalatama-parama-bhairava-bodham) who, both in terms of the metaphor and Trika cosmology, is the supreme knower (pramātṛ).

Now, what is the relationship between Bhairava and the universe? Abhinavagupta answers that despite the appearance of being mutually apportioned and distinct (vibhaktamābhāti), the relationship of Bhairava (pramātṛ) to the universe (prameya) and its reflection (pramāṇa)—like that of the mirror to its objects—is one void of distinctions (vibhāgaśūnyam). In other words, from the highest perspective, the trinity of epistemological and cosmological principles is a unity. Like the various forms of candy, which are but modifications of syrup, these three are but modifications of the Supreme Self (PS 26).

BONDAGE AND EMBODIMENT

The purpose (prayojana) for writing the PS is clearly established by Abhinavagupta in the third verse where he explains that his treatise (śāstra) is written in response to the pleas of a disciple caught in the "wheel of suffering that begins with dwelling in the womb and ends with death." Living in a universe that is inherently devoid of distinctions, being the self-manifestation of omnipotent consciousness, how then can there be an occasion for bondage? Abhinavagupta answers that this condition paradoxically arises as the result of the absolute's power of freedom (svātantrya-śakti). In other words, it is precisely because Paramaśiva is unbounded that He/She/It can assume the condition of bondage.

In terms of cosmic emanation, the cause of bondage arises at the level of the sixth tattva (māyā-tattva). At this level, Consciousness is said to assume the capacity of self-limitation (saṅkocana) which makes possible the appearance of duality and multiplicity. The māyā-tattva is itself composed of five sheaths (kañcukas) which limit the functioning of the five powers (pañca-śakti) of the Pure Order (śuddhādhvan) (PS 16). What results is the formation of the 'three taints' (trimala) which encase consciousness and transform it into a limited soul (PS 24).

This limited soul is the twelfth principle, the puruṣa-tattva. In verse sixteen Abhinavagupta refers to the puruṣa as a "fettered beast" who, due to the influence of māyā, has contracted from the condition of pure consciousness (bodham) to that of a tainted soul (malinas). At this level of the cosmic hierarchy, the Supreme Self, "due to its associations with the darkness of ignorance comes to perceive Itself as a wondrous diversity of subjects and objects." In other words, at the level of the puruṣa-tattva, there is a perceived split between self and other.

And at this stage there unfolds the twenty-four material categories of the classical Sāmkhya schema, beginning with prakṛti and progressing through the threefold psychic instrument (antahkāraṇa)—intellect (buddhi), ego (ahaṃkāra), and mind (manas)—, the organs of knowledge (buddhīndriya)—the ear (śrotra), the skin (tvak) the eye (cakṣus), the tongue (rasana), and the nose (ghrāna)—, the organs of action (karmendrīya)—speech (vāk), hands (pāni), feet (pāda), anus (payu), generative organ (upastha)—, the five subtle elements (tanmātra)—sound (śabda), touch (sparśa), color (mahas), taste (rasa) and smell (gandha)—, and, lastly, the physical sphere (sthūla-viṣayas) constituted by the five material elements (pañca-mahābhūtas)—sky (nabhas), wind (pavanas), fire (tejas), water (salila) and earth (pṛthvī) (PS 19-22).

The result of this process is that consciousness takes the form of a body (dehabhāva) (PS 23). In other words, according to the Trika, the final result of cosmic manifestation is embodiment. Hence, in this system, the body is both the product of creation and the receptacle of manifestation itself. Hence, the body contains within itself each of the thirty-six tattvas, and for this reason reflects the structure of the universe.[28] Consequently, the tattva schema is to be understood simultaneously as a map of the universe and of the human being--the two, in Tantric circles, being inseparable.[29]

As we will see below in my translation of Abhinavagupta's Paramārthasāra, in the practices of Trika sādhana the homologies between the universe and the body play out on several levels. According to Abhinavagupta's Śaivism, the body itself is not the cause of bondage. It is the final product of Paramaśiva's expansive power (unmeṣa-śakti). The true source of bondage is the malas which encase the finite soul (puruṣa, anu) in ignorance (avidyā) and create the experience of cyclical existence or saṃsāra. In such a condition, the limited soul, "like a spider with its web, spins for itself a variegated pattern by means of association with the body, breath, perception, thought, knowledge and the expanse of ether" (PS 32). In other words, while governed by the malas, the tattvas are an apparent source of bondage:

> When the multitude of tattvas are unagitated the Lord likewise appears still; likewise is He excited when they are so and bewildered when there is the state of bewilderment. However, in actuality, from the [perspective of the] Highest Truth He is not these conditions (PS 38).

The last line of the above verse is the key to understanding the Trika conception of bondage. It suggests, that ultimately, the entire notion of limitation is a cosmic joke, or play (līla). In the final analysis, Śiva is never bound, and in the moment of this re-cognition (pratyabhijñā), the sādhaka is awakened. At that point, the body becomes the temple of god (devagṛha) and delusion is shattered. Then, there is the condition of embodied liberation (jīvan-mukta). Hence, for the Trika śaivite, death is not a prerequisite for final release (videha-mukta).[30] Knowledge alone is necessary, for in the moment of awakening there is the understanding that Śiva alone unfolds the drama of bondage and release:

> He (the sādhaka) would free his own Self from bondage by means of the splendor of the greatness of self-knowledge. Thus, the Supreme Śiva unfolds the drama consisting of the wonders of bondage and liberation. (PS 33).

Paradoxically, this moment of re-cognition, this condition of knowing, often requires ritual practices (karman) to produce a condition of purification in which pure knowledge can arise. Consequently, the Trika sādhana system enjoins the combining of knowledge and action (jñāna-karma-samuccaya-vāda) as a means to freedom. In defense of this position, the Trika defines the absolute as constituted of a triadic power: will (icchā), knowledge (jñāna), and action (kriyā).

THE DIMENSIONS OF SĀDHANA

Trika theology describes this world as the self-manifestation of an omnipotent and dynamic consciousness. Logically, then, as we have seen, bondage is an impossibility, an illusion or mirage. Yet, there is the experience of suffering and consequently the need for a method (upāya) which brings about the dissolving of the mirage of ignorance. Herein, enters the essential features of Tantra—an elaborate technology of self-release based on a science of the body (dehavidyā). Within this system, abstract philosophical inquiry as found in the initial sections of the PS, forms part of the means to liberating knowledge (jñāna).[31] In other words, descriptions of the tattvas, the nature of the cosmogonic process, etc., serve not only to satisfy intellectual curiosities, but to finally produce an existential awakening and release. And this condition, the Tantras declare, requires "active ritual participation leading the aspirant to experiential knowledge (bhāvanajñāna)."[32]

Hence, for the initiated sādhaka, the PS is to be understood not as representing a philosophical stance to be agreed or disagreed with, but as a guideline for acquiring experiential knowledge that was disseminated within guarded circles of initiation and secrecy. Initiation was understood to be the sine qua non of proper textual exegesis, since it was only through this consecration that the malas could be removed. Through dīkṣā came the descent of power (śaktipāta) which made possible the revelation of the Self. "As the face is revealed in a spotless mirror," writes Abhinavagupta, "so This (Self) is revealed as light in the mind purified by śaktipāta (PS 9)."

This initiatory transmission was believed to awaken the aspirant's own dormant power, the kuṇḍalinī-śakti, which, when awakened arose through the central current (suṣumnā-nādi), purifying the latent tendencies (saṃskāras) and uniting the sādhaka's limited identity with that of cosmic identity situated at the crown of the head in the sahāsrāra. This path of internal ascension was called the upward yoga (udmukhyayoga) and was considered the distinctive feature of the Kaula school. In mythological terms, the upward path was the upward face of Śiva's five-faced icon (pañca-mukha-liṅga). This path removed all ignorance and established the sādhaka in the highest state of empowerment through the shredding of the malas:

> As the chaff surrounding the rice grain seems inseparable and yet is removed, so this (=the trimala) is shed by the upward yoga of the path of Śaivism (PS 18).

For one to enter the path of upward yoga, the essential prerequisite was the meeting with a qualified master (satguru). Contact with the teacher was understood to produce an alchemical process of transformation that liberated the disciple from all impurities (PS 17). Under rare circumstances, the empowerment received from the guru was so intense (atītivra-śaktipāta) it would produce instant enlightenment and the sādhaka would become "Śiva Himself" (PS 96). More often, however, liberation occurred gradually (karma-mukti) through "ascending the steps of the ladder [of tattvas]" (PS 97).

For a fuller understanding of this process of ascension one can benefit by turning to other texts, both primary and secondary. Quality work in the field of Kashmir Śaivism is now quite established, thanks particularly to scholars like Alexis Sanderson and his kula in the UK, the many American scholars working in the field (Lawrence, White, Skora, Muller-Ortega) as well as a host of Indian paṇḍitas, including Timalsina, Dyckowski, Mishra and others. In particular, one ought to read the Tantrālokā and Tantrasāra in which Abhinavagupta maps out the path to liberation as a fourfold means (upāyacatuśyayam) in which advanced ritual techniques are understood to correspond to the sādhaka's own internal state of cognitive development.

Towards this end one can also reflect on the following translation of the Parmārthasāra, in which I have attempted to capture both the literal power and poetic sweetness of Abhinavagupta's reflections on the quintessence (sāra) of the highest (parama) purpose (artha). While this brief text does not provide the detail of other works by Abhinavagupta, it nonetheless distills the essence of his spiritual brilliance. Practiced in its own context, the Parmārthasāra is chanted as litany to a ritualized and meditative visualization practice through which the initiate seeks to re-cognize her own identity as the highest purpose (for the objectivized "goal" is inevitably one's own subjective "self" in Trika-Kaulism). In this state of refined self-as-awareness, purpose (artha), aim (artha) and truth (artha) are all grounded in that Supreme Being who is one's own self-of-self. With this awareness firmly established, the sādhaka realizes that, indeed, "I alone am the Deity I worship" (śivo'ham).

The Essence of the Supreme Truth
Paramārthasāra
by
Abhinavagupta

Om, om. Salutations to Śiva, the ever-favorable, inherently benevolent, Supreme Auspiciousness

Om om namah śivāya, sadāśivāya, saśivāya paramaśivāya//

1. To you, the supreme standing beyond the abyss (=Māyā), the one without beginning, dwelling manifoldly in secret places (= 'the heart'), the receptacle of all, abiding in all that moves and moves not—to you, Śambhu, I come seeking refuge.

Paraṃ parasthaṃ gahanād anādim ekaṃ niviṣṭhaṃ bahudhā guhāsu /

sarvālayaṃ sarvacarācarasthaṃ tvām eva śambhuṃ śaraṇam prapadye //1

2. A disciple, wandering dazed in the wheel of suffering which begins with dwelling in the womb and ends with death, beseeched the lord, the substratum, regarding liberation.

Garbhādhivāsapūrvakamaraṇāntaduḥkhacakra-vibhrāntaḥ /

ādhāraṃ bhagavantaṃ śiṣyaḥ papraccha paramārtham //2

3. The Guru answered him with the Verses on the Foundation, the essence of which Abhinavagupta here narrates in accord with [his] yogic intuition of Śaiva doctrine.

Ādhārakārikābhiḥ taṃ gurur abhibhāṣate sma tatsāraṃ /

kathayatya abhinavaguptaḥ śivaśāsanadṛṣṭiyogena //3

4. This sphere, which is distributed in a quaternary as Śakti, Māyā, Prakṛti, and Pṛthvī, is brought forth by the Lord through the bestowal of his innate power and might.

Nijaśaktivaibhavabharād aṇḍacatuṣṭayam idaṃ vibhāgena /

Śaktirmāyā prakṛtiḥ pṛthvī ceti prabhāvitaṃ prabhuṇā //4

5. This universe with its succession of manifold bodies, organs and worlds is within these spheres; and therein is the enjoyer, the embodied Śiva who assumes the condition of animals.

Tatrāntar viśvam idaṃ vicitratanukaraṇabhuvanasaṃtānam /

bhoktā ca tatra dehī śiva eva gṛhītapaśubhāvaḥ //5

6. As the clear crystal assumes a multi-colored form, so the Lord assumes the form of gods, men, animals and plant-life.

Nānāvidhavarṇānām rūpam dhatte yathāmalaḥ sphaṭhikaḥ /

suramānuṣapaśupādaparūpatvaṃ tadvad īśo' pi //6

7. As the orb of the moon [appears] to move in disturbed water, and likewise [appears] motionless in still water, so this Self, the great Lord [is reflected] in the unceasing flow of bodies, organs and worlds.

Gacchati gacchati jala iva himakarabimbaṃ sthite sthitiṃ yāti /

tanukaraṇabhuvanavarge tathāyamātmā maheśānaḥ //7

8. Just as Rāhu, though invisible, becomes manifest when standing in the orb of the moon, so this all-pervasive [hence, invisible] Self [is revealed] in the mirror of intelligence through engagement in the sense-spheres.

Rāhur adṛśyo' pi yathā śaśibimbasthaḥ prakāśate tadvat /

sarvagato' pyayam ātmā viṣayāśrayaṇena dhīmakure //8

9. As the face is revealed in a spotless mirror so This (Self) is revealed as light in the mind (lit., 'Intelligent Principle') purified by śaktipāta.

Ādarśe malarahite yadvad vadana ṁ vibhāti tadvad ayam /

śivaśaktipātavimale dhītattve bhāti bhārūpaḥ //9

10-11. The universe consisting of the thirty-six tattvas shines in that Supreme Principle which is the form of light, completely full, reposed in its own self, of great bliss, perfect by means of will, consciousness and instrumentality, replete with endless power, free of delusion, pure, peaceful and free from creation and dissolution.

Bhārūpaṁ paripūrṇaṁ svātmani viśrāntito mahānandam /

icchāsaṁvitkaraṇair nirbharitam anantaśaktipariūrṇam //10

Sarvavikalpavihīnaṁ śuddhaṁ śāntaṁ layodayavihīnam /

yat paratattvaṁ tasmin vibhāti ṣaṭhṭhriṁśadātma jagat // 11

12-13. Just as the images of a town, a village, and other objects reflected in a mirror are inseparable from it and yet appear distinct both from one other and from the mirror, in the same way, arising from the absolute consciousness of Para Bhairava, this universe, though inherently void of divisions, nevertheless appears internally apportioned and distinct [from Para Bhairava].

Darpaṇabimbe yadvan nagaragrāmādi citram avibhāgi /

bhāti vibhāgenaiva ca parasparaṁ darpaṇād api ca // 12

Vimalatamaparamabhairavabodhāt tadvad vibhāgaśūnyamapi /

anyonyaṁ ca tato' pi ca vibhaktamābhāti jagad etat // 13

14. By means of the distinct nature of the five powers, He (Bhairava) reveals the condition of śiva, śakti, and Sadāśiva as well as the principle tattva composed of lordship and knowledge.

śivaśaktisadāśivatām īśvaravidyāmayīṁ ca tattvadaśām /

śaktīnāṁ pañcānāṁ vibhaktabhāvena bhāsayati // 14

15. This veil of śiva is the supreme spontaneity, capable of all accomplishments; it is Māyā, the divine power of the Great Lord.

Paramaṁ yat svātantryaṁ durghaṭhasaṁpādanaṁ maheśya /

devī māyāśaktiḥ svātmāvaraṇaṁ śivasyaitat // 15

16. Consciousness, from the influence of possession by Māyā, becomes the tainted soul, the fettered beast. This union is from the powers of time, restriction, and determination under the influence of passion and ignorance.

Māyāparigrahavaśād bodho malinaḥ pumān paśur bhavati /

kālakalāniyatibalād rāgāvidyāvaśena saṁbaddhaḥ // 16

17. Now (kāla) this (niyati) is something (kalā) I know (vidyā) completely (rāga): this hexad of cloaks which includes Māyā is known as the interior organ of the finite soul.

Adhunaiva kiṃcid evedam eva sarvātmanaiva jānāmi /

māyāsahitaṃ kañcukaṣaṭhkam aṇor antarañgam idam uktam // 17

18. As the chaff surrounding the rice grain seems inseparable and yet is removed, so this (kañcuka) is shed by the upward yoga (=the Kaula Mārga) of śiva's Path.

Kambukam iva taṇḍulakaṇaviniviṣṭhaṃ bhinnam apy abhidā /

bhajate tat tu viśuddhiṃ śivamārgaunmukhyayogena // 18

19. Nature, constituted by pleasure, pain and delusion, is the inner organ consisting of resolution, will and conceit which correspond respectively to intellect, mind and ego.

Sukhaduḥkhamohamātraṃ niścayasañkalpanābhimānāś ca /

prakṛtir athāntaḥkaraṇaṃ buddhimanohañkṛtikramaśaḥ // 19

20. The ear, skin, eye, tongue and nose are the organs of the intellect in respect to sound (and the other corresponding elements); and speech, hands, feet, anus and the generative organ are the organs of action.

śrotraṃ tvagakṣirasanāghrāṇaṃ buddhīndriyāṇi śabdādau /

vākpāṇipādapāyupasthaṃ karmendriyāṇi punaḥ // 20

21. The sphere grasped by these (=sense organs), which would be subtle and without division, consist in the five subtle elements—sound, touch, color, taste, and smell.

Eṣām grāhyo viṣayaḥ sūkṣmaḥ pravibhāgavarjito yaḥ syāt /

tanmātrapañcakaṃ tac chabdaḥ sparśo maho raso gandhaḥ // 21

22. From the mixture of these comes the gross sphere which consists in the pañca mahābhūtas (five elements)—sky, wind, fire, water, and earth.

Etatsaṃsargavaśāt sthūlo viṣayas tu bhūtapañcakatām /

abhyeti nabhaḥ pavanas tejaḥ salilaṃ ca pṛthvī ca // 22

23. As the chaff covers the rice-grain so this creation beginning with Prakṛti and ending with Pṛthvī adorns consciousness in embodiment.

Tuṣa iva taṇḍulakaṇikām āvṛṇute prakṛtipūrvakaḥ sargaḥ /

pṛthvīparyanto 'yam caitanyaṃ dehabhāvena // 23

24. Regarding defilement, there is a supreme veil (āṇava mala), a subtle veil (māyīya mala) consisting of the five kañcukas and māyā, and a gross, external veil (karma mala) in the form of the body. In this way the Self is enveloped by a triadic sheath.

param āvaraṃ mala iha sūkṣmaṃ māyādikañcukaṃ sthūlaṃ /

bāhyaṃ vigraharūpaṃ kośatrayaveṣṭhito hy ātmā // 24

25. From Its association with the darkness of ignorance, the Self, though its own self-nature is non-dual, comes to perceive itself as a wondrous diversity of subjects and objects.

Ajñānatimirayogād ekam api svasvabhāvam ātmānam /

grāhyagrāhakanānāvaicitryeṇāvabudhyeta // 25

26. As syrup, molasses, candied sugar, sugar balls and hard candy, etc. are all juice of the sugar cane, so the plurality of conditions are all of śambhu, the Supreme Self.

Rasaphāṇitaśarkarikāguḍakhaṇḍādyā yathekṣurasa eva /

tadvad avasthābhedāḥ sarve paramātmanaḥ śambhoḥ // 26

27.   The various philosophies—Yogācāra, Vedānta, Sāṃkhya-Yoga, Upaniṣads, Nyāya, Smārta—are limited to conventional reality. They have no existence in the Highest Truth.

Vijñānāntararyāmiprāṇavirāḍdehajātipiṇḍāntāḥ /

vyavahāramātram etat paramārthena tu na santy eva // 27

28. There is no snake in the rope, yet [this false perception] creates a deathly fear. This great power of delusion cannot be easily asundered.

Rajjvāṃ nāsti bhujaṅgas trāsaṃ kurute ca mṛtyuparyantam /

bhrānter mahatī śaktirna vivektuṃ śakyate nāma // 28

29. In the same way, merit, demerit, heaven, hell, birth, death, happiness, pain, caste and such things as the stages of life all arise in the Self due to the power of delusion.

Tadvad dharmādharmasvarnirayotpattimaraṇasukhaduḥkham /

varṇāśramādi cātmanyasad api vibhramabalād bhavati // 29

30. It is blindness when there is the erroneous identification of "not-Self" regarding states of being [which ought to be recognized as] indistinct from the Self due to their being pervaded by light.

Etat tad andhakāraṃ yad bhāveṣu prakāśamānatayā /

ātmānatirikteṣv api bhavaty anātmābhimāno 'yam // 30

31. Moreover, it is a darkness from a darkness, a great boil upon a cyst when that which is not-Self, such as the body, breath, etc., is imagined as the Self.

Timirād api timiram idaṃ gaṇḍasyopari mahān ayaṃ sphoṭhaḥ /

yad anātmany api dehaprāṇādāv ātmamānitvam // 31

32. Like a spider with its web, [the finite soul (aṇu)] spins for itself a variegated pattern by means of association with the body, breath, perception, thought, knowledge and the expanse of ether.

Dehaprāṇavimarśanadhījñānanabhaḥprapañcayogena /

ātmānaṃ veṣṭhayate citraṃ jālena jālakāra iva // 32

33. He would free his own Self from bondage by means of the method of the splendor of the greatness of self-knowledge. Thus, the supreme śiva unfolds the drama consisting of the wonders of bondage and liberation.

Svajñānavibhavabhāsanayogenodveṣṭhayen nijātmānam /

iti bandhamokṣacitrām krīdāṃ pratanoti paramaśivaḥ // 33

34. It is in Him, the fourth abode, that creation, maintenance, and destruction [as well as] waking, dreaming, and deep sleep all appear. However, He [the Self] does not reveal Himself while veiled by these [diverse conditions].

sṛṣṭhisthitisaṃhārā jāgratsvapnau suṣuptam iti tasmin /

bhānti turīye dhāmani tathāpi tair āvṛtaṃ bhāti // 34

35. Due to differentiation the waking is the universe; due to the majesty of light, dreaming is illumination; due to the Knowledge Mass, deep sleep is understanding; beyond that is the fourth.

Jāgrad viśvam bhedāt svapnas tejaḥ prakāśamāhātmyat /

prājñaḥ svapnāvasthā jñānaghanatvāt tataḥ paraṃ turyam // 35

36. As the surface of the sky is unsoiled by clouds, smoke, and dust, so the Supreme Self is untouched by the modifications of Māyā.

Jaladharadhūmarajobhir malinīkriyate yathā na gaganatalam /

tadvan māyāvikṛtibhir aparāmṛṣṭhaḥ paraḥ puruṣaḥ // 36

37. When the space in one jar is pervaded by dust the others are not thereby defiled. So it is with these souls which undergo differentiation by suffering and joy.

Ekasmin ghaṭhagagane rajasā vyāpte bhavanti nānyāni /

malināni tadvad ete jīvaḥ sukhaduḥkhabhedajuṣaḥ // 37

38. When the multitude of tattvas are unagitated the Lord likewise appears still; likewise is He exited when they are so and bewildered when there is the state of bewilderment. However, in actuality, from the [perspective of the] Highest Truth He is not these conditions (tathā).

śānte śānta ivāyaṃ hṛṣṭhe hṛṣṭho vimohavati mūḍhaḥ /

tattvagaṇe sati bhagavān na punaḥ paramārthataḥ sa tathā // 38

39. Having first removed the appearance of that form [the Self] in that which is not-Self, the Supreme Self then shatters the false perception of the not-Self in that which is the Self.

Yad anātmani tadrūpāvabhāsanaṃ tat purā nirākṛtya /

ātmany anātmarūpāṃ bhrāntiṃ vidalayati paramātma // 39

40. When this dyad of error is thus cut out at the roots, the supreme yogin, having accomplished his aim, is then no longer burdened by societal injunctions.

Itthaṃ vibhramayugalakasamūlavicchedane kṛtārthasya /

kartavyāntarakalanā jātu na parayogino bhavati // 40

41. Thus from the power of meditation on non-duality, this triad—earth, nature and illusion—having ascended from the form of objective knowledge, becomes the remnant of mere Being.

Pṛthivī prakṛtir māyā tritayam idaṃ vedyarūpatāpatitam /

advaitabhāvanabalād bhavati hi sanmātrapariśeṣam // 41

42. Just as through the rejection of duality a necklace, earring and bracelet are seen as gold, so when there is the abandoning of distinction everything appears as Truth alone.

Raśanākuṇḍalakaṭhakaṃ bhedatyāgena dṛśyate yathā hema /

tadvadbhedatyāge sanmātraṃ sarvam ābhāti // 42

43. This is the Supreme Brahman: pure, peaceful, innately non-dual, undifferentiated, complete, deathless Truth, abiding in that śakti whose form is sheer effulgence.

Tadbrahma paraṃ śuddhaṃ śāntaṃ abhedātmakaṃ samaṃ sakalam /

amṛtaṃ satyaṃ śaktau viśrāmyati bhāsvarūpāyām // 43

44. On the other hand, what is untouched by the Self-luminosity composed of will, knowledge, and action thus transits into the condition of a sky-lower (i.e., is merely imagination).

Iṣyata iti vedyata iti saṃpādyata iti ca bhāsvarūpeṇa /

aparāmṛṣṭhaṃ yadapi tu nabhaḥprasūnatvam abhyeti // 44

45. By means of the attainment of the trident of powers (para, parāpara, and apara) the totality is emitted by the god of gods named śiva within the Supreme Lord, the Supreme Truth.

śaktitriśūlaparigamayogena samastamapi parameśe /

śivanāmani paramārthe visṛjyate devadevena // 45

46. And on the other hand, through the successive emanation of the five powers outwards, this variegated triad of spheres is created through the appropriation of an external self.

Punarapi ca pañcaśaktiprasarañakrameṇa bahirapi tat /

aṇḍatrayam vicitraṃ sṛṣṭhaṃ bahirātmalābhena // 46

47. Thus turning the power wheel, the cosmic mechanism, by means of His play, the God, the I whose form is pure, is situated in the position of conductor of the great wheel of power.

Iti śakticakrayantraṃ krīyāyogena vāhayan devah /

ahameva śuddharūpaḥ śaktimahācakranāyakapadasthaḥ // 47

48. In me the universe appears like jars and other external objects in a clear mirror. From me everything emanates like the various dreams which arise from sleep.

Mayyeva bhāti viśvaṃ darpana iva nirmale ghaṭhādīnī /

mattaḥ prasarati sarvan svapnavicitratvam iva deham // 48

49. Like a body naturally constituted of hands, feet, etc., I assume the form of the universe. It is I alone who bursts forth in all beings as a luminous form.

Aham eva viśvarūpaḥ karacaraṇādisvabhāva iva dehaḥ /

sarvasmin aham eva sphurāmi bhāveṣu bhāsvarūpam iva // 49

50. Though without the organs of the body I am the seer, the hearer, the smeller; though a non-doer I alone fashion the numerous philosophical systems (siddhānta), revealed scriptures (Āgama), and systems of logic (tarka).

Draṣṭhā śrotā ghrātā dehenriyavarjito' py akartāpi /

siddhāntāgamatarkāṃścitrānahameva racayāmi // 50

51. When the false conception of duality has thus fallen away and the seductress Māyā has been transcended, one becomes absorbed in Brahman like water in water, milk in milk.

Itthaṃ dvaitavikalpe galite pravilañghya mohinīṃ māyā /

salile salilaṃ kṣire kṣiamiva brahmaṇi layī syāt // 51

52. In this way, through meditation on the aggregate of tattvas he (the yogin) obtains the nature of śiva. What sorrow, what delusion can there be for one who perceives all this as Brahman?

Itthaṃ tattvasamūhe bhāvanayā śivamayatattvamabhīyate /

kaḥ śokaḥ ko mohaḥ sarvaṃ brahmāvalokayataḥ // 52

53. The fruit of action, whether pleasant or unpleasant, is therefore from the confluence of false knowledge. Indeed, the defilement of company is as dangerous as the meeting of a non-thief and a thief.

Karmaphalaṃ śubhamaśubhaṃ mithyājñānena saṃgamādeva /

viṣamo hi saṅgadoṣas taskarayogo' pyataskarasyeva // 53

54. The foolish people here who adhere to worldly concepts go to birth and death bound by the bolt of merit and demerit.

Lokavyavahārakṛtaṃ ya ihāvidyām upāsate mūdhaḥ /

te yānti janmamṛtyū dharmādharmārgalābaddhāḥ // 54

55. But due to the power of the light of knowledge, the action constituted by merit and demerit accrued during the period of ignorance perishes like cotton acquired long ago [upon the descent of śiva's grace].

Ajñānakālanicitaṃ dharmādharmātmakaṃ tu karmapi /

cirasaṃcitamiva tūlaṃ naśyati vijñānadīptivaśāt // 55

56. When knowledge is obtained, then action no longer bears fruit; how then could there be rebirth for him whose association with the bond of rebirth is gone, he who is self luminous like śiva Sun.

Jñānaprāptau kṛtam api na phalāya tato' sya janma katham /

gatajanmabandhayogo bhāti śivārkaḥ svadīdhitibhiḥ // 56

57. As a seed separated from chaff, husk, and bran produces no sprout, so the Self freed from āṇava, māyā, and karma [i.e., the three malas] produces no sprout of existence.

Tuṣakambukakiṃśārukamuktaṃ bījaṃ yathāṅkuraṃ kurute /

naiva tathāṇavamāyākarmavimukto bhavāṅkuraṃ hyātmā // 57

58. He who knows the Self does not fear anywhere, for everything is his innate form; and he does not grieve, since in the Highest Reality there is no destruction.

Ātmajño na kutaścana bibheti sarvaṃ hi tasy nijarūpam /

naiva ca śocati yasmāt paramārthe nāśitā nāsti // 58

59. From the accumulation of the jewels of supreme truth amassed in the treasury at the heart of the great mystery, [one realizes] "I alone am." In the state of Maheśvara, what misfortune is there, and of whom?

Atigūḍhahṛdayagañjanprarūḍhaparamārtharatnasaṃcayataḥ /

ahameveti maheśvarabhāve kā durgathiḥ kasya // 59

60. For the liberated one there is neither a dwelling place nor anywhere to go. Liberation is the revelation of the power of the Self through the breaking of the knot of ignorance.

Mokṣasya naiva kiṃcid dhāmāsti na cāpi gamanamanyatra /

ajñānagranthibhidā svaśaktyabhivyaktatā mokṣaḥ // 60

61. He who has pierced the knot of ignorance, who is freed from doubt, whose delusion has been cast away, whose merit and sin have been destroyed—that one is liberated even while still united to the body.

Bhinnājñānagranthir gatasaṃdehaḥ parākṛtabhrāntiḥ /

prakṣīṇapuṇyapāpa vigrahayoge' pyasau muktaḥ // 61

62. As the seed burnt by fire becomes incapable of germinating, so action burnt in the fire of knowledge does not produce rebirth.

Agnyabhidagdhaṃ bījaṃ yathā prarohāsamarthatāmeti /

jñānāgnidagdhamevaṃ karma n jnmapradaṃ bhavati // 62

63. Indeed, through the conception of a future body determined by [present] action [arising from] limited intelligence, the mind accordingly appears contracted at the [time of] death of this body.

Parimitabuddhitvena hi karmocitabhāvidehabhāvanayā /

sa¨ḥkucitā citiretaddehadhvaṃse tathā bhavati // 63

64-66. But if one were to know the Self as the very nature of śiva, as immaculate intelligence comprised of a knowing subject who transcends the universe, omnipresent, an unsetting arisen sun, the divine will devoid of space-time continuum, immovable, imperishable, the completely perfect Lord, sole agent in the formation of the dissolution and arising of the multitude of powers, the wise creator of the laws of creation, etc., how then could there be transmigration for such an omniscient one? Where would he roam, and why?

Yadi punar amalaṃ bodhaṃ sarvasamuttīrṇaboddhṛkartṛmayam /

vitatam anastamitoditabhārūpaṃ satyasaṃkalpam // 64

Dikkālakalanavikalaṃ dhruvam avyayam īśvaraṃ suparipūrṇaṃ /

bahutataraśaktivrātapralayodayaviracaṇaikakartāram // 65

Sṛṣṭyādividhisuvedhasamātmānaṃ śivamayaṃ vibudhyeta /

kathamiva saṃsārī syād vitatasya kutaḥ kva vā saraṇam // 66

67. Thus it can be proven that the work accomplished by the wise one does not bear fruit, for due to his firm conviction, "this is not mine, but His" there is no fructification [of actions] in this world.

Iti yuktibhir api siddhaṃ yat karma jñānino na tat saphalam /

na maedam api tu tasyeti dārdhyo na hi phalaṃ loke // 67

68. Awakened in this way by the energy of meditation, he sacrifices all limited cognitions into the flaming fire of Self and thereby attains the nature of light.

Itthaṃ sakalvikalpān pratibuddho bhāvanāsamīraṇataḥ /

ātmajyotiṣi dīpte juhvaj jyotirmayo bhavati // 68

69. Eating anything whatever, clothed with anything at all, peaceful, dwelling anywhere, He, the Self of all beings, is liberated.

Aśnan yad vā tad vā saṃvito yena kenacic chāntaḥ /

yatra kvacan nivāsi vimucyate sarvabhūtātmā // 69

70. Though he performs a hundred thousand horse sacrifices, or a hundred thousand killings of brāhmanas, the stainless one, knowing the highest truth, is touched neither by good nor evil deeds.

Hayamedhaśatasahasrāṇy api kurute brahmaghātalakṣāṇi /

paramārthavin na puṇyair na ca pāpaiḥ spṛśyate vimalaḥ // 70

71. Abandoning passion, pleasure, anger, desire, depression, fear, greed, and delusion, being without hymns of praise or ritual exclamations, he would wander about like a senseless being devoid of speech or thought.

Madaharṣakopamanmathaviṣādabhayalobhamohaparivarjī /

nisstotravaṣaṭhkāro jaḍa iva vicared avādamatiḥ // 71

72. This group beginning with passion, pleasure, etc., originates from the illusion of separation; pray, how may one who has [received] the awakening of the nondual Self be touched by this (i.e., the group of afflictions).

Madarṣaprabhṛtir ayaṃ vargaḥ prabhavati vibhedasaṃmohāt /

advaitātmavibodhas tena kathaṃ spṛyatāṃ nāma // 72

73. There is nothing whatsoever distinct from him to be worshipped or praised. Should he, the liberated one, beyond praise and ritual exclamation, rejoice in such things as religious hymns?

Stutyaṃ vā hotavyam nāsya vyatiriktam ast kiṃcana ca /

stotrādinā sa tuṣyed muktas tan nirnamaskṛtivaṣaṭhkaḥ // 73

74. His abode of worship is both his innate body, comprised of the thirty-six principles and filled with walls and windows as his form, as well as the external world consisting of such things as jars.

ṣaṭhriṃśattattvabhṛtaṃ vigraharacanāgavākṣapaaripūrṇam /

nijam anyad api śarīraṃ ghaṭhādi vā tasya devagṛham // 74

75. And therein he (the sādhaka) resides, worshipping with the stainless substance of self-reflection the auspicious Lord, the Supreme Self, Mahābhairava united with his consort.

Tatra ca paramātmamahābhairavaśivadevatāṃ svaśaktiyutām /

ātmāmarśanavimaladravyaiḥ paripūjyann āste // 75

76. When the pile of the great seed containing the duality of outer and inner thought-constructs is offered to the raging fire of consciousness, this becomes his fire oblation, enacted without exertion.

Bahirantaraparikalpanabhedamahābījanicayan arpayataḥ /

tasyātidīptasaṃvijjvalane yatnād vinā bhavati homaḥ // 76

77. [The sādhaka's] meditation is not subject to setting or declining since the Lord Himself projects the forms of diversity. Indeed, that divine form which patterns his (i.e., the sādhaka's) imagination is itself meditation.

Dhyānam anastamitam punar eṣa hi bhagavān vicitrarūpāṇi /

sṛjati tad eva dhyānaṃ saṅkalpanalikhitasatyarūpatvam // 77

78. When in an inner vision he turns the entire series of worlds, the construction of the sequence of principles, as well as the group of sense organs, this is declared his prayer (japa).

Bhuvanāvalīṃ samastāṃ tattvakramakalpanām athākṣagaṇam /

antarbodhe parivartayati ca yat so 'sya japa uditaḥ // 78

79-80. His religious duty, at once very difficult and yet easy to accomplish, is when he sees everything with a vision of unity and meditates on Consciousness residing in the cremation ground of the universe, bearing the emblem of the skeleton of the body. He drinks from the skull of limited cognition which resides in his own hand and which is filled with the nectar of the universal essence.

Sarvaṃ samayā dṛṣṭyā yat paśyati yacca saṃvidaṃ manute /

viśvaśmaśānaniratāṃ vigrahakhaṭhvāñgakalpanākalitām // 79

Viśvarasāsavapūrṇaṃ nijakaragaṃ vedyakhaṇḍakakapālam/

rasayati ca yattadetad vratamasya sudurlabhaṃ ca sulabhaṃ ca//80

81. Having thus obtained the highest reality, that which is called the Great Lord, free from birth and destruction,

and having accomplished all that is to be accomplished due to the revelation of the inner Seer, [the sādhaka] lives according to his own will.

Iti janmasāśahīnaṃ paramārthamaheśvarākhyam upalabhya /

upalabdhṛtāprakāśāt kṛtkṛtyas tiṣ§ati yatheṣṭham // 81

82. He who knows the universal, all-pervasive Self beyond distinctions, [the Self] thus proclaimed that is the incomparable highest bliss—that one attains identification with That.

Vyāpinam abhihitam itthaṃ sarvātmānaṃ vidhūtanānātvam /

nirupamaparamānandaṃ yo vetti sa tanmayo bhavati // 82

83. Whether he abandons his body in a pilgrimage place or in the dwelling of an untouchable, and even if he has lost his memory, he attains Self-isolation for he has destroyed sorrow and become liberated in the moment of knowing.

Tīrthe śvapacapṛhe vā naṣṭhamṛtirapi parityajan deham /

jñānasamakālamuktaḥ kavalyaṃ yāti hataśokaḥ // 83

84. Visiting holy places produces merit; meeting death in an untouchable's home leads to death; yet what affect can there be on him whose state is untouched by the stains of merit and demerit?

Puṇyāya tīrthasevā nirayāya śvapacasadananidhanagatiḥ /

puṇyāpuṇyakalañkasparśābhāve tu kiṃ tena // 84

85. The casting of a rice-grain which has been removed from its chaff and bran into another chaff does not maintain its original form.

Tuṣakambukasupṛthakkṛtataṇḍulakaṇṭuṣadalāntarakṣepaḥ

taṇḍulakaṇasyaa kurute na punas tadrūpatādātmyam // 85

86. In the same way, that Consciousness which is separated from Its veilings assumes a liberated nature free from their influence even while they continue to exist.

Tadvat kañcukapaṭhalīpṛthakkṛtā saṃvid atra saṃskārāt /

tiṣ§anty api muktātmā tatsparśavivarjitā bhavati // 86

87. A gem made translucent by a highly skilled artisan suffers discoloration from the box which encases it. However, when the cause of this contamination is removed, the jewel then reveals its own true nature.

Kuśalatamaśilpikalpitavimalˆbhāvaḥ samudgakopādheḥ /

malino 'pi maṇir upādher vicchede svacchaparamārthaḥ // 87

88. Likewise, Consciousness abiding in the purity of the sadguru's teachings is liberated from the limitations of the body and acquires the form of śiva, void of all impurities.

Evaṃ sadguruśāsanavimalasthiti vedanaṃ tanūpādheḥ /

muktam upādhyantaraśūunyam api samābhāti śivarūpam // 88

89. By means of unwavering faith in the authority of such things as religious texts, one is absorbed in that (i.e., the object of faith), and before [death] attains heaven, hell, or the human condition.

śāstrādiprāmāṇyād avicalitaśraddhayā hi tanmayatām /

prāptas sa eva pūrvaṃ svargaṃ narakaṃ manuṣyatvaṃ // 89

90. But that last moment which, producing a condition of merit or sin, becomes for the ignorant a cause of future birth, is not [for the wise one] a cause of destiny.

Antyaḥ kṣaṇas tu tasmin puṇyāṃ pāpāṃ ca vā sthitiṃ puṣyan /

mūdhānāṃ sahakāibhāvaṃ gacchati gatau tu na sa hetuḥ // 90

91. Those who realize their true nature to be the Self—even if they be cattle, snakes, or other beasts—are purified from past actions by this awakened knowledge and [now] go to that destiny (i.e., union with the Ātman).

Ye 'pi tadātmatvena vidhuḥ paśupakṣisarīsṛpādayaḥ svagatim /

te 'pi purātanasambodhasaṃskṛtās tāṃ gatiṃ yānti // 91

92. The person imprisoned within the body [creates his] own heaven and hell; and with the destruction of that (=the body) he acquires another body in accordance with his past tendencies (vāsanās).

Svargamayo nirayamayas tad ayaṃ dehāntarālagaḥ puruṣaḥ /

tadbhaṅge svaucityād dehāntarayogam abhyeti // 92

93. At the moment of awakening his own Self is instantaneously revealed and he thus becomes That. Even with the decay of the body such a being is not effected.

Evaṃ jñānāvasare svātmā sakṛd asya yādṛg avabhātaḥ /

tādṛśa eva tadāsau na dehapāte 'nyathā bhavati // 93

94-95. Paralysis of the organs, loss of memory, faltering of the breath, rumititis of the joints, a variety of diseases—all are the fruition of bodily processes. Indeed, how could these [ailments] not arise while one is identified with the body? Even so, the wise one, although still bound by illusion, does not fall away from the highest truth, his own Self, at the time of death.

Karaṇagaṇasampramoṣaḥ smṛtināśaḥ śvāsakalilatā chedaḥ /

marmasu rujāviśeṣāḥ śarīrasaṃskārajo bhogaḥ // 94

96. When one receives the path of the Supreme Truth from the mouth of the teacher, then by means of intense empowerment (atitīvraśaktipāta) all obstacles are removed and one becomes śiva Himself.

Paramārthamārgam enaṃ jhag iti yadā gurumukhāt samabhyeti /

atitīvraśaktipātāt tadaiva nirvighnam eva śivaḥ // 96

97. [Others] rise to the state of the Supreme Principle, the universally transcendent form, in a gradual way by ascending the steps of the ladder [of tattvas], and at the time of death are absorbed in śiva.

Sarvottīrṇaṃ rūpaṃ sopānapadakrameṇa saṃśrayataḥ /

paratattvarūḍhilābhe paryante śivamayībhāvaḥ // 97

98-99. But that sādhaka who, despite the ardent desire of his heart, has reached only the middle stages of sādhana and not that highest state, the Supreme Reality, will thus one day die [without attaining liberation]. Nevertheless, this type of aspirant, though having fallen from yoga (yoga-bhraṣṭas), is said in the sacred texts to become a lord of the worlds of wondrous enjoyments; and due to the power of his [previous] spiritual practice, destined to attain śiva in his next lifetime.

Tasya tu paramārthamayīṃ dhārām agatasya madhyaviśrānteḥ /

tatpadalābhotsukacetaso 'pi maraṇaṃ kadācit syāt // 98

Yogabhraṣṭaḥ śāstre 'sau citrabhogabhuvanapatiḥ /

viśrāntisthānavaśād bhūtvā janmāntare śivībhavati // 99

100. That one who, in spite of repeated efforts, does not attain union on this path of Supreme Truth nevertheless enjoys for a long time with contented mind the experiences of pleasure in the god worlds.

Paramārthamārgam enaṃ hy abhyasyāprāpya yogam api nāma /

suralokabhogabhāgī mukitamanā modate suciram // 100

101. As a universal monarch is honored by all people in his domain, so the one fallen from yoga is honored in the [celestial] worlds by all the gods.

Viṣayeṣu sārvabhaumaḥ sarvajanaiḥ pūjyate yathā rājā /

bhuvaneṣu sarvadevair yogabhraṣṭhas tathā pujyaḥ // 101

102. After a long time, he again obtains a human body. Practicing yoga, he then reaches the divine, immortal state from which he never again returns.

Mahatā kālena punar mānuṣyaṃ prāpya yogam abhyasya /

prāpnoti divyam amṛtaṃ yasmād āvartate na punaḥ // 102

103. Therefore, whosoever is devoted to this path of Truth attains the state of śiva. One should strive for the Supreme Reality by meditating in this manner (i.e., as prescribed in the Paramārthasāra).

Tasmāt sanmārge 'smin nirato yaḥ kaścid eti sa śivatvam /

iti matvā paramārthe yathā tathāpi prayatanīyam // 103

104. By meditating on that supreme Brahman which Abhinavagupta has revealed in this concise exposition, one instantaneously experiences possession by śiva within one's own heart.

Idam abhinavaguptoditasaṃkṣepaṃ dhyāyataḥ paraṃ brahma /

acirād eva śivatvaṃ nijahṛdayāveśam abhyeti // 104

105. This most secret essence of doctrine has been encapsulated in a hundred āryā-verses by me, Abhinavagupta, who am inspired by remembrance of śiva's feet.

Āryāśatena tad idaṃ saṃkṣiptaṃ śāstrasāram atigūḍham /

abhinavaguptena mayā śivacaraṇasmaraṇadīptena // 105

Thus the venerable great lord, the most eminent teacher, Abhinavagupta, has composed this comprehensive text called the Essence of Supreme Truth.

iti śrīmanmāheśvarācāryābhinavaguptaviracitaḥ

paramārthasārābhidho

granthaḥ samāptaḥ

ABBREVIATIONS

ĪP   Īśvarapratyabhi◇ā

ĪPv Īśvarapratyabhi◇āvimarśinī

PS   Paramārthasāra

PTlv Partrikśikālaghuvritti

PTV Parātrikāvivarana

PrHD Pratyabhijāhrdayam

ŚSū Śiva Sūtra

SpKā Spanda Kārikā

TĀ Tantrāloka

TSā Tantrasāra

VB Vijānabhairava

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NOTES

1. Published in the Journal of the Asiatic Society of Great Britain and Ireland, Parts 3-4, 1910, pp. 707-747.

2. Ibid., p. 707.

3. Barnett seems to dismiss this point and appears to miscalculate the chronological connection between the two texts by mistakenly placing Abhinavagutpa's text as historically senior. He writes: "Our Paramarthasara must be distinguished from another little work of the same name.... The latter consists of seventy-nine Ārya verses; a considerable number of these are borrowed directly from our Paramarthasara, and with them have been incorporated others, the whole work being painted over with Vaiṣṇava colours. Needless to say, it is valueless for the criticism of our book" [my italics].

4. Abhinavagupta, PS, v. 3.

5. Chatterji, p. 11f.

6. Barnett, p. 719.

7. Cf. Chandradhar Sharma, A Critical Survey of Indian Philosophy (Delhi: Motilala Banarsidass, 1976), p. 13. Sharma writes, "The word darshana means 'vision' and also 'the instrument of vision.' It stands for the direct, immediate and intuitve vision of Reality, the actual perception of Truth, and also includes the means which leads to this realization."

8. Cf. Swami Prabhavananda, The Spiritual Heritage of India (London: Allen and Unwin, 1962) p. 15. Prabhavananda writes: "Indian philosophy is not merely metaphysical speculation, but has its foundation in immediate perception."

9. TĀ, 4.77.

10. PTV, p. 161. Text quoted in Kamalakar Mishra's Kashmir Shaivism, The Central Philosophy of Tantrism (Massachusetts: Rudra Press, 1993), p. 5.

11. My exegesis here would be in line with Radhakrishnan's own sense of the primacy of experience. He writes, "[In Indian philosophy] the highest evidence is perception... The authoritativeness of the Śruti (scripture) is derived from the fact that it is but the expression of experience..." Indian Philosophy, 2 vols. (London: Allen and Unwin, 1971), p. 518.

12. Anantanand Rambachan, Accomplishing the Accomplished, The Vedas as a Source of Valid Knowledge in Śañkara (Honolulu: University of Hawaii Press, 1991), p.xi.

13. Pandey, K. C., Abhinavagupta, An Historical and Philosophical Study (Varanasi: Chowkhamba Sanskrit Series Office, 1963), p. 23.

14. PTV. Introduction, verse 5.

15. See Müller-Ortega's discussion in the Triadic Heart of Śiva, Kaula Tantricism of Abhinavagupta in the Non-dual Shaivism of Kashmir (Suny Press, Albany: New York, 1989), pps. 2, 57, 183.

16. Ibid., pp. 2-3.

17. See Frits Staal's important theoretical discussions in Exploring Mysticism (Berkeley: UC Press,1975), esp. Part III "How to Study Mysticism", pp. 123-199.

18. Op. cit., Mishra, p. 45.

19. See Dyczkowski (1987) for further discussion: The Doctrine of Vibration, An Analysis of the Doctrines and Practices of Kashmir Shaivism (Albany: SUNY Press) pp. 5-14.

20. Harvey Alper, "Śiva and the Ubiquity of Consciousness: the Spaciousness of an Artful Yogi." Journal of Indian Philosophy 7 (1979): note 1, p. 386.

21. See Gerald Larson's insightful discussion on the issue of "ism" in his review of Kashmir Shaivism by L. N. Sharma in Philosophy East and West 28 (April 1978): 236-239. There, Larson points out that the Śaivism of Kashmir should not be viewed as a single unit, but rather as a "network of esoteric tantric practices, a network of theories concerning language and aesthetics, a network of philosophies for attaining discrimination, and a plurality of 'paths' for attaining moksha." Despite the efforts of Larson and others to highlight the inaccuracies inherent in the use of the term "Kashmir Shaivism", it is still in vogue with many important scholars. Take, for example, the title of Kamalaka Mishra's recent book: Kashmir Shaivism, The Central Philosophy of Tantrism (1993).

22. See Dyczkowski's excellent synthesis of this "river" in The Doctrine of Vibration, An Analysis of the Doctrines and Practices of Kashmir Shaivism (Albany: SUNY Press, 1987), pp. 12-13.

23. TĀ 1.304a. Translated by Alexis Sanderson in "Mandala and Agamic Identity in the Trika of Kashmir" in Mantras et Diagrammes Rituels Dans L'Hinduisme (Paris: Editions du CNRS, 1986), p. 181.

24. PS 1.

25. TĀ 15.295c-328b. Translated by Sanderson (1986), op. cit., p. 187.

26. Svacchanda Tantram: Na śivam vidyate kvacit.

27. ŚSū 1.19: Lokānanda samadhi sukham.

28. The most detailed discussion of the correspondences between the universe and the body is found in Gavin Flood's recent work, Body and Cosmology in Kashmir Śaivism (San Francisco: Mellen University Press, 1993), esp. chapter 5 "Structures of the Body", pp. 159-190.

29. Cf. Dimock's discussion of microcosm/macrocosm correspondences in The Place of the Hidden Moon, Erotic Mysticism in the Vaishnava-Sahajiya Cult of Bengal (Chicago: University of Chicago Press, 1989), On page 137 Dimock writes: "The essence of Tantric thought is that man is a microcosm. He contains within himself all the elements of the universe; he is a part that contains all the elements of the whole."

30. See SenSharma's excellent analysis of jivan-mukta vs. videha-mukta in The Philosophy of Sadhana (Albany: SUNY Press, 1990), pp. 67-68.

31. See Brook's discussion of the interrelation of philosophy and practice in his Secret of the Three Cities, An Introduction to Hindu Śakta Tantrism (Chicago: University of Chicago Press, 1990), esp. 49.

32. Ibid, p. 49.

DURABLE SOLUTIONS TO THE PROTRACTED REFUGEE SITUATION: THE CASE OF ROHINGYAS IN BANGLADESH

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ABSTRACT

Refugee situation is characterized by suffering; suffering for the refugees, the host community as well as the asylum country. This causes constraints over financial and physical resources of the host country and immense effort of international community to deliver aid to the targeted population. The pain exacerbates when the refugee situations are prolonged and no long-lasting solution appears feasible. Alarmingly, people caught in this kind of protracted refugee situations are on the rise. The case of Rohingya refugees in Bangladesh is one of the most complex refugee situations in the world which has been continuing for more than three decades. The present paper is a study of the Rohingya refugees to examine the effectiveness of traditional durable solutions offered by the UN Refugee Agency (UNHCR). The paper posits that the ultimate solution of Rohingya crisis lies in the political good-will of stakeholder state parties. UN Security Council can play a vital role by applying the coercive diplomacy through Responsibility to Protect (R2P) measures against the state of origin of refugee problem viz. Myanmar.

Keywords: Bangladesh, integration, minorities, Myanmar, Northern Rakhine state, Protracted Refugee Situation, refugee, resettlement, Rohingya, Voluntary Repatriation.

INTRODUCTION

Generally, being a refugee in the international context is considered a temporary phenomenon. It is usually hoped that after situation becomes normal, refugees would return to their own country. But the global trends negate the perception. By the end of 2012, there were 10.5 million refugees worldwide and among them estimated 6.4 million were in protracted situations. UNHCR defines a protracted refugee situation as one in which 25,000 or more refugees of the same nationality have been in exile for five years or longer in a given asylum country. These 6.4 million protracted refugees were living in 25 host countries (UNHCR, 2013). Rohingya refugees living in Bangladesh created one of the major situations of protracted displacement.

Rohingyas are an ethnic, linguistic and religious minority group of Northern Rakhine State (NRS) of Myanmar. Myanmar government categorized them as illegal immigrants from Bangladesh and excluded them from citizenship and basic human rights. But the Rohingya people claim themselves residents of NRS (previously known as Arakan state) tracing their origin for more than a thousand year. Being persecuted by the government forces and extreme section of the majority Buddhist people, they took asylum in various countries including Bangladesh. They came to Bangladesh in two major influxes in 1978 and 1992(*Ahmed,* 2010; *Lewa*, 2009; *HRW,* 2000;*Grundy-war* and *Wong*, 1997; *Yegar,* 1972). Most of the refugees accepted by Bangladesh have been repatriated and the remaining about 30000 Rohingyas are living in two registered camps administered by the government and the UN Refugee Agency (UNHCR). However, a large number of Rohingya people, approximately 200000, are living in various unregistered camps and local villages without registration, any valid legal status or international assistance. The refugees in official camps are living in Bangladesh since 1992 making it one of the most complex protracted refugee situations.

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Initial warm reception by the local people did not last long over the passage of time, making life increasingly difficult for refugees. The situation of unregistered people are far worse as the government identify them as 'illegal foreigners' from Myanmar and they are always in fear of persecution, arrest and deportation (*Uddin*, 2012; *Ullah,* 2011; *Lewa,* 2010; UNHCR, 2007a and b).

International laws present three durable solutions to the refugee problem: *voluntary repatriation*, *local integration* and *resettlement*. In the case of Rohingyas in Bangladesh, repatriation done in 1978 and after 1992 was not voluntary in most of the cases (*Barnett,* 2000; *Abrar*, 1996; *Lambrecht,* 1995; MSF, 1994). Repatriation process was stopped since 2005 and the UNHCR acknowledged that it is not a viable solution for Rohingya refugees (UNHCR, 2007c). Moreover there is   no discussion about the repatriation of the far larger unregistered people. Bangladesh is not in a position to allow local integration given her dense population and constraints over limited resources. Resettlement process was also stopped in 2010 after a small number of refugees resettled to several third countries. Bangladesh government stopped it on the ground that it would act as a pull factor.

Persecuted in both home and host countries and losing hope of durable solutions, Rohingya people have become increasingly desperate to seek a safe future. Thousands of Rohingyas are attempting to reach Malaysia, Thailand and Australia by perilous sea journey (*Human Rights Watch*, 2009). Bangladesh government and media routinely accuse that many Rohingyas are illegally possessing Bangladeshi passports to go abroad (*The Daily Star,* 12 August 2012). After the outbreak of fresh violence in Myanmar since June 2012, more Rohingya people fled from homeland but this time Bangladesh did not allow them to take shelter leaving many to die in the sea. Policies of the regional governments including Australia, Thailand and Malaysia got more anti-trafficking discouraging the desperate Rohingya people to seek a safe shelter in their shores.

DEFINING THE PROTRACTED DISPLACEMENT

UNHCR Standing Committee defines protracted refugee situation in following words:

'One in which refugees find themselves in a long-lasting and intractable state of limbo. Their lives may not be at risk, but their basic rights and essential economic, social and psychological needs remain unfulfilled after years in exile. A refugee in this situation is often unable to break free from enforced reliance on external assistance'. In identifying the major protracted refugee situations in the world, UNHCR uses the 'crude measure of refugee populations of 25, 000 persons or more who have been in exile for five or more years in developing countries' (UNHCR, 2004).

UNHCR definition presents the popular image of protracted refugee situations as involving static, unchanging and passive populations and groups of refugees that are 'warehoused' in identified camps. In view of UNHCR's humanitarian mandate, and given the prevalence of encampment policies in the developing world, it should not be surprising that such situations have been the focus of UNHCR's engagement in the issue of protracted refugee situations. The UNHCR definition does not, however, fully encompass the realities of such situations. Far from being passive, recent cases illustrate how refugee populations have been engaged in identifying their own solutions, either through political and military activities in their countries of origin or through seeking means for onward migration to the West. A more helpful definition of protracted refugee situations would include not only the humanitarian elements proposed by the UNHCR, but also a wider understanding of the political and strategic aspects of long term refugee problems. Secondly, a definition should reflect the fact that protracted refugee situations also include chronic, unresolved and recurring refugee problems, not only static refugee populations. Thirdly, an effective definition must recognize that countries of origin, host countries and the international donor community are all concerned in long-term refugee situations (*Loescher* and *Milner*, 2005). In a protracted refugee situation, refugees are sequestered in refugee camps without rights to move and work; their lives remain on hold and stagnate in a state of limbo for a long period. The refugees have few if any chances for employment and very limited opportunities to engage in commerce or trade. Though the risks to their lives may be radically reduced in comparison to the situation from which they fled, their lives remain physically and psychologically insecure, oftentimes more insecure than they would be if they returned home.

The basic characteristic of a protracted refugee situation is long-term confinement in a refugee camp or settlement – at least five years – from which the refugee is not free to leave. Refugees in such situations live not knowing what the future will bring. Hopelessness and despair eat at their self-worth at the same time as the endlessness of the situation weakens the willingness of donor states to provide adequate supplies and services to meet the basic needs of the refugees. Living often in remote, desolate, and dangerous border areas, the refugees are subject to violence at the hands of locals

and, in some cases, uncontrolled armed militias (*Chen* 2004; *Smith* 2004; quoted in *Adelman*, 2008). Given the remote locations of many camps, the consequences of living for long periods in a confined area in this state of unending dependency in closed camps, or suffering economic exploitation in open camps, there are significant debilitating effects. The list of the consequences of prolonged encampment is long, and includes material deprivation, psychosocial problems, violence, sexual exploitation, exploitative employment and resort to negative coping mechanisms. UNHCR has pointed out that protracted refugee situations perpetuate poverty and 'underdevelopment' and 'can serve as incubators for future problems. Festering crises can nurture instability and conflict.' The consequences also include sexual exploitation, illegal secondary migration, tensions between the refugees and locals, and sometimes unaccountable and even exploitive camp administrations (*Smith,* 2004).

According to the *World Refugee Survey (2004)* special issue on refugee '*warehousing'*, of the 11.9 million refugees worldwide in 2003, there were more than seven million refugees confined to refugee camps, segregated settlements or otherwise deprived of their rights for ten years or more. Using somewhat different criteria – five years' duration rather than ten – for the end of 2003, UNHCR provided a figure of 6.2 million refugees in 38 different mostly African countries who have lived in an ongoing refugee crisis for more than five years. In fact, the average duration of refugee crises has increased from 9 to 17 years between 1993 and 2003 (UNHCR 2004). In six of these 38 countries, refugees were fully integrated economically, although the refugee situation was still extant; the refugees themselves in those six countries were not in a protracted refugee situation.

According to Jeff Crisp's definition, a protracted refugee was someone in exile for at least five years and *no durable solution was in sight through resettlement, local integration or repatriation* (*Crisp ,* 2002; 2003). In 2003, Crisp modified his definition to *an absence of a durable solution* and offered an explanation. Protracted refugeehood was depicted as 'a long term refugee situation that has become a care and maintenance program with no apparent durable solution in sight, not necessarily because one is lacking, but because refugees have become marginal to major power interests'. Realpolitik, then, was offered as the explanation for the indifference (*Adelman,* 2008).

The key UNHCR (2004) document on Protracted Refugee Situations reports some general consequences of protracted displacement which are summarized below:

a.   The consequences of having so many human beings in a static state include wasted lives, squandered resources and increased threats to security.

b.   Camps save lives in the emergency phase, but, as the years go by, they progressively waste these same lives. A refugee may be able to receive assistance, but is prevented from enjoying those rights – for example, to freedom of movement, employment, and in some cases, education – that would enable him or her to become a productive member of a society.

c.   Protracted refugee situations also waste lives by perpetuating poverty. The World Bank notes three dimensions of poverty: lack of income and assets; voicelessness and powerlessness in the institutions of State and society; and vulnerability to adverse shocks, linked to an inability to cope with them. Very often, being a refugee involves all three dimensions, ensuring that refugees are not only without national protection, but also desperately poor. Poverty can lead refugees, as well as others, to resort to a range of negative survival tactics, such as child labour, the degradation of the environment or prostitution.

d.   The prolongation of refugees' dependence on external assistance also squanders precious resources of host countries, donors and refugees. Spending on long-term situations is often characterized by what has been termed the *'plastic sheeting syndrome.'* Limited funds and waning donor commitment lead to stop-gap solutions, such as the provision of plastic sheeting instead of more durable shelter materials. Spending on short-term fixes, however, yields only fictitious savings. Spending on care and maintenance, rather than on solutions, while often necessary, is a recurring expense, and not an investment in the future. It can only ensure that such situations are perpetuated, not solved.

e.   Another consequence of protracted refugee situations is that they can serve as incubators for future problems. Festering crises can nurture instability and conflict. Large, disaffected and alienated populations relying on subsistence-level handouts are prime targets for recruitment into armed groups. And the frustration of being a refugee can lead persons to commit dramatic actions that draw attention to a cause.

DURABLE SOLUTIONS IN INTERNATIONAL LAW AND PRACTICE

A durable solution for refugees is one that ends the cycle of displacement by resolving their plight so that they can lead normal lives. Traditionally, three durable solutions have been practiced to end refugee crisis: voluntary repatriation, local integration and resettlement.

The durable solutions have been discussed below following the UNHCR (2005) Report published *An Introduction to International Protection* and other key literatures.

Voluntary Repatriation

Repatriation means the way in which the refugees can return to their country of origin in safety and dignity. But the return must be voluntary. The *1951 Convention* does not explicitly address the issue of voluntary repatriation, although the cessation clauses are indirectly related:

i. Article 1C (4) of the *1951 Convention* stipulates that refugee status ceases if a refugee voluntarily re-establishes him- or herself in the country or origin;

ii. In relation to the 'ceased circumstances' cessation clauses in Articles 1C (5) and 1C (6), the successful completion of a voluntary repatriation programme can indicate that the circumstances that initially caused flight no longer exist.

Therefore, voluntary repatriation ultimately leads to the cessation of refugee status, whether on an individual or group basis. Drawing on the above legal framework, UNHCR considers that the core components of voluntary repatriation are return in safety and with dignity. This involves the return in and to the conditions of physical, legal, and material safety, with full restoration of national protection as the end result.

Aspects of *physical safety* include:

i. The overall security situation and assurances from the authorities about the safety of returnees;

ii. Specific safety issues, such as the presence of mines and unexploded ordnance.

Aspects of *legal safety* include:

i. The adoption and implementation of amnesty laws to protect returnees from discrimination or punishment on the sole ground of having fled the country;

ii. Legislation to ensure a returnee's citizenship status, plus access to documentation related to personal status;

iii. Measures in place to ensure recovery of property or, if this is not possible, entitlement to adequate compensation.

Aspects of *material safety* include:

i. Access to means of survival and basic services, such as drinking water, health services, and education;

ii. Income-generating opportunities.

Often the basic requirements for return – safety and the restoration of national protection – are not in place. Without these conditions, return may not be sustainable and the refugees concerned may move back to the country of asylum. Creating conditions conducive to voluntary repatriation is a major challenge, primarily for the country of origin but also for the international community, whose support is often crucial. This is particularly true in post-conflict situations, where the expense, effort, and time required to establish peace, ensure respect for human rights, rebuild infrastructure, restore normal political, economic and social life, rehabilitate the judicial system, and foster long-term stability is daunting, to say the least. This difficult reality is weighed against the desire of many countries of asylum for voluntary repatriation to take place as soon as possible, particularly when they have been hosting refugees for a long time. The States concerned may have seen a decline in international support for their protection efforts, raising fears about a long-term strain on their resources. With its mandate for identifying durable solutions, UNHCR must often work to temper unrealistically high expectations from States about the potential for voluntary repatriation when the necessary conditions do not appear to be in place. Unfortunately, refugees often find themselves in a precarious position, caught between inadequate protection and assistance in the country of asylum and continuing insecurity in their country of origin.

Pitaway (2008) argues that the nature of the voluntariness of the repatriation is a major point of contention and a barrier to identifying solutions to the current situation. Voluntariness is not mentioned in the Refugee Convention, which discusses instead the principle of 'safe return', implying that returnees will be protected by the state (*Goodwin-Gill,* 1996). Some scholars have argued that 'once a receiving state determines that protection in the country of origin is viable, it is entitled to withdraw refugee status' (*Hathaway*, 1997). The notions of subjective and objective assessment of 'safe return' have become central to the argument. *Chimni* (1999) argues that one of the most important principles of voluntary repatriation and non-*refoulement* is that 'refugees cannot be returned against their will to a home country that in their *subjective* assessment has not appreciably changed for the better'. UNHCR insists that decisions must be made based on *objective* facts. However, it can be argued that the very determination by UNHCR and states of what is 'objective' is in fact a subjective interpretation to suit their current actions (*Ighodaro,* 2002). *Chimni* argues that this 'objectivism' disenfranchises the refugee voice in decision making about whether or not it is safe to return home.

Local Integration

Local integration is the solution in which the country of asylum provides legal residency. In local integration, the country of asylum offers refugees permanent residence with the possibility of eventual citizenship. Its potential as a durable solution is recognized in both the *1951 Convention* and UNHCR's *Statute*. Although in certain countries naturalization of recognized refugees after a period of time is standard practice, many States have concerns about allowing refugees to stay indefinitely on their soil. They fear the impact on scarce resources, the risk of security problems, and potential antagonism towards refugees. They may also be concerned about controlling migration.

Local integration is a gradual process that takes place on three levels:

a. Legal: refugees are granted a progressively wider range of rights, similar to those enjoyed by citizens, leading eventually to permanent residence and perhaps citizenship;

b. Economic: refugees become gradually less dependent on aid from the country of asylum or on humanitarian assistance and are increasingly self-reliant so that they can support themselves and contribute to the local economy;

c. Social and cultural: interaction between refugees and the local community allows refugees to participate in the social life of their new country without fear of discrimination or hostility.

The commitment to local integration comes from the government of the country of asylum. UNHCR can facilitate the process and bring together a range of actors, including donor States and other United Nations agencies, to design and implement coordinated programmes to assist the refugees' integration.

Resettlement

Resettlement involves the permanent movement of refugees to a third country. Although comparatively small numbers of refugees benefit from resettlement, as acknowledged in *ExCom Conclusion No. 90 (LII) 2001*, it nevertheless serves three equally important functions.

Resettlement is:

a. A protection tool for individual refugees whose life, liberty, safety, health, or other fundamental rights are at risk in the country of asylum;

b. A durable solution for larger numbers or groups of refugees;

c. A mechanism for burden- and responsibility-sharing among States.

Precedence is given to resettling those individuals with specific and immediate protection problems, such as people at risk of *refoulement* or physical attack, including sexual violence when it is used as a protection tool. Individuals who have been tortured or who have a pressing need for medical or psychological care are also considered for the resettlement if they are not in a country with adequate facilities to assist them. As a strategic function, resettlement of groups or categories of people can be part of a comprehensive response to a refugee situation. For example, when voluntary repatriation or local integration is not an option for a particular ethnic group because of a continuing risk of persecution that applies only to them and not to their compatriots, collective resettlement of that group may be appropriate. By its very nature, resettlement is a form of burden- and responsibility-sharing, whereby the pressure on the country of asylum is shared by other States offering permanent place for some of the refugees.

An individual must meet the resettlement criteria of both UNHCR and the potential country of destination to qualify for resettlement. UNHCR's criteria are made in line to use resettlement as a protection tool. UNHCR works with resettlement States to refine and harmonize resettlement criteria and processes. As resettlement is often highly valued by refugees, it is important that its management is transparent, to prevent corruption and to reduce the risk of resettlement becoming a pull-factor for new arrivals.

DURABLE SOLUTIONS TO ROHINGYA REFUGEES IN BANGLADESH:

Voluntary Repatriation: Not a Viable Option

Though Myanmar government does not accept Rohingyas as citizen, the Rohingya people living in Bangladesh regard Arakan/Northern Rakhine state as their natural place of residence. Even a young Rohingya people born and grew up in Bangladesh wants to go back to Myanmar if provided safety and dignity. After the exodus in 1991-92, repatriations had begun in September, 1992 under a bilateral agreement between the government of Bangladesh and Myanmar.

Initial repatriation of the refugees was not voluntary in nature. Both the governments and UNHCR were involved in involuntary repatriation which amounts to *refoulement*. Between September, 1992 and the end of 1993; virtually all repatriations of Rohingya refugees were forceful ones. During this period the UNHCR was not present in Arakan and it had no agreement with Myanmar to provide assistance to returnees. *Human Rights Watch Asia* (September, 1996) in a document entitled *'Ending a Cycle of Exodus'* is critical of the authorities concerned for failing to prevent serious abuses in the refugee camps, including beatings of refugees by security guards, and the denial of food rations by camp officials that apparently point out coercive measures aimed at pushing refugees into returning to Arakan. Indeed, as many as 50,000 refugees returned back across the border involuntarily and without the UNHCR being able to trace their whereabouts (*Grundy-Warr* and *Wong*, 1997).

Later in July 1994, UNHCR activated promotion sessions and mass registration (in place of information sessions and individual interviewing) for repatriation. The organization declared December, 1995 as the deadline to return remaining 190, 000 refugees. It should be noted that the organization violated its mandate in many cases in order to promote quick repatriation. 'Aggression reached a height in mid-July 1997, when 350 refugees – mostly women and children –were rounded up overnight at gunpoint and deported. This set off a 14-month long strike in Nayapara by the refugees, involving some militant elements, in which the refugees took over the camps and boycotted humanitarian services' (*MSF*, 2000). After that the repatriation process became slower and the last repatriation happened in 2005.

Table 1: Year Wise Repatriation of Rohingya refugees

Year	Number of refugees
1992	5962
1993	46129
1994	82753
1995	61504
1996	23045
1997	10073
1998	106
1999	1128
2000	1323
2001	283
2002	760
2003	3231
2004	210
2005	92
Total	**2,36,599**

Source: Refugee Relief and Repatriation Commissioner's Office, Ministry of Food and Disaster Management, Dhaka (Quoted in *Ahmed,* 2010)

Currently, UNHCR has acknowledged that return is not a viable option for the Rohingya refugees (UNHCR ,2007c). Reports by Amnesty International (2004) and stories of persecution of Rohingyas in Burma present credible evidence that refugees who are forcibly returned to Burma will find their life and freedom threatened. However, under pressure from both the Bangladeshi and the Burmese governments, UNHCR is still exploring the possibility of future repatriation. Many refugees do not understand the political positioning of UNHCR and see their continued consideration of repatriation as an act of betrayal (*Pittaway,* 2007; quoted in *Pittaway,* 2008).

Eruption of renewed violence against Rohingyas in Myanmar since June, 2012 created another wave of displacement of Rohingyas. In the current situation and in the foreseeable future there is little light of hope for the voluntary return of Rohingya people to Myanmar.

Local Integration: Unspoken Reality

'Local integration' is a legal, economic and political process by which refugees progressively become members of the host society (UNHCR, 2001). The government of Bangladesh continues to reject local integration as a durable solution for the Rohingya refugees, leaving UNHCR with very limited options. Bangladesh is not well placed to cope with this protracted refugee situation. The country is confronted with extreme poverty and high rates of population growth, and is increasingly affected by natural disasters and climate change. The refugees are to be found primarily in remote and impoverished areas of Bangladesh which have not benefited from the modest economic growth that has recently taken place in some other parts of the country. From the government's perspective, there has been a lack of concerted international action to address the circumstances that forced the Rohingya to leave Myanmar and which now obstruct their repatriation. Bangladesh also considers there has been inadequate international understanding and support with respect to the refugee impact on host communities. The presence and general tolerance of such large numbers of Rohingya in Bangladesh derives in part from the social, ethnic, linguistic and religious characteristics that they share with the host community, particularly their common adherence to Islam. Even so, political and public opinion in Bangladesh is generally not well disposed towards the refugees. And although UNHCR has sponsored a range of projects that are intended to bring tangible benefits to the host population, they have done little to gain popular goodwill or to create additional protection space for the Rohingya (*Kiragu, Rosi* and *Morris*, 2011).

In spite of opposition from the government and local host community, it is a fact that many Rohingyas are being integrated in Bangladeshi society. This is happening in mainly two ways; illegally collecting Bangladeshi nationality documents and inter-marriage with local Bangladeshis. In the past, it was quite easy to 'buy' Bangladeshi nationality certificate which is issued by village level Union Council Chairman. It has become difficult now as government has made nationwide database of citizens in 2008. Employment is also a major process of integration. As many Rohingyas are involved in informal jobs, they gradually become economically self-reliant. Many unregistered Rohingyas are seen living in the slums of Cox's Bazar along with the poor Bangladeshi families. They work in and around Cox's Bazar in mainly manual jobs including as rickshaw puller, day laborer, fishermen, and domestic workers and in dry fish processing (*Azad* and *Jakea*, 2013).

Resettlement: Too little to count

Resettlement opportunity was not available for Rohingya refugees in Bangladesh until 2006. The government of Bangladesh refused permission for refugee travel and countries offering programmes of resettlement showed no active interest in accepting this caseload. At first, in 2007, only 23 Rohingya refugees departed for Canada. Later, New Zealand, UK, Australia, USA, Ireland, Norway and Sweden came forward to accept some Rohingya people as refugee. Sadly, the selection criteria of those countries resettling refugees from Bangladesh would appear to focus on those most likely to integrate easily into the host communities, rather than those in greatest need. There are concerns about the more intensive on-arrival needs and the poor integration of refugees from protracted refugee situations and the potential cost to the host communities (ATCR, 2007). The poor health status, low levels of education and trauma experienced by this population make it unlikely that they will easily fit into '*integration*' criteria. It is also feared that the international backlash against groups suspected of being fundamentalist Muslims would prevent some countries from even considering this caseload for resettlement (*Pittaway,* 2008). In November 2010, Bangladesh government suspended resettlement operation. According to government, it would act as a pull factor for the new waves of refugees from Myanmar.

Table 2: Resettlement of Myanmar refugees from Bangladesh, 2006 – 2010

Year	Destination	Submissions	Departures
2006	Canada	28	13
Total		28	13
2007	Canada New Zealand United Kingdom	204 54 121	75
Total		379	75
2008	Australia Canada Ireland New Zealand Norway Sweden United Kingdom United States	151 212 112 11 12 19 32	 76 23 4 19 34
Total		549	156
2009	Australia Canada Ireland New Zealand United Kingdom United States	120 3 12 112 302	108 122 82 27 109 17
Total		549	465
2010	Australia Canada New Zealand United Kingdom United States	108 112 272	134 17 6 47 7
Total		492	211
Grand Total		**1997**	**920**

Source: Kiragu, Rosi and *Morris* (2011)

Other governments in the region are reluctant to become involved in the debate around the Rohingya refugees. They are afraid of secondary movement to their territory and do not wish to accept any additional refugee caseload. There has also been reluctance from regional powers to criticize the human rights record of the Myanmar regime, as they do not wish to jeopardize trade with this resource rich country. Rohingya refugees do, however, flee to other countries, including India, Gulf States, Japan, Pakistan, Saudi Arabia, Thailand and the United Arab Emirates. This movement is often facilitated by criminal gangs who charge exorbitant fees, leaving the refugees vulnerable to abuse and exploitation. Many states deny admission to the Rohingyas and some have engaged in systematic *refoulement* to avoid creating pull factors to their countries (UNHCR, 2007a). There is a significant movement of Rohingyas from Bangladesh to Malaysia, with many reports of refugees drowning when inadequate small boats are wrecked. The Malaysian government is unwilling to accept these arrivals, who again find themselves in very difficult circumstances as unregistered refugees (*Pittaway,* 2008).

Though the secondary movement of Rohingyas through irregular channels is not supported by any state, the refugees themselves increasingly prefer this way after having lost all hope in legal solutions.

WHAT SHOULD BE DONE?

Rohingyas are among a dozen of persecuted communities in Myanmar. But the key difference of Rohingyas with

other communities is that while others are citizens and recognized races of Mynamar, the Rohingyas are not. Even if Myanmar becomes a fully democratic country, the future democratic government may not provide full citizenship to Rohingya people. The sour reality can be assumed from the statement of Aung San Suu Kyi, the icon of Myanmar democracy. In a TV interview to the BBC in October 2013, she denied that her country was engaged in ethnic cleansing and suggested that the violence against Muslims was because of fear of global Muslim power. She even could not dare to directly condemn anti-Muslim violence (*Ibrahim,* 2013; *Blair*, 2013).

The prospect that democracy will be reinstated in Burma and that the Rohingyas will be safe to return home in the foreseeable future seems extremely unlikely. The international community could consider using internationally brokered Security Council Resolutions, and Conventions other than the Refugee Conventions to seek solutions to the problems of the Rohingyas. If the military junta in Burma continues to be intractable in persecuting ethnic minorities in Burma, the international community could consider activating the potential of UN Security Council Resolution 1674 (UNSC *1674*), a reaffirmation of the 'Responsibility to Protect' (**R2P**) populations who suffer from extreme human rights abuses and lack of protection from their own governments. In January 2007, a draft resolution was presented to the UN Security Council by the United Kingdom and the United States evoking UNSC *1674* in relation to Burma. Amongst other things, it called for the Burmese government to cease all attacks on ethnic minorities, including rape, and to offer unhindered access to humanitarian organizations. China and Russia voted against the resolution, China stated that Burma did not pose a threat to international peace and security in the region. However, this was contested by members of the Association of South East Asian Nations (ASEAN) who expressed dissatisfaction with the slow pace of reforms in Burma (*Thompson,*2007; quoted in *Pittaway*, 2008).

The notion of burden sharing is also highly essential in this case. Developed countries should come forward to resettle a large number of refugees. Bangladesh suspended resettlement operation as it was small-scale and acted as a pull factor. A large scale resettlement like Bhutanese refugees would gain all support from Bangladesh government.

The refugees who are trapped in protracted situations and who cannot benefit from any of the three classical durable solutions should at least be able to establish livelihoods and become self-reliant in their country of asylum, an objective which often depends on refugees having freedom of movement and the ability to access local markets. In the words of UNHCR's 2011 protection assessment, '*after 18 years of a confined and sometimes repressive camp environment, a severe dependency syndrome within the camp community has developed which is difficult to reverse*' (*Kiragu, Rosi* and *Morris*, 2011). Current general understanding in Bangladesh is that providing livelihood and educational opportunity to Rohingyas will be a pressure on local and national resources. But leaving them behind of all facilities would be more problematic for Bangladesh as without any way to earn and live, the desperate people may involve in criminal activities.

Many Rohingyas want to travel to other countries to work as migrant worker, if not refugee. One can see the desperation among the people who travel by boat to reach Thailand, Malaysia and other countries. Bangladesh government can provide the Rohingyas special travel documents just to travel to other countries. If they send money back to families in Bangladesh, it would be a contribution to Bangladesh economy.

CONCLUSION

We have reflected over the uncertain future of the Rohingyas and the ways to find durable solutions to their plight. UNHCR conducted a number of studies to seek the solutions for Rohingyas but most of the recommendations are within the improvement of care and maintenance rather than long term solution. The basic reason of protracted situation is political. The solution should emanate from political prism. UNHCR, which is mandated to protect refugees, is not a political organization; its purpose is merely humanitarian. In the country where the democratic leaders are not supporting human rights, where non-violent monks are leading the politics of hatred; it would be wrong to expect anything from semi-democratic rulers of that country. We strongly believe that the solution lies in international pressure which should also be backed up with credible hard power.

Appalled at the inaction of international community even after long period of persecution, *Human Rights Watch* noted, '*because they have no constituency in the West and come from a strategic backwater, no one wants them, even though the world is well aware of their predicament.*'(*HRW*, 2009). In this case, humanitarian intervention should be non-biased of narrow national interest. Help should not be for those who can lobby or can give something in return but for those who are in need.

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AN ESTIMATION OF PRODUCTION FUNCTION IN THE AGGREGATE MANUFACTURING SECTOR OF SOUTHERN STATES OF INDIA IN THE POST-REFORM PERIOD

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ABSTRACT

The production function is purely a technical relation, which connects factor inputs and outputs. It describes the laws of proportion, i.e., the transformation of factor inputs into outputs at any particular time period. The production function represents the technology of a firm or an industry, or the economy as a whole, and it includes all the technically efficient methods of production. In this paper, an effort is made to estimate production function in the aggregate manufacturing sector of southern states for the reference period between 1991-92 and 2010-11. The results assessed the importance of skilled labour component in the states such as Karnataka, Andhra Pradesh and Kerala. With regard to the type of technology adopted by the states, it could be observed that the manufacturing sector of Andhra Pradesh, Karnataka and Kerala were adopting labour intensive technology since the co-efficients of wage ($\beta2$) was greater than capital co-efficient ($\beta1$). The manufacturing sector of Tamil Nadu was known for capital intensive technology based on the co-efficients ($\beta1>\beta2$).

Keywords: Capital –labour ratio (K/L), co-efficient of labour (β), Marginal productivity of capital (MPK), Marginal productivity of labour (MPL), Marginal Rate of Substitution of labour for capital (MRTSLK).

INTRODUCTION

The performance of the supply side of an economy is often identified with the growth rate of potential output. Potential output is not observed in reality, however, and has to be approximated. The use of the production function method for the measurement of potential output growth takes into account different sources of an economy's productive capacity, namely the contributions of labour, capital and total factor productivity, the latter containing information about technological and allocative efficiency and hence about the supply-side functioning. Using the production function, one can discuss changes in the supply-side performance on the basis of the observed simultaneous developments in the quantity of labor, capital and total factor productivity. For instance, an increase in the rate of capital growth accompanied by a rise in trend total factor productivity may signal some improvement in the supply-side performance. Observing an increase in the rate of the capital growth while trend total factor productivity stagnates, one can, in contrast, deduce that the supply side is functioning ineffectively. The production function thus represents a useful and powerful tool for the macro economic analysis and evaluation of the governmental structural policies. (*Hajkova, Dana* and *Hurník, Jaromír*; 2007).

The production function is purely a technical relation, which connects factor inputs and outputs. It describes the laws of proportion, i.e., the transformation of factor inputs into outputs at any particular time period. The production

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function represents the technology of a firm or an industry, or the economy as a whole, and it includes all the technically efficient methods of production. Production functions involve and can provide measurements for the following concepts, and one among them is the efficiency of production, which this paper plans to estimate:

1. The marginal productivity of the factors of production

2. Factor intensity

3. The returns to scale

The organizational efficiency is measured by the co-efficient $\beta 0$. Intuitively it is clear that if two firms have the same K(fixed capital), L(wages and salaries of employees), $\beta 1$, $\beta 2$(co-efficient of Labour) and still produce different quantities of output, the difference is due to the superior organization and entrepreneurship of one of the firms, which result in different efficiencies. The more efficient firm will have a larger $\beta 0$ than the less efficient one.

Cobb-Douglas Production Function is one of the most widely used production function in economics and management research. This production function not only satisfies the basic economic law but also easy in its computation and interpretation of the estimated parameters. The objectives of applying Cobb- Douglas production function is to estimate the co-efficient of inputs, their marginal productivities, factor shares in total output and degree of returns to scale. It is based on unitary elasticity of substitution of inputs and this production function has been widely applied in empirical studies.

METHODOLOGY

The basic data source of the study was Annual Survey of Industries (ASI) published by the Central Statistical Organization (CSO), Government of India covering the period from1998-99 to 2010-11.All the referred variables were normalized by applying Gross Domestic Product (GDP) deflator. The GDP at current and constant prices were obtained by referring to Economic Survey, published by the Government of India, Ministry of Finance and Economic Division, Delhi .The reference period chosen for the study covers post-liberalization period between 1991-92 and 2010-11.

The following model was applied to the data on output and input for estimating the C-D function

$$Y=AK^{\alpha}L^{\beta}R^{\gamma}$$

Where Y = output(Net value added)

K = Fixed capital

L = wages & salaries of Employees

A = Efficiency parameter

α = Co- efficient of capital

β = Co- efficient of Labour

The logarithm of both sides of the above model was taken to convert the equation into linear form; its log transformation is specified below:

$$\log Y = \log A + \alpha \log K + \beta \log L + u.$$

The efficiency parameter (A) and the co-efficients of the inputs were estimated by applying the above equation. Parameters 'α', and 'β' represent individually the proportionate change in output for a proportionate change in Capital and Labour. The two co-efficients taken together to measure the aggregate proportionate change in output for a given proportionate change in labour, capital and raw material. This implies that $\alpha + \beta$ shows the degree of returns to scale.

If $\alpha + \beta > 1$, it would imply that the output increase would be more than proportionate to the increase in inputs, if $\alpha + \beta < 1$, it would imply that the output increase would be less than proportionate to the increase in inputs and if $\alpha + \beta = 1$ the output would just increase proportionately to the rate of increase of inputs. This implies that the CD production function

can represent any degree of returns to scale.

i) Marginal productivity of labour (MPL)

Marginal productivity of labour may be defined as the ratio between a change in output in a given economy or industry for a given time period and change in employment of that economy or industry for similar period. The MPL is derived from the OLS method   following Cobb-Douglas production function:

$$MPL= \beta \,(O/L)$$

$$= \beta \,(APL)$$

ii) Marginal productivity of capital (MPK)

MPK is the additional output resulting from the use of an additional unit of capital (ceteris paribus, or assuming all other factors are fixed). It is the partial derivative of the production function with respect to capital.

$$MPK = \alpha \,(O/K)$$

$$=\alpha \,(APk)$$

iii) Marginal Rate of Technical Substitution of labour for capital (MRTSLK)

In economic theory, the Marginal Rate of Technical Substitution (MRTSLK) or Technical Rate of Substitution (TRS) is the amount by which the quantity of one input has to be reduced when one extra unit of another input is used so that output remains constant MRTSLK $=MP_L \div MP_K$ where MP_L and MP_K are the marginal products of labour and capital, respectively. In other words it shows the rate at which one input (e.g. capital or labor) may be substituted for another, while maintaining the same level of output. The MRTSLK can also be seen as the slope of an isoquant at the point in question.

iv) Capital –labour ratio (K/L)

It is known as capital intensity. A business is considered capital intensive based on the ratio of the capital required to the amount of labor that is required.

Results and discussion:

i)   Marginal productivity of labour (MPL)

Details regarding marginal productivity of labour is presented in **Table -1**

Table 1: Marginal productivity of labour (MPL)

Year	Andhra Pradesh	Karnataka	Kerala	TamilNadu	X	σ	C.V
1991-92	0.0020	1.5400	0.0480	0.7700	0.5966	0.7244	122.79
1992-93	0.0020	1.5464	0.0452	0.7652	0.5897	0.7276	123.37
1993-94	0.0021	1.5075	0.0455	0.7923	0.5869	0.7129	121.48
1994-95	0.0021	1.5869	0.0458	0.7952	0.6075	0.7475	123.05
1995-96	0.0025	1.9712	0.0587	0.9825	0.7537	0.9277	123.08
1996-97	0.0025	1.9321	0.0573	0.9721	0.7410	0.9101	122.82
1997-98	0.0026	1.8823	0.0565	0.9434	0.7212	0.8861	122.87
1998-99	0.0025	1.9293	0.0609	0.9488	0.7354	0.9061	123.21
1999-00	0.0025	1.9211	0.0550	0.9671	0.7364	0.9055	122.95
2000-01	0.0025	1.9290	0.0570	0.9717	0.7401	0.9088	122.8
2001-02	0.0026	1.9657	0.0566	0.9502	0.7438	0.9233	124.13
2002-03	0.0025	2.0092	0.0582	0.9438	0.7534	0.9417	124.98
2003-04	0.0027	2.0349	0.0576	0.9692	0.7661	0.9550	124.65

2004-05	0.0030	2.3034	0.0649	1.0696	0.8602	1.0792	125.46
2005-06	0.0030	2.2418	0.0652	1.0965	0.8517	1.0538	123.73
2006-07	0.0032	2.3253	0.0618	1.1081	0.8746	1.0923	124.89
2007-08	0.0032	2.3314	0.0665	1.1124	0.8784	1.0941	124.56
2008-09	0.0032	2.3592	0.067	1.0783	0.8769	1.1041	125.91
2009-10	0.0031	2.1669	0.0646	1.0885	0.8308	1.0204	122.82
2010-11	0.0033	2.2943	0.0673	1.1431	0.8770	1.0799	123.13
x	0.0027	1.9889	0.0580	0.9734	0.7557		
σ	0.0004	0.2787	0.0072	0.1186			
c.v	15.4040	14.0130	12.4520	12.184			

Source: Calculations are based on ASI data.

MPL ratio across states showed that during the post -reform period as a whole it was 0.7557. From 0.59 in 1991-92, it had increased to 0.7557 at the end of the period. Across the four southern states it was maximum for the state of Karnataka (1.9889) followed by Tamil Nadu (0.9734), Kerala (0.0580) and Andhra Pradesh (0.0027).

ii)Marginal productivity of capital (MPK)

Details regarding marginal productivity of labour are presented below in **Table -2.**

Table 2: Marginal productivity of capital (MPK)

Year	Andhra Pradesh	Karnataka	Kerala	TamilNadu	X	σ	C.V
1991-92	0.6220	0.0980	0.3240	0.1940	0.3095	0.2280	73.6641
1992-93	0.6419	0.0948	0.3217	0.1932	0.3129	0.2382	76.1221
1993-94	0.6451	0.0925	0.3162	0.1960	0.3124	0.2399	76.7689
1994-95	0.6889	0.0938	0.3240	0.1888	0.3239	0.2610	80.5935
1995-96	0.7261	0.0920	0.3162	0.1934	0.3319	0.2783	83.8488
1996-97	0.6961	0.0908	0.3307	0.1894	0.3267	0.2652	81.1685
1997-98	0.7134	0.0827	0.3027	0.1853	0.3211	0.2766	86.1475
1998-99	0.6909	0.0761	0.3416	0.1853	0.3234	0.2681	82.8859
1999-00	0.7022	0.0801	0.3086	0.1861	0.3192	0.2718	85.1462
2000-01	0.7026	0.0806	0.3227	0.1908	0.3242	0.2710	83.5997
2001-02	0.7053	0.0802	0.3150	0.1873	0.3219	0.2730	84.7964
2002-03	0.7097	0.0830	0.3243	0.1808	0.3244	0.2753	84.8552
2003-04	0.7223	0.0852	0.3314	0.1879	0.3317	0.2793	84.2066
2004-05	0.7420	0.0919	0.3264	0.1890	0.3373	0.2864	84.9140
2005-06	0.7413	0.0895	0.3302	0.1929	0.3385	0.2861	84.5198
2006-07	0.7635	0.0953	0.3068	0.1964	0.3405	0.2950	86.6249
2007-08	0.7528	0.0935	0.338	0.1957	0.3450	0.2898	83.9846
2008-09	0.7493	0.0900	0.3380	0.1873	0.3412	0.2906	85.1695
2009-10	0.7485	0.0851	0.3294	0.1912	0.3386	0.2910	85.9608

Year						
2010-11	0.7647	0.0843	0.3292	0.1949	0.3433	0.2983	86.8838
x	0.7110	0.088	0.3240	0.1900	6.5676		
σ	0.0400	0.006	0.0110	0.0040			
c.v	5.6640	7.0600	3.2470	2.2450			

Source: Calculations are based on ASI data.

MP_K ratios of southern states during post- reform period showed that it was positive for all the states, which implied that capital has contributed positively to output by all the southern states. The mean MP_K was 0.328 from the beginning to the end of the period. It is also evident from the analysis that there were not many variations across the states. It varied between 0.08879 and 0.7114. The maximum marginal productivity performance was recorded by Andhra Pradesh and the minimum productivity performance was recorded by Karnataka.

iii) Marginal Rate of Substitution of labour for capital (MRTSLK)

Marginal rate of Technical substitution of labour for capital (MRTSLK) is shown in **Table- 3.**

Table 3:Growth of MRTSLK

Year	Andhra Pradesh	Karnataka	Kerala	TamilNadu	X	σ	C.v
1991-92	0.0032	15.7140	0.1481	3.9691	4.9587	7.40181	149.2697
1992-93	0.0032	16.3110	0.1404	3.9609	5.104	7.69347	150.7344
1993-94	0.0032	16.3000	0.1439	4.042	5.1224	7.68338	149.9969
1994-95	0.0031	16.9090	0.1415	4.2125	5.3164	7.97102	149.9317
1995-96	0.0035	21.4370	0.1856	5.0789	6.6762	10.1173	151.5429
1996-97	0.0036	21.2810	0.1733	5.1333	6.6477	10.0412	151.0476
1997-98	0.0036	22.7530	0.1867	5.0902	7.0082	10.7573	153.4952
1998-99	0.0037	25.3630	0.1783	5.1217	7.6666	12.0336	156.9618
1999-00	0.0036	23.9790	0.1784	5.1963	7.3394	11.3516	154.6664
2000-01	0.0036	23.9360	0.1767	5.0933	7.3023	11.3372	155.2545
2001-02	0.0036	24.5170	0.1797	5.0725	7.4431	11.6222	156.1471
2002-03	0.0036	24.2170	0.1796	5.2209	7.4052	11.4658	154.8344
2003-04	0.0037	23.8960	0.1738	5.1592	7.3082	11.3142	154.8148
2004-05	0.0041	25.0730	0.1987	5.6581	7.7334	11.8529	153.2691
2005-06	0.0041	25.0560	0.1976	5.6842	7.7353	11.8433	153.1058
2006-07	0.0041	24.3980	0.2016	5.6430	7.5618	11.5245	152.4045
2007-08	0.0042	24.9320	0.1967	5.6841	7.7043	11.7833	152.9439
2008-09	0.0042	26.2070	0.1982	5.7556	8.0413	12.4007	154.2125
2009-10	0.0041	25.4550	0.1962	5.6936	7.8372	12.0377	153.5969
2010-11	0.0043	27.2140	0.2045	5.8646	8.3218	12.8844	154.8264
X	0.0037	22.7470	0.1790	5.1167	7.0117		
σ	0.0004	3.5856	0.0207	0.6140			
C.v	10.2730	15.763	11.5530	12.0010			

Source: Calculations are based on ASI data.

It is evident that MRTSLK values during post -reform period were positive and the mean MRTSLK was 7.0117 which implied that MP_L was greater than MP_K. The inter - state ratio was maximum for Karnataka and minimum for Kerala. MRTSLK varied widely across the states indicating differences in the marginal productivity ratios. The growth of capital- labour ratio during the reference period is discussed in the **Table -4.**

Table 4: Growth of capital –labour ratio (K/L)

Year	Andhra Pradesh	Karnataka	Kerala	TamilNadu	X	σ	C.v
1991-92	2.3880	1.5399	1.3541	1.6264	1.7271	0.4550	26.3455
1992-93	2.5440	2.1107	1.2936	1.8429	1.9478	0.5231	26.8560
1993-94	3.0811	2.2128	1.5428	2.2381	2.2687	0.6301	27.7720
1994-95	2.8061	2.8700	1.4601	3.0154	2.5379	0.7238	28.5211
1995-96	2.4076	3.3858	2.3845	3.0634	2.8103	0.4962	17.6570
1996-97	2.9961	3.9908	1.8787	3.4526	3.0796	0.8979	29.1553
1997-98	3.0814	5.2652	2.8045	3.4293	3.6451	1.1099	30.4492
1998-99	3.6341	8.7977	2.6028	3.8611	4.7240	2.7705	58.6479
1999-00	3.5197	7.3384	2.4487	4.2219	4.3822	2.1014	47.9521
2000-01	3.4479	7.3303	2.5959	4.0448	4.3548	2.0709	47.5556
2001-02	4.0043	8.6271	2.8330	4.0030	4.8669	2.5669	52.7417
2002-03	3.7073	8.9333	2.9887	4.7253	5.0887	2.6603	52.2783
2003-04	4.7344	9.1260	2.5435	4.8989	5.3257	2.7517	51.6672
2004-05	4.4983	8.8967	2.6955	4.8736	5.2410	2.6160	49.9142
2005-06	4.7973	8.7636	2.6581	5.4147	5.4084	2.5295	46.7691
2006-07	6.0779	9.0238	2.8739	5.5725	5.8870	2.5202	42.8091
2007-08	7.4501	10.560	2.9624	6.1814	6.7887	3.1450	46.3280
2008-09	8.1773	14.495	3.5926	6.7155	8.2453	4.5847	55.6043
2009-10	11.518	10.869	3.4316	7.0303	8.2123	3.7522	45.6906
2010-11	15.402	17.845	4.6584	9.2475	11.788	5.9731	50.6701
X	4.2436	6.7069	2.3473	4.0105	4.3271		
σ	2.3523	3.5570	0.6706	1.5436			
C.v	55.433	53.0358	28.5689	38.488			

Source: Calculations are based on ASI data.

Capital- labour ratios of four southern states during post- reform period showed that the mean ratio across the state was maximum for Andhra Pradesh(4.2436), followed by Tamil Nadu(4.0105), Karnataka (6.7069) and Kerala (2.3473). The K/L ratios of southern different states have increased over the years which shows that higher quantum of fixed assets had been accumulated for a given unit of labour.

v) Factor intensity and returns to scale

Co-efficients of Cobb-Douglas production function which explains factor intensity and returns to scale is presented in the following **Table-5.**

Table- 5: Estimation of Factor Intensity and Returns to Scale

States	Efficiency parameter (A)	Capital (β1)	Wages (β2)	Economics of scale (s)	R^2	D.W statistics	β1/s	β2/s
Andhra Pradesh	-0.913** (-6.199)	0.206 (1.358)	1.251** (7.114)	1.457	0.975	0.993	14	86
Karnataka	-1.040* (-2.445)	0.039 (0.236)	1.299 (5.137)	1.338	0.958	0.702	3	97
Kerala	-0.164 (-0.332)	0.378 (1.043)	0.708* (2.085)	1.086	0.924	2.354	35	65
Tamil Nadu	-0.364 (-1.477)	0.701* (2.580)	0.355** (2.133)	1.056	0.978	1.143	66	34

Source: Calculations are based on ASI dat.

Foot note: * significant at 1 percent level,** Significant at 5 percent level. Figures in parentheses indicate `t' values.

Efficiency parameter A or the organizational efficiency was negative in all the states. This implied that in the southern states the contribution of entrepreneurship to output was negative.

Capital co-efficient β1 is positive in all the states which implied that there existed positive relationship between output and capital. But it is statistically significant in the state of Tamil Nadu. Wage co-efficient β2, was also positive and statistically significant for all the states. This implied that there existed positive relationship between inputs - output and wages. It was statistically significant for all the states.

The sum of co-efficient (s) β1and β2 shows increasing returns to scale in all the states. It was also surprising to note that the R^2 was high in all the states. The percentage share of factor inputs presented indicated that the percentage share of wage was higher in three out of the four states than capital. It was maximum for Karnataka (97 percent) followed by Andhra Pradesh (86 percent), Kerala (65 percent) and Tamil Nadu(34 percent).

CONCLUSION

The result assess the importance of skilled labour component in the states such as Karnataka, Andhra Pradesh and Kerala. With regard to the type of technology adopted by the states, it could be observed that the manufacturing sector of Andhra Pradesh, Karnataka and Kerala were adopting labour intensive technology since the co-efficients of wage (β2) was greater than capital co-efficient (β1). The manufacturing sector in Tamil Nadu was known for capital intensive technology based on the co-efficients (β1>β2).

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RURAL INDIAN ECONOMICS – SUPPLEMENTING AGRICULTURE WITH TOURISM FOR DEVELOPMENT

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ABSTRACT

Rural development is really a point of deep concern in India where majority of population (68%) is still living in villages in condition of extreme poverty untouched by the spree of globalization in the last two decades. An analysis into performance of rural economy reveals that an annual increase of 0.97 percent in employment is lower than the rise in the concomitant rural work force. This paper is an attempt to analyze the situation of the rural India in post- reform period as well as to chart out the necessity of developing Indian tourism in a rural settings by analyzing tourism's contribution in generating brisk employment across local and rural India. Tourism is a vital tool for economic development, employment generation and equitable distribution of income and needs to be encouraged for growth of neglected, remote and rural / backward areas possessing tourism potentials. Tourism in India can ensure significant development in terms of the infrastructure at the destinations, generate local employment, and induce multi- sectoral overall growth of the economy and above all effect the optimum share of global tourist arrivals and earnings that still remains elusive even after active interventions of couple of five year plans.

Keywords: Agri-tourism ,employment , enterprise growth, labour force, local community, own account enterprises(OAE), rural development.

INTRODUCTION

Rural development is really a point of deep concern in India where majority of population (68%) is still living in villages in condition of extreme poverty, ill- health and illiteracy; and are poorly organized for effective participation in programs of their own welfare. The disempowered populace lack technical knowledge and have no access to resources except human capital for improving their economic condition. Keeping in view the inadequacy and inconsistency that the economy faces, it is essential to pursue a suitable policy with a deliberate rural focus and strategic developmental outreach towards the disadvantaged districts / regions of the economy. The success of rural Indian economy is dependant to a great extent on the growth of agriculture sector with no other considerable alternate sector that may be enriching for the rural Indian economy. Thus any policy measure to be introduced in this sphere has to be taken up in right earnest.

India is the largest democracy with consistent economic growth rate since independence however, with regard to demographic profile one third of its population live in rural areas. Despite the ongoing development, there is a wide gap between rural and urban India with respect to technology, living condition, economic empowerment etc. The total land area of India is 2,973,190 sq.km. of which 70% of area comes under the rural area which comprises of 6,40,867 villages. Out of this, total 5,98,000 are inhabited villages. There are only 7,935 towns and 4,041 urban areas as per the Census of

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India(2011). The **Table** 1 discloses how rural population constitute more than two-third of the total population of India. But with respect to other development indicators , rural India is a laggard. Rural India primarily depends on sustainability of the agricultural sector. The growth rate in agricultural sector (primary sector) is 2-3% when compared to secondary and tertiary sector which are growing at the rate of 8-12%. Due to such pull factor, there is a large scale migration of labour forces from rural to urban centres in search of employment thereby also generating the urbanization of poverty as a major concern.

Table 1: Population in India

India	Total	Male	Female
Total	1,21,01,93,422	62,37,24,248 (51.5%)	58,64,69,174 (48.5%)
Rural	83,30,87,662 (68.84%)		
Urban	37,71,05,760 (31.16%)		

Source: Census of India, 2011

The nation will not really progress unless the rural development is specially taken care off. Globalization in itself is no solution to the rural development. It is essential to have the safety nets for the poor when things go wrong for one reason or another; hence, this paper is an attempt to analyze the situation of the rural India in post-reform period as well as to chart out the necessity of developing Indian tourism in a rural settings.

TOURISM POTENTIAL IN INDIA

Tourism in India, offering large and diverse range of tourism products all across the length and breadth of the country, still remains quite insignificantly low both in terms of share of the world arrivals and tourism receipts, despite having much larger share in terms of geography, better tourism products and still the more – better prospects of developing man-made tourism. Tourism is being utilized by many underdeveloped / remote areas across the world as the best instrument for growth of neglected, remote and rural / backward areas. Tourism in India can ensure significant development in terms of the infrastructure at the destinations, generate local employment, and induce multi- sectoral overall growth of the economy and above all effect into the optimum share of global tourist arrivals and earnings that still remains elusive.

Tourism business is assumed as human industry because of its significant importance of manpower working in it. The human factor is the most significant one, since it is the people who have to use all other resources. The people in tourism industry are service-producers and service-providers as well. They are also managers for the service and planners who can create added-value for tourism product. However, when it comes to retailing the tourism products, we fail to assimilate the human development or the local communities who are not only beneficiaries but are also the epitome of India's culture and ethos. Many destinations or tourism products lack an insufficient promotional activity for rural / underdeveloped areas although endowed with sufficient tourism product. This arises out of putting marginal relevance of these products as a cultural tourism destination, the seasonal nature of tourism itself, or insufficient hospitality infrastructure. The question is that how local community can offer a viable solution for tourism development and remove its barriers in local communities? This can be done by increasing the community capacity in tourism . *Smith, Baugh-Littlejohns & Thompson* (2001) describe community capacity building as the "*essence of development"*. The development of such areas for tourism requires the need to cater to the requirements of the local community. Social and economic benefits must firstly benefit the local population and then tourism. Tourism can also serve as an instrument for effective marketing for the underdeveloped / rural areas as well as generating employment for such areas. Discussing this issue, *Martha Frederick* (1992), in the book, "*Tourism as a Rural Economic Development Tool: An Exploration of the Literature'*, gives an effective solution to the above mentioned problems. She considers that tourism can be an important source of jobs for economically underdeveloped / rural areas. Tourism offers business opportunities to local residents and can serve as a vehicle for marketing a place to potential residents and firms. In tourism sector, family firms or the local communities can be effectively utilized for retailing the Indian tourism beyond the borders of the country. *Rhodri Thomas, Gareth Shaw,* and *Stephen J. Page* (2011), mention how small firms are important from various points of view, all leading to the consolidation of the industry towards building from a developing state to robust economy. Further, *Jean-Luc Arregle, Michael A. Hitt, David G. Sirmon* and *Philippe Very* (2007) appropriates social capital theory and argue that family firms are unique as they work as a single entity, where at least two forms of social capital coexist: the family's and the firm's. Finally, they suggest the family firms' insights are generalizable to several other types of organizations more so often

with service orientation. Tourism, being the highly labour intensive activity, creates a high proportion of employment opportunities for low and semi skilled workers, particularly for poor, female (Women make up 70% of the labour force in tourism) and young workers (*Report of the Working Group on Tourism,* 12th Five-Year Plan, 2011). In India, the technical planning and assistance can prove crucial to tourism development success for many small communities with limited resources in the short run and may solve the long run shortfall of human resource development for growth in Indian tourism.

PERFORMANCE OF INDIA'S RURAL ECONOMY: AN ANALYSIS

While analyzing the performance of India's rural economy, *Sarthi Acharya* and *Anup Mitra* of the South Asia Multidisciplinary Advisory Team(SAAT) highlights the following points about the rural economy in their working papers entitled, "*The potential of Rural Industries and Trade to provide decent work conditions: A data Reconnaissance in India*" . **Table** *2* contains information on the number of enterprises and total employment in rural India. In 1990, the total number of non- agricultural enterprises recorded in rural areas were 10,841,200 employing 29,302,000 workers (excluding Andhra Pradesh and West Bengal for which the data was yet not readily available). Rough estimates would place this at about 14 – 15 percent of the total rural labour force. Of these 10 – 11 million enterprises, a little more than 8 million were own account worker enterprises (OAE), meaning the family- manned units, and the rest 2.8 odd million were establishments, meaning these employed at least one hired worker. In other words, over 75% of the non-farm enterprises are one person enterprises. The average employment per enterprises works out to be 2.7 workers; while the figure for own account enterprises and establishments are 1.4 and 4.9, respectively .

Table 2: Growth Rates of Non- Agricultural OAE & EST in Rural India, Enterprises and Employment as per Economic Census (%)

State	Total No of OAE (b/w 1980-90)	Total No of EST (b/w 1980-90)	Total Employment (In OAE) (b/w 1980-90)	Total Employment (In EST) (b/w 1980-90)	Total No of OAE (b/w 1990-98)	Total No of EST (b/w 1990-98)	Rate of Growth of Employment (b/w 1990-98)
Andhra Pradesh	2.91	2.78	2.56	4.11			
Assam					1.55	0.95	4.39
Bihar	0.74	2.06	0.37	2.46	-1.36	1.56	-2.67
Gujerat	0.41	0.72	0.3	2.7	-2.28	-2.09	-0.48
Haryana	2.18	4.28	1.57	4.69	0.78	2.12	1.33
Karnataka	0.79	2.13	0.15	3.8	-1.96	-2.35	0.68
Kerala	1.86	2.39	0.99	1.69	1.01	4.56	3.01
Madhya Pradesh	2.11	3.4	1.62	4.91	-0.61	0.43	-0.03
Maharashtra	1.79	2.69	1.32	2.57	0.58	-0.13	1.71
Orissa	2.83	3.59	2.57	4.04	3.31	1.59	1.62
Punjab	1.99	2.99	1.64	4.45	1.67	1.07	1.91
Rajasthan	0.82	4.81	0.24	3.66	0.65	-1.14	1.97
Tamil Nadu	0.4	3.55	-0.04	3.59	-0.88	2.32	0.98
Uttar Pradesh	1.24	1.39	0.45	2.1	0.42	-0.63	-0.34
West Bengal	6.09	4.07	5.9	3.48			
All India	2.27	3.12	1.87	3.64			
All India (13 States)					0.18	0.75	0.97

Note: OAE – Own Account Workers; EST – Establishments; b/w – between.
Source: *Acharya, Sarthi* and *Anup Mitra*; SAAT working papers

There were 12.6 million enterprises enumerated in 1990, about 9.5 in the own account enterprises category and about 3.2 million in the establishment category. If comparison is restricted to 13 major states (for which a corresponding panel data set can be constructed), a rise of about 2.6 percent in the number of enterprises is observed, which yields an annual exponential growth of 0.32 percent on the aggregate. There was an annual growth of 0.18 percent in enterprises of the

own account enterprise and 0.75 percent annual growth in enterprises has increased by 7.78 percent through these 8 years, which averages to 0.97 percent exponential growth per annum. Data pertaining to the period of the 1980s shows a stark contrast (**Table** 2) compared to the 1990s. There was higher growth, both in the number of enterprises and employment in that period, which also coincides with the fact that the period of the 1980s was one of the fiscal expansion in an otherwise controlled economy. As for the differential growth between own account enterprises and establishments, the pattern in the 1980s and 1990s is the same; meaning that own account enterprises grew at a pace slower than establishments even in the earlier period. Some find the opening up of the economy in 1990s to be the reason for the slow growth and shuttering down of many non-agricultural enterprises in rural areas.

Table 3: Principle Crops – Growth of Production & Yield

(Percent per annum)

	Production		Yield	
	(b/w 1980/81 – 1989/90)	(b/w 1990/91 – 2000/01)	(b/w 1980/81 – 1989/90)	(b/w 1990/91 – 2000/01)
Food Grains	2.85	1.66	2.74	1.34
Non Food Grains	3.77	1.86	2.31	0.54
All Crops	3.19	1.73	2.56	1.02

Source: Government. of India, *Economic Survey*, 2001-2002, 2002-2003

If we compare the agricultural productivity of 1980s with 1990s ,we again find that as compared to the 1980s, during the 1990s , agricultural productivity as well as yield per hectare was declining as shown in the **Table** 3.

Table 4: Recent Growth of the Indian Economy

(Percent per annum)

	Eighth Plan	Ninth Plan
Agriculture	4.69	2.06
Manufacturing	7.58	4.51
Services	7.54	7.78
Total	6.68	5.35

Source: Government of India, *Planning Commission,* Tenth Five Year Plan Document

Data published by the Tenth Five Year Plan document shows that the growth of agriculture & manufacturing sector is declining whereas service sector is showing a marginal improvement. During the Ninth Plan period, Indian Economy grew at the rate of 5.35% per annum, whereas during the period of Eighth Plan, growth was comparatively higher pegged at 6.68% per annum.

A state- wise picture, as given in **Table** 2, shows that own account enterprises(OAE) have not grown at the similar rates as the establishments across states. In fact, the ranks are quite different for the two categories. The annual exponential growth rates of OAEs during the period 1990-98 were positive in Assam, Haryana, Kerala, Maharashtra, Orissa, Punjab, Rajasthan & Uttar Pradesh and negative in Bihar, Gujarat, Karnataka, Madhya Pradesh and Tamil Nadu. The annual exponential growth rates of establishments were positive in Assam, Bihar, Haryana, Kerala, Madhya Pradesh, Orissa, Punjab & Tamil Nadu and negative elsewhere in this period. State-specific employment data shows a close relationship between growth of enterprises and growth in employment. This depicts a close relationship between growth of enterprise and growth in employment. A simple correlation coefficient between enterprise growth and employment growth is 0.67, suggesting that these enterprises can be fairly labour-consuming. The elasticity of employment with respect to the growth in the enterprises was 0.93 during the 1980s and 3.03 in the 1990s. The large difference between these two numbers is somewhat inexplicable.

If we analyze the percentage of agricultural exports to the total exports, Tenth Five Year Plan documents highlights that, its percentage share was 18.2% in 1998-99, which came down to 15.2% in 1999-2000;and further to 13.5% in 2000-

01. Similarly, percentage of agricultural imports to total imports was 6.9% in 1998-99. The respective figure for 1999-2000 and 2000-01, was 5.8% and 3.7%.

From the above discussion and analysis, the following conclusions can be drawn. First the period of the 1980s showed a better performance of this sector in comparison with the period of 1990s in terms of growth of enterprise and employment and agricultural productivity. This implies that the overall performance of the economy in the latter period had minimal or no origins in this sector. An annual increase of 0.97 percent in employment is lower than the rise in the rural work force. During the period of 1990s, the rural non-farm sector was found to stagnate or shrink which was not the case in the 1980s when employment grew at a slightly higher pace than the labour force. Thus, the agriculture sector in rural Indian economy needs to be supplemented with an additional sector that should be employment-friendly and can be a catalyst for spurring rural economic growth. Rural Tourism definitely is the answer to the problem.

NEED FOR NON URBAN EMPLOYABILITY IN INDIAN TOURISM GROWTH

Travel & Tourism sector in India contributes INR3,680.4bn (US$79.6 billion) or 8.8% of the total GDP in India in the year 2011. The data reveals that the tourism sector supports 37,655,000 jobs (7.5% of total employment) in 2011 (*Travel and Tourism* 2011 *World, WTTC*, 2011). As per the World Travel & Tourism Council estimates, tourism contributes almost US$6 trillion to the global economy, or 9% of global gross domestic product (GDP) in 2011 (*Travel and Tourism*, 2011; *World, WTTC*, 2011). The sector supports 260 million jobs worldwide (100 million of whom work directly in the industry). The WTTC has identified India as one of the foremost growth centers in the world. Tourism in India is the third largest net earner of foreign exchange next only to garments and gem and jewellery industry. India's share in the total global tourist arrivals and earnings remained quite insignificant at 0.52% of the world arrivals and the percentage of share of tourism receipts for 2006 was 0.90% considering the fact that Year 2006 has been rated as a highly successful year for tourism in India in terms of high foreign tourist arrivals and the positive growth rate (*Report of the Steering Committee on Tourism for the Eleventh Five-Year Plan*, 2007-2012).

The study further explores the quantitative forecasted human resource requirements of the tourism sector in the country and thereby studying the current employability scenario with respect to the gap between demand and supply with a view to interpret the gap fulfillment through the local communities of the non- urban tourism prospective destinations.

The WTTC data on Travel & Tourism estimates the direct employment by the sector at 24,974,000 jobs (5.0% of total employment) in 2011, which is forecasted at 30,439,000 jobs (5.2%) by 2021 as shown in the **Table** 5. In terms of the total contribution of Travel & Tourism to employment, including jobs indirectly supported by the industry, the figure is estimated at 37,655,000 jobs (7.5% of total employment) in 2011 that is forecasted to grow to 47,480,000 jobs (8.1%) by 2021 (*WTTC* : India, 2011). The current scenario puts the employability at 5% or one in every 20 direct employment created by the tourism sector and in terms of considering the total employability of the sector at 7.5% , the figure would be one in every 13.3 jobs.

Table 5: Tourism Contribution to GDP and Employment

	Direct Contribution to GDP (US$ bn)	**Direct Contribution to Employment** ('000)
1990	10.987	13960.9
1991	11.066	15203.4
1992	11.548	17688.4
1993	11.591	17686.5
1994	12.975	17701.7
1995	14.619	17617.6
1996	15.726	17517.3
1997	17.628	18302
1998	18.659	18755.3
1999	20.337	19175.2
2000	22.879	23549.5

2001	18.742	19930.3
2002	22.401	21920.2
2003	25.344	23119.1
2004	26.486	23334
2005	23.716	22182
2006	26.487	24477.4
2007	28.942	23555.2
2008	31.33	25667.1
2009	31.597	24644.4
2010	33.295	24143
2011	36.192	24974.9

Source: Travel and Tourism:India(2011); World Travel and Tourism Council, available online at http://www.wttc.org/site_media/uploads/downloads/india2011.pdf, Accessed on June 6, 2011

The trend for the Indian Travel & Tourism's total contribution to the GDP and employment over the two decade has been on the constant rise as shown in **Graph** 1 & 2.

Graph 1: Travel & Tourism -Total Contribution to GDP (2011 US$ bn)
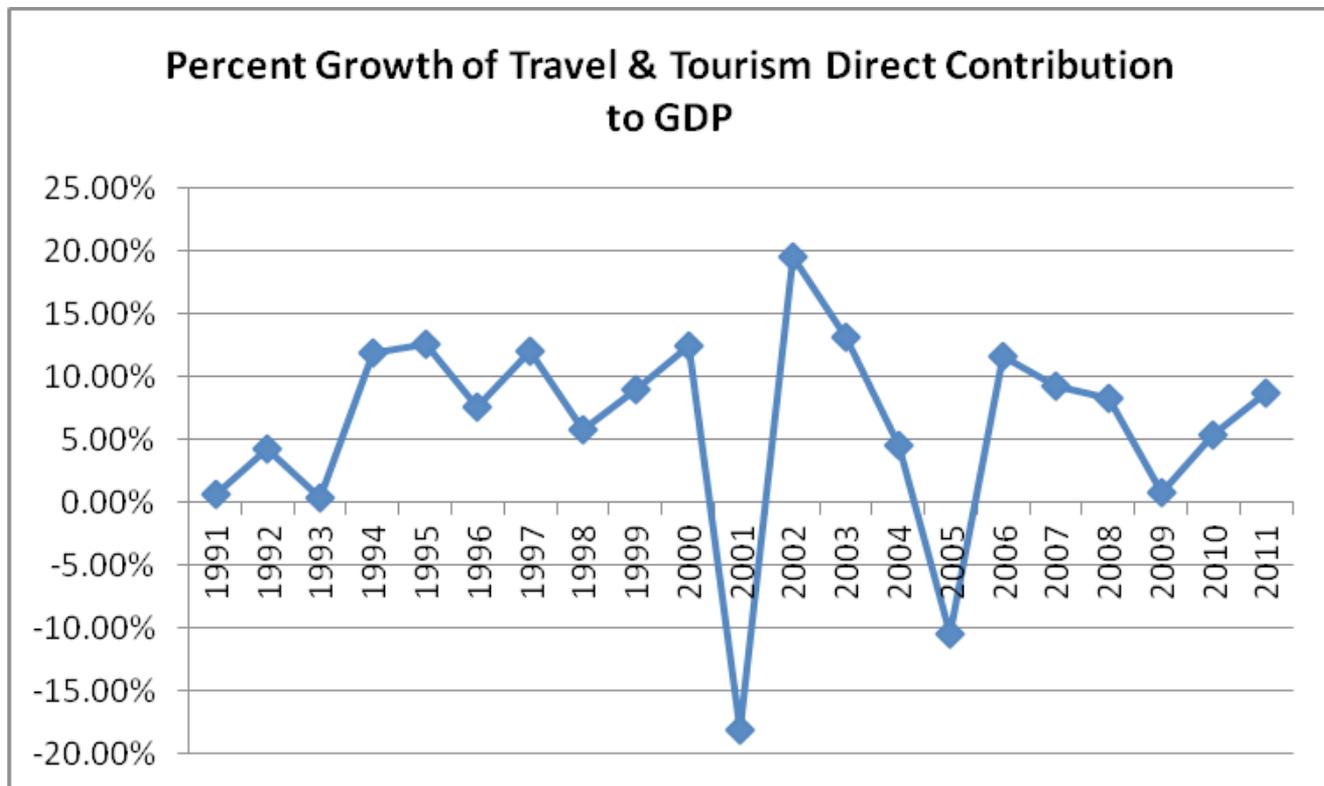
Source: WTTC Economic Data
http://www.wttc.org/research/economic-data-search-tool/, Downloaded on February 6, 2012

Graph 2: Travel & Tourism- Total Contribution to Employment ('000)

Percent Growth of Travel & Tourism Direct Contribution to Employment

Source: WTTC Economic Data
http://www.wttc.org/research/economic-data-search-tool/, Downloaded on February 6, 2012

Based on the above data and trend, we can see that the Travel and Tourism's contribution to GDP although is growing at the rate of 6.18% a year , but the Travel and Tourism's contribution to employment is not keeping the pace as it is growing at an annual figure of meager 3.11%. It is evident that generating employability and improving the quality for more than a quarter of population living below the poverty line today has become imperative for India to accelerate its economic growth. *N. Vanhove* (1980) in his research paper at the First World Congress of Social Economics, considers both the primary, direct effects of tourism on employment, and the secondary effects, composed of both indirect and induced employment. Tourism is considered in the context of economic base analysis and the employment multiplier is derived from this analysis examined together with the income multiplier. The U. N. Report (1999) for the Human Resource Development Requirements of the Tourism Sector in India agrees that the most significant feature of the tourism industry in India is its capacity to generate large-scale employment opportunities. Further it recommends quantitative and qualitative build-up of human resources to meet the upcoming surge in demands.

India has a distinct advantage as a vast reservoir of skilled manpower coupled with huge regional disparity, greater poverty in non-urban areas and above all greater migration of population to metropolitans and bigger cities. The tourism sector, displaying the multiplier effect, can be the best instrument for growth of neglected, remote and backward areas as well as factor for equitable distribution across the country.

There are number of studies that highlight the important role tourism can play in development, describing the potential benefits in purely economic terms. In contrast, we forget to focus on the positive effects that tourism can bring to quality of life in rural and underdeveloped areas, including a greater "sense of place" for rural / underdeveloped areas residents, an upgrading of local cultural facilities, or an enhancement of regional conservation efforts. Frequent mention is to be made about different strategies employed in rural tourism, including heritage tourism, nature-based tourism/ecotourism, and agri-tourism.

Considering the overview as per the Market Pulse report published by the Ministry of Tourism (*A Market Pulse Report,* 2004); Indian tourism sector is urgently required to drastically close the gap between existing supply and expected radical increase in annual demand of human resources in a very near future. There is direct relationship of tourism growth with increased employability by the sector. The local communities hold the key to the future growth of Indian tourism.

The 12th Five-Year Plan (*Report of the Working Group on Tourism,* 12th Five-Year Plan, 2011) also looks forth to synergize tourism for poverty reduction as well as to develop high skills for the sector to grow considerably. It is worthwhile to look and emulate the successful stories of tourism growth through investments and vigorous participation of local communities in successful tourism- rich economies like Malaysia, Thailand, Jamaica, etc.

CONCLUSIONS

Rural India needs an all-round development for not only reducing rampant poverty, boost sagging global agricultural competitiveness, harboring increased rural economic activities; but also towards building the strong economic growth for the country by creating and supplementing Indian agriculture with the tourism growth. Servicing the tourism sector with skilled manpower becomes imperative and foremost challenge for the 12th Plan period (*Report of the Working Group on Tourism*, 12th Five-Year Plan (2012-2017) along side the development of more decentralized and non-urban tourism destinations.

The various Plans however not only missed on generating an apex team of frontline tourism professionals who could induce directions and guidance in this regards; but also evinced no interest in creating a structured and systematic human resource management plan-outlay for Tourism through involving local communities in a rural setting. Above all, the policy planners should look forward to spur innovations for developing local communities' preparedness for the tourism sector by focusing on certain suggestive core strategies for Tourism in India as an instrument for growth of underdeveloped and rural areas. This should include following items, interalia:

1. *Having a defined rural / pro-poor tourism development policy*: To chalk-out the rural / underdeveloped areas equitably all across the country, defining of rural tourism circuits, inducing incentives and investments

2. *Identifying current and future skills and training needs:* By developing an industry training strategy, designing and developing training programs, establishing occupational and program standards, promoting industry training and recruit trainees, promoting careers in tourism, marketing and promotion of programs to employers, promoting industry participation and engagement in training opportunities.

3. *Establishing training and development trust funds:* Community-based and community-driven, these trusts to be designed to put decisions about local tourism development in the hands of the communities themselves on public private partnership with the government regulators.

4. *Focusing on the youth:* By creating opportunities for youth locally by adopting a multi-disciplinary process with regard to career development opportunities, and removing cultural and social barriers that can prevent young people from working.

5. *Development for local communities to tourism growth:* Establish occupational skills capacity building activities for tour operators, guides, accommodations management, cuisine preparation and transportation

6. Dovetail training programs and methodologies to create sustainable tourism products and services

7. Identify in consultation with NGOs, UN Organizations, etc. for at least one pilot project in each identified rural / underdeveloped areas for all states. (*Mehdi*,2012)

The rural India holds the key to robust economic development, poverty reduction, employment generation and reduction of regional imbalances and disparities. The future does belongs to the rise of new economic powers , India being tom-tomed as the favourite. What is required is to operationalize a systematic overall development plan with twin goal of employment and growth. Fusion of tourism sector with the rural economy can bring a win-win situation for the policy makers as well as the rural poor. .

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THE LAND QUESTION AND JAWAHARLAL NEHRU URBAN RENEWAL MISSION

Piu Chatterjee*

ABSTRACT

The mission statement of JNNURM states that the aim of the mission is to encourage reforms and fast track planned development of identified cities. The focus points of the mission are efficiency in urban infrastructure and service delivery mechanisms, community participation, and accountability of Urban Local Bodies towards citizens. The paper argues that a project of the scale of JNNURM would require huge tract of land. However, the mission leaves aside the question of arranging sufficient land. A convenient option of the concerned authorities is to make land available by cleaning up slum lands which have been the home to pauperized rural populace who migrate to cities. The objectives of the mission also fail to comprehend that land is a very important resource with regard to the economy of the urban poor and utmost for their survival. This puts a heavy strain on urban land and other resources which are increasingly freed from less productive uses such as small scale manufacturing or housing for the poor and deployed for the purpose of profiteering. The paper concludes that issues of accessibility of land for urban poor have not been properly addressed in the mission and this might emerge as the faultline between different set of stakeholders.

Keywords: Geographic Information System (GIS), Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Liberlaization, National Common Minimum Programme (NCMP), slum, Urban Infrastructure and Governance (UIG),Urban Land Ceiling and Regulation Act (ULCRA).

INTRODUCTION

India has undertaken significant reforms in phases starting from the benchmark year of 1991. However, initial reforms were in the economic system of India which actually started around 1985 with substantial reduction in external tariffs for capital goods imports. Interestingly, discussions and debates on reforms in India almost pre-suppose as if the reform by definition is economic reform. It needs to be comprehended that economic reforms in many cases depend on reforms in the administrative and judicial systems *(Raychaudhuri, 2012)*. The example of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is such a kind of reform that aims at restructuring different types of urban reforms and processes and decisively modify urban administrative systems. However, the central question is how far this reform has increased the welfare of the common individuals in India? After all the ultimate objective of reforms are intended towards raising the quality of living and economic well-being of people (*Government of India,* 2005). Crucial thrust of reforms like Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is to raise the growth rate of India's per capita income by generating high Gross Domestic Product (GDP) from cities and turning urban areas as highly productive engines, assuming this will take care of the welfare and social issues in the cities.

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It is important to understand the background of the launch of a reform agenda like Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in India. It all started with the embracing and implementation of liberalization policy for the country. Nevertheless, the underlying philosophy of India's economic liberalization of 1991 was to allow markets to function more extensively in as many sectors as possible. The consequence of economic liberalization has been less governmental control in different spheres of production and distribution. The reforms were primarily aimed at signaling gradual withdrawal of the government from direct or indirect control as well as participation in the production and distribution of goods and services in the economy. The idea and belief was that markets should be given its due role to play and the governments role should be clearly to oversee that the markets function as competitive as possible (*Raychaudhuri,* 2012). The liberalization policies adopted by the government has given impetus to urbanization and the share of urban population to total population has increased manifold times. This is due to the generation of economic and employment opportunities in the cities. Consequently, the urban areas have a high contribution to Gross Domestic Product (GDP).

Nevertheless, the high urban productivity would depend upon the availability and quality of infrastructure services. Urban Renewal Mission was launched with the aim that the reform process would focus on providing smooth infrastructure services in cities. Cities in this case were being viewed as Generators of Economic Momentum (GEMs) and it was anticipated that lack of infrastructure might turn into the bottleneck for the growth of cities. The cities were to be made competitive to attract the best foreign investment in the country with the help of the reform process under the banner of Jawaharlal Nehru National Urban Renewal Mission (JNNURM). Thus, the renewal programme launched on a wide scale in the country was a huge city modernization scheme with a positive economic motive (*Government of India*, 2005)

JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL MISSION (JNNURM)

The mission statement of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) states that the aim of the mission is to encourage reforms and fast track planned development of identified cities. The focus points of the mission were efficiency in urban infrastructure and service delivery mechanisms, community participation, and accountability of Urban Local Bodies (ULB)s/ Parastatal agencies towards citizens (*Government of India* ,2005)

Like in other countries, growth story in India is linked with the associated urban reforms. The Urban Renewal Mission is a vibrant and massive urban reform in India. Under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the Union government propose inventive scheme for providing assistance to state governments and Urban Local Bodies (ULB)s in selected 63 cities. These cities include cities with over one million population, state capitals and a few cities of religious and tourist importance. The main purpose of such a reform is as stated by the government, is to mould urban governance in these areas, facilitate urban infrastructure and provide basic services to the urban poor. The mission is comprised of two sub-missions. First, sub-mission is for urban infrastructure and governance. This is to be administered by the Ministry of Urban development (MoUD). Second sub-mission is on basic services to the urban poor. This is to be administered by the Ministry of Housing and Poverty Alleviation (MoHUPA). The common components under the scheme and the sub-missions stated above includes urban renewal, water supply, sanitation, sewerage, solid waste management, urban transport, slum improvement and rehabilitation, housing for urban poor, civic amenities in slums and so on. Till March 2013, the total amount funds released for Urban Infrastructure and Governance (UIG) has been to a tune of Rs. 61,230 crores. However, for the Basic Services for the Urban Poor (BSUP) component, the total amount of fund released till March 2013 has been 16,356 crores (*GoI* 2012).

The urban renewal mission document has certain necessary conditionality for disbursement of fund. Firstly, funds accessed for Jawaharlal Nehru National Urban Renewal Mission (JNNURM) cannot be used to create wage employment. JNNURM assistance is also not available for health and education in cities of urban India. Secondly, land costs for the projects specified in the scheme cannot be financed under the JNUURM scheme. This has to be externally funded. Thirdly, housing to the poor are not provided free of cost under the mission. Fourthly, privatization or Public Private Partnership (PPP) is the preferred mode of implementation of the projects. Fifthly, a reasonable user fee is to be charged from the urban poor for services. The idea behind this agenda is to recover at least 25 percent of the project cost (*Government of India,* 2005). The above mentioned aspects of the urban renewal mission points out at the agenda behind JNNURM. Scholars working on analyzing various aspects of reforms in the country have firmly emphasized from the above facts that the mission seeks to set in motion a completely market- driven urban development process. The Urban Renewal Mission is the culmination of a process of neoliberal urban reforms that has been going on since the launch of the mission. A bird's eye view at the reforms proposed under the mission makes it clear

that these are designed in such a way that it ought to benefit a minimal population which includes local and international investors and guarantees will make life worse for the majority of the urban residents (*Mahadevia*, 2006). Further, the question of land has been left out as the mission document fails to mention how land would be made available for the projects under the mission.

The urban renewal mission accrues and consents to the concept of modernization originating from Eurocentric perspective. The idea behind the urban renewal projects have been city beautification and cleaning(by removing unclean 'objects' like slums), which ultimately attract foreign investors to the city for investing in the city and generating economic surplus from such investments. This ultimately leads to the growth of the brand *'globalized India'*. The emergence of the brand 'globalized India' will be created at the further peripheralization of millions who would be forced to bear the cost of ensuring profits for a minuscule population of political and economic elite. This might be justified under the banner of national or public interest. However, the irony is that the victims of such processes are referred as beneficiaries. Unfortunately, an urban reform process of the scale and intensity of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) follows the same pattern and paradigm (*Mahadevia*, 2006).

THE LAND QUESTION

The land question undoubtedly needs to be central for any urban renewal scheme of the government of India. First, urban renewal incorporates restructuring of the usage of land and second a huge proportion of the population of this country is still dependent on this finite resource for livelihood and various other essential and survival activities of human beings depend on availability of sufficient land. Land is a fixed commodity . This makes it easy for speculation and consequently for profiteering from it and similarly the results of such speculation are quite in-depth (*Harvey,* 1982). The inequality in India can be traced to the factor of the land-owners vs. dispossessed. Initially, the government had functioned as the regulator of inequality resulting from transaction relating to land. This was through the subsidies to urban poor, higher taxes to industrialists on purchasing land, providing land to urban poor at subsidized interest rates of loans. In the current times, the government agendas clearly point at profiteering from commercializing the urban land. Therefore, the government functions more like a "speculator' rather than as a 'facilitator' of the urban poor (*Shaw*, 2004). This is being accomplished through policy like 100% Foreign Direct Investment (FDI) in the real estate. An urban reform of the scale of JNNURM is functional by spatially restructuring the cities and therefore the built up areas. This kind of spatial restructuring of cities would mould the use, availability of the resource of land. JNNURM deals with the issue of land in such a way that it will benefit only the richer segment of the society.

Land Question and Urban Land Ceiling and Regulation Act

Land is a very important resource with regard to the economy of the urban poor. It is the base resource which helps them to construct their own dwelling even outside the formal market. It helps them to earn by generating their meager income from small home based enterprises at the individual level. It also serves various other functions. However, JNNURM seems to completely neglect this aspect. Its various reform measures aim at commercializing and profiteering from the land which is such a crucial resource for a major segment of the population. One of the mandatory reforms under the state government is the repeal of Urban Land Ceiling and Regulation Act (ULCRA) which gives a free hand to the builder lobby to capture vast and huge tracts of land in the metropolitan cities for building commercial and residential complexes. This will drive the poor out of the land market. The government has also agreed on a Foreign Direct Investment (FDI) in real estate. With concomitant Urban Land Ceiling and Regulation Act (ULCRA) being repealed, the stage is clear for the entry of giant multinational real estate firms to exploit land in Indian cities for business purposes (*Patkar* and *Singh,* 2007).

Further, with the repeal of Urban Land Ceiling and Regulation Act (ULCRA) there is no other government measure through which affordable land can be made available to the urban poor. Initially, when Urban Land Ceiling and Regulation Act (ULCRA) was applied, it raised the prices of land in cities like Mumbai because a lot of land had got stuck up in litigation. This made people from various fields to demand its repeal. However, currently peoples' movement for housing rights have now begun asking for the strengthening of the Urban Land Ceiling and Regulation Act (ULCRA) rather than its repeal. If the land tenure issue does not get addressed which is the case with nearly half the population in the mega cities of India like Mumbai, Kolkata and Hyderabad, their access to basic services would also not get addressed. In that case , the Basic Services to the Urban Poor (BSUP) submission in the urban renewal mission may not help the poor much. (*Mahadevia,*2006; *Sami*, 2011).

Under JNNURM, land costs are not to be covered. Arranging land for projects will be a critical issue to address. There is suspicion in various quarters that this would obviously be made available by freeing up slum lands which have been the home to many for the last several years. One should also note that Urban Land Ceiling and Regulation Act (ULCRA) was implemented at a very fast pace in the states of Jharkhand and Orissa where the tribal population is very high (*GoI*, 2012).

Property Title Certification

Property title certification and computerization of land and property is a reform mentioned at the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). This strikes at the very root of the process through which the poor have so far staked their living, working and claim on the city. The land has been used by them for residential and occupational purposes through a variety of informal networks and cleavages. Property title certification is a clause which is mentioned under the optional reforms and is common at the state level and at the Urban Local Body (ULB) level. With standardization, classification and computerization of land titles, the consequences expected is that while a number of informal forms of title are going to be excluded from the classificatory scheme of the state, the large player with interest in land will have all the information about urban land at their disposal with the help of technology, thus making property transactions easier and cost effective (*Sami*, 2011). The urban poor have always used discarded, unused, less sophisticated and environmentally fragile lands that have not been abandoned by the superior class. They have used those kind of areas which are vacant parts of land near railway stations, drainage lines, near industrial areas, near garbage grounds for their residential and livelihood generation purposes. Information about the availability of this kind of vacant, unused land is usually passed on to them by their acquaintances by word of mouth. With the knowledge of such kind of land , they turn discarded land in usable and advantageous form which are used by many poor people for livelihood generation and residential purposes. Once computerization of information of every vacant land of the city is finalized with the help of Geographic Information System (GIS), the land would be under government and private sector purview even before it comes to the knowledge of the urban poor. Further, with the trend of using land for surplus generation in the era of globalization, the usage of land for informal housing by the weaker segment of the society would seem futile and very unprofitable by the government agencies. The private sector would therefore eye on any such kind of land for surplus generation and with the motive of earning profit (*Mahadevia*, 2006).

The Sub-Mission of Basic Services

The JNNURM is expected to convert select cities into the world class urban centers, foremost by providing infrastructure services to all economic classes. The sub-mission for basic services that fall under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) would benefit the poor only if they have security of tenure and their settlements and dwelling units get connected to these networks (*Mahadevia*, 2006). The question of security of tenure for housing of poor is generally approached at two different levels. First, security of tenure provided at the sites where the urban poor have been living for many years, mostly unregistered public lands. Secondly, security of tenure where the urban poor are relocated at, after their displacement for development projects or at other developed sites. The land question becomes even more central when the intention is of making affordable housing with basic services available for the poor. Since the mission does not address this question, it is a tantalizing question to ponder how a city could become world class without addressing the needs of half of its population. On the contrary, the mission will instead encourage process that would displace the poor rather than include them in the process of city transformation. JNNURM is expected to convert select cities into ' world class' ones (*Kundu* and *Samanta* , 2011). The term 'world class' is now being used more as a paradigm for urban development signifying cities with international standard infrastructure particularly roads, airports, public transport, open spaces and real estate projects. All such projects consume huge tract of land and the land would obviously come from taking away informal lands used by the urban poor to subsist in the city.

Given the trend of displacement of the poor in the last decade particularly from the mega cities it is necessary to take a closer look at the project of Jawaharlal Nehru National Urban Renewal Mission (JNNURM). The rationale for the mission is based on the exception that overall reforms would lead to high economic growth. Cities thus covered would in turn act as 'growth engines' for the entire economy and urban areas would contribute highly to Gross Domestic Product (GDP). It is important to understand whether the Urban Renewal Mission would address the burning issue of the urban poor's access to shelter and basic services. Without shelter and access to basic services, it is not possible to reap the benefits of the high class infrastructures developed by Jawaharlal Nehru National Urban Renewal Mission (JNNURM) (*Mahadevia*, 2006).

Jawaharlal Nehru National Urban Renewal Mission (JNNURM) provides a provision of basic services to the urban poor including security of tenure at affordable prices. While the former may be achievable, it is not clear how the latter would be achieved particularly as there is no mention of how land prices would be made affordable. Certainly the market is not expected to do so as envisaged under the mission because of the repeal of Urban Land Ceiling and Regulation Act (ULCRA) and the opening of real estate market to foreign investment. The market in fact has lead to spiraling of land prices excessively. The most important fear is that the Urban Renewal Mission would lead to more slum demolitions and displacement as it has been happening with great intensity across cities. Further, the relocation and rehabilitation tasks of project affected people are extremely complicated in the Indian society. This along with an official policy of non-recognition of slum dwellers who are squatting or living in unauthorized settlements would make the situation more precarious (*Sami,* 2011).

On the other hand, another clause in the mission is that land costs are not be covered in project costs. The crucial question that arises then is how the city governments would make land available for the projects of the mission. Most likely by freeing lands from slums. This is a simple logic which gets manifested very vividly in the metropolitan cities of India in the form of displacement of inhabitants of slums from their homes of several years.

However, the JNNURM reports on the targets achieved by the state government in providing security of tenure to the urban slums in the form of guaranteeing property titles reveal something interesting. Till March 2012, no state has been able to guarantee property titles to the slums of any cities (*GOI* , 2012).

Earmarking Developed Land (EDL) For Economically Weaker Section (EWS) and Lower Income Group (LIG) Category

One of the optional reforms on Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is earmarking at least 20 to 25 percent of developed land in all housing projects (both public and private agencies) for Economically Weaker Section (EWS) / Lower Income Group (LIG) category EWS. (*EWS is officially defined as a household with a family income below 2100 Indian Rupees. LIG(Low Income Group) is officially defined as household with a monthly income between 2100 and 4500 Indian Rupees.)* This reform is optional at the State level, Urban Local Body Level (ULB) and at the Parastatal Agencies level. This reform is aligned with the goal of ' Affordable Housing for All' in the National Urban Housing and Habitat Policy, 2007 (*NUH* and *HP*). The National Urban Housing and Habitat Policy, 2007 (*NUH and HP*) mandates reservation of'10-15 percent land in new public/private housing projects or 20-25 percent of Floor Area Ratio (FAR) (whichever is greater) for Economically Weaker Section (EWS) /Lower Income Group(LIG) housing through appropriate legal stipulations and special initiatives *(Kundu and Samanta,* 2011).(*FAR is the ratio between the area of land parcel and the total amount of floor space which can be built on it*).

Jawaharlal Nehru National Urban Renewal Mission (JNNURM) points out that of the total housing shortage in a city, a large proportion is among the Below Poverty Line (BPL). The reform assumes that Earmarking Developed Land (EDL) in all housing projects will reduce housing shortage among the Economically Weaker Section (EWS) and Lower Income Group(LIG) households by increasing supply of land for housing the poor. Further, Earmarking Developed Land (EDL) considers that housing is not just about shelter but also a place from where poor make their livelihoods. Legitimate housing will enable poor to earn a legitimate living in the city. The ultimate objective of Earmarking Developed Land (EDL) is to increase the supply of affordable land for housing the poor with adequate access to basic services. However, Jawaharlal Nehru National Urban Renewal Mission (JNNURM) confirms that Earmarking Developed Land (EDL) will by itself not be sufficient to ensure housing for the poor. Housing for the poor will require convergence of two other important components. First, effective governance and second, livelihood promotion. The component of effective governance systems can both enable poor to access housing as also be part of the planning ,design and construction processes. The second component of livelihood and income generation assumes that housing for the poor is huge construction activity and has potential to trigger the local economy by providing jobs to many skilled and unskilled workers. Interestingly, only construction can be considered for this purpose as creation of any kind of wage employment under JNNURM is an inadmissible component. On the other hand livelihood should be considered along with relocating urban poor to developed lands as economic source is important to maintain living in the concrete houses (*Kundu and Samanta,* 2011).

Earmarking Developed Land (EDL) reform needs to be jointly implemented by the Urban Local Bodies (ULBs) and relevant state level institutions such as the Land and Revenue Department, Town and Country Planning Department

and other parastatal agencies. With severe dissonance among India's institutional arrangements and lack of coordination among the institutions, this is a difficult proposition. For successful implementation of the reform, the crucial role of the State agencies will be to help create a policy environment by enacting appropriate legislative and policy decisions. How far this is achievable remain a distant guess.

The concept of relocating urban poor to a developed land has failed in several circumstances. The case of Navi Mumbai in India proves the point to a good extent. Navi Mumbai which was to cater to the housing needs of the urban poor in the city, constructed low income settlements in the heart of a main node of the city, in Sector 2 of Vashi. A socio-economic survey conducted by CIDCO (Cities and Industrial Development Corporation) found out that most of the population living in the tenements in 1995-96 did not belong to the Low Income Group (LIG) or Economically Weaker Section(EWS). Only 8.5 percent of the population residing in these structures belonged to the Lower income Group (LIG). It has been mentioned that the proportion of poor people residing in such housing is low because huge market pressures have forced a quick sell off to higher income groups and a negative down filtering has occurred. The city of Navi Mumbai has also been the victim of negative filtering. The low income houses that were build for the urban poor were easily sold to the middle income group by the poor. The urban poor faced with the twin case of disadvantageous economic condition and comparatively high selling prices of the houses were forced to quit from the low income structures. The middle income group at the individual level made necessary changes in the housing structures and therefore found themselves a comfortable habitat at reasonable prices. Therefore, providing developed land in housing projects to the urban poor does not appear to be a viable solution.

THE NEO-LIBERAL AGENDA AND JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL URBAN MISSION (JNNURM)

Needless to say the reform agenda of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is in line with policies of liberalization, privatization and globalization initiated in the early 90s. The politics of globalization depends among other things on refashioning and reforming cities in order to make them investment friendly. Major cities of the third world are thus sought to be delinked from real domestic priorities and positioned as nodes in the global circulation of finance and services. This puts a heavy strain on urban land and other resources which are increasingly freed from less productive uses such as small scale manufacturing or housing for the poor and deployed for high tech modes of accumulation and consumption. The entire urban space becomes critical for the exploitation for the purpose of profiteering. Land to be used for low productive uses seems futile for this case, when the same land can generate more surplus profit (*Mahadevia,* 2006).

JNNURM is the work of a technically savvy, internationally exposed, reform-oriented policy network that has come into existence in the last 20 years and have very little exposure to the real condition of Indian cities. The vision of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) targets only a minor population of the country who would be benefited from Jawaharlal Nehru National Urban Renewal Mission (JNNURM). This urban renewal process takes on a narrow framework and understanding of policy making, ignoring the majority of the country and promoting a very exclusionary ideology. Mostly, Jawaharlal Nehru National Urban Renewal Mission (JNNURM) has been significant in a particular kind of spatial restructuring of cities which includes the urban higher class and middle class but excludes the urban poor from the usage of an important resource like land and overall the city. Further, it changes the way the cities are to be managed and looked.

CONCLUSION

One must realize that land is a state subject and under the jurisdiction of the state, however, policy decisions at the central level have impact on state subjects like land. There is need to understand the use value of land as put forward by famous scholar *David Harvey*. He takes on from Karl Marx's Capital and states that land together with labour constitute the original sources of all wealth. In its virgin state, the land is the universal subject of human labour, the original condition of all production and the repository of a seemingly infinite variety of potential use values spontaneously provided by nature. Nonetheless, private persons under the laws of private property can acquire monopoly powers over definite portions of the globe (*Harvey,* 1982). JNNURM is not clear on how this finite resource which cannot be significantly augmented or diminished through human agency will be utilized positively for the urban poor by the reform process. However, the reform process would demand land for its projects but it would not finance land cost. The government therefore turns a blind eye to the question of access and availability of land for the urban poor.

The rationale for JNNURM was stated in the National Common Minimum Programme (NCMP) of the then Government of India. The National Common Minimum Programme (NCMP) attaches the highest priority to the growth and development, expansion of physical infrastructure (*Government of India*,2005). The proposal of comprehensive programme of urban renewal and paying attention to the needs of the slum dwellers was put forward in the form of Jawaharlal Nehru National Urban Renewal Mission (JNNURM). However, the project ignores the plight of the slum dwellers who are the vulnerable dwellers. The government is also committed to meet the Millennium Development Goals, and aims to augment investment in the urban sector. But the urban reform which does not take into consideration fundamental issue of land to urban poor cannot expect to succeed and sustain.

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A TALE OF TRANSITION – EVOLUTION OF CREDIT RATING AGENCY INDUSTRY AMIDST A DECADE OF CRISIS

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ABSTRACT

During the last decade, the global financial regulators have witnessed some large multinational organizations collapse and onset of massive bankruptcy. The major failure of giants like Enron, Lehman Brothers and AIG, to name a few, was never anticipated before it struck unceremoniously. The aftermath of Credit Crisis in 2008 and Subprime lending turmoil in 2009-10, witnessed the evolution of rating agencies from a mere egg shell of allocating credit ratings to policy consulting agendas. More recently, the rating agency Standard & Poor stunned the world by stripping the U.S. government of its prized AAA bond rating. The downgrade of long-term U.S. Treasury threatened to spread panic and chaos in financial markets. This drove up U.S. interest rates, pushing the dollar down, scaring investors away from stocks and into that traditional refuge for the investor: gold. The purpose of this research paper is to understand the evolution of credit rating industry amidst changing regulatory cycle of reforms in the last decade with reference to some major caselets including both developing and developed nations.

Keywords: American Tax-Payer Relief Act, Credit Rating Agency Industry, Dodd-Frank Act, Subprime Lending.

INTRODUCTION

The Process of Credit Ratings

A credit rating is an assessment as to the likelihood of the obligor's default in repayment of lent funds. The higher the rating (e.g. "AAA"), the less likely that a default will occur. Credit ratings are forward-looking, summarised opinions about a borrower or a security's creditworthiness. These ratings recapitulate the conclusions of a rating agency's credit analysis, which its analysts explain in a published report. Such reports are commonly called a **Credit Scorecard**. There are three major rating agencies, which account for the oligopolistic nature of the industry across the globe: *Standard & Poor's Ratings Services Inc., Moody's Investor Service Inc, and Fitch Inc*. The challenge for a rating agency is to ensure that its methodology properly considers the diverse factors that contribute to a security's creditworthiness in a way that is useful to investors.

It is imperative to understand that ratings are opinions and not recommendations to purchase, sell, or hold any security. In the United States, rating agencies assert that they have the same status as financial journalists and are therefore protected by the constitutional guarantee of freedom of the press. This has traditionally defended them from investor litigation and until recently prevented direct regulation of their operations.

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Credit ratings are aimed at reducing information asymmetries by providing analytical viewpoint on the rated security. In addition, ratings can solve collective action problems of dispersed debt investors by helping them to monitor performance, with downgrades serving as a signal to take action. A credit rating is influenced by the underlying outlook carried by economic environment of the related entity, generally gauged by Country Risk Assessment (CRAS) framework. Credit ratings are typically among the main tools used by portfolio managers in their investment decisions and by lenders in their credit decisions. *Altman Z-score* is the most common credit model used for the purpose.

The Discipline of Credit Analysis

Credit Analysis studies and quantifies credit risk and default point of any organizational credit psychology. The *default point* of any major credit deal is the financial threshold that depicts the breach in the financial payback capability. As the default point is approached, the expected default frequency increases. *Expected Default Frequency* (EDF) is a term which is denoted by a percentage and measures chances that a particular entity will not entertain its assigned credit limit conditions. Both the default point and EDF are inversely proportionate to credit worthiness quotient of an entity. These terms are used widely in credit markets for both the Government bonds and corporate debentures.

Credit Analysis encompasses various financial and strategic techniques to evaluate underlying asset quality. The analysis comprises working on historical financial statements and carrying out fundamental research, advanced ratio analysis, trend analysis and preparation of financial performance index or composite credit score index. On the strategic part, the process includes study of organizational structure, SWOT Analysis, PESTLE Analysis, Peer Review and GAP analysis, Sector and Industry outlook and RISK-MITIGATION landscape.

Traditional Credit Ratings Industry

- Rating agencies originally emerged to assist discrete investors in monitoring issuers in the debt capital markets. They allotted an objective measure of credit quality to debt issues, based on independent analysis of issuer-supplied financial information.

- A look at the origins of credit ratings reveals that the statutory mention of national rating agencies first came into use in 1975 in US, when the U.S. Securities and Exchange Commission (SEC) introduced the concept as part of the amendments to the broker-dealer net capital rule under the Securities Exchange Act of 1934.

- Furthermore, the rating agencies developed as information businesses and contributed by the operation of markets by following market efficiency theory.

- Essentially, credit ratings reduce the ability of one investor to outperform another by making better judgments about creditworthiness.

Situational Context of Credit Rating Agencies in US and Europe (2000-2005)

In the earliest context of rating agencies, the SEC did not formulate any type of substantive regulation. The SEC did not even adopt a definition of Nationally Recognized Statistical Rating Organization (NRSRO). In fact, the only regulation of the credit rating agency market was the NRSRO designation process which was controlled by the SEC. The criterion for NRSRO designation was unclear and the rationale supporting the SEC's decision-making process lacked transparency to a great extent. Additionally, the timeframe for a decision was often very lengthy. The extreme reliance on ratings by market participants and the part that such ratings played in the collapse has resulted in a resounding cautionary call for tougher regulation of credit ratings altogether. The NRSROs have also been criticized for their lack of independent verification of information received from third parties where such information was used to issue ratings for structured finance securities.

Initial Regulatory Regime - *Demise of Enron :"The Elephant Fall"*

The early 2000s witnessed the sudden downfall of several large, prominent, well-rated companies. Some of the more notable, recognizable names included Enron and WorldCom. The demise of these companies caused Congress to focus on the role of the largely unregulated NRSROs and this resulted in *International Organization of Securities Commission issuing Statement of Principles* regarding the activities of Credit Rating Agencies in 2003 and the *Code of Conduct Fundamentals for Credit Rating Agencies, 2004* that highlighted four categories of voluntary principles for rating agencies which are:

- Quality and integrity of the rating process,

- Independence and avoidance of conflicts of interest,

- Responsibilities to the investing public and issuers, and

- Public disclosure of their own code of conduct

The IOSCO Code did not address government regulation of rating agencies or include an enforcement mechanism, though several rating agencies voluntarily developed their own codes of conduct along similar lines.

Post -2005 Mid-Tier regulatory reforms in Ratings Market

In 2006, the U.S. Congress passed the *Credit Rating Agency Reform Act.* The Act required rating agencies to comply with certain requirements as:

- Periodic reporting on activities and the public disclosure of information on laid down standards and policies.

- The act also empowered the SEC to conduct on-site inspections of rating agencies and to take disciplinary action for violations of the law.

Regulation in the European Union

Before 2009, the regulation of rating agencies in the European Union relied largely on voluntary adherence to the IOSCO Code as overseen by the Committee of European Securities Regulators.

Critical Developments leading to Post- Crisis Role: Reformation of Credit Rating Agencies

- In 2001 rating agencies were rating Enron "investment grade" just four days before it went bust. Lehman Brothers, AIG and Washington Mutual had similarly stable ratings right up until September 15, 2008 i.e. till the moment they collapsed.

- The worldwide credit crisis of 2008 was an interrelated series of events that continued to magnify financial mayhem. The crisis encompasses seize-ups in markets for asset-backed commercial paper and auction-rate securities, depressed Treasury bond yields and drove up corporate credit spreads.

- The continuation of Credit defaults lead to Subprime crisis in 2009 with mortgages going bad and Collateral Debt Obligations turning junk.

- Furthermore, the three big rating agencies- Standard and Poor's, Moody's and Fitch- were considered to be the main cause of the financial crisis in European Union in 2010-2011 with sovereign defaults from Greece, Ireland, Portugal and Spain. This eventually lead to high debt to GDP ratio (more than 100% for most of EU nations), which resulted in driving up market rates, prohibiting the countries' access to financial markets and undermining the rescue operations of the IMF and the EU.

Post- 2008 Regulatory Framework for Credit Rating Agencies in US and Europe

Due to the financial disaster in the global commercial centers of the world, fresh need for new regulatory requirements was felt as the crisis ramified. This led to a series of governmental statutory interference in regulatory environment of rating agencies such as:

1. International Organization of Securities Commissions (IOSCO)

While reviewing the role of rating agencies in the structured finance debacle, International Organization of Securities Commissions (IOSCO) revised the Code of Conduct Fundamentals for Credit Rating Agencies in 2008 which included measures like

- Improvement in the quality of the rating methodology,

- Ensuring proper monitoring and control over timelines of ratings,

- Prohibit the involvement of analyst's view in the design of structured securities,

- Increase public disclosures, like periodical review of compensation policies, and

- To differentiate structured finance ratings from others.

2. G-20 Leaders Summit (2009)

During the April 2009 *Declaration on Strengthening the Financial System,* the G-20 leaders agreed that all credit rating agencies whose ratings are used for regulatory purposes should be subject to an oversight regime that includes registration and consistency with the IOSCO Code. They also agreed that rating agencies should differentiate ratings for structured products and increase disclosures. Eventually, the Basel Committee was asked to review the role of external ratings in prudential regulation and identify adverse incentives that needed to be addressed.

3. Regulation by SEC in the United States

In 2009, the U.S. Securities and Exchange Commission (SEC) amended its regulations for rating agencies to require enhanced disclosure of performance statistics and rating methodologies, disclosure on their Web site of a sample of rating actions for each class of credit ratings, enhanced record keeping and annual reporting, and additional restrictions on activities that could generate conflicts of interest.

4. Regulation in the European Union

European Parliament and EU Commission in May 2009 decided that all rating agencies issuing credit ratings in the European Union need to apply for registration to the Committee of European Securities Regulators (CESR) and be supervised by it along with the relevant member state. Credit ratings by rating agencies operating exclusively from non-EU jurisdictions may be acceptable on a case-by-case basis if the oversight framework of their country of origin is deemed to be equally stringent. The CESR also decided to establish a central repository, accessible to the public free of charge, with historical data on the rating performance of all registered rating agencies.

Impact of Dodd-Frank Act, 2010 in repositioning Credit Rating Agencies

In the USA, the *Dodd-Frank Act* (June, 2010), requires regulators to remove from their rules any references or viewpoints pending decisive criteria to determine credit ratings. In June 2011, the Federal Reserve Board in US issued a report to the US Congress reviewing references to credit ratings mainly related to capital adequacy measures for banks, such as risk weight allocation. The Fed also proposed certain amendments to remove references to credit ratings from its capital requirements. It further suggested the use of substitute standards of creditworthiness for capital calculations that relied on external ratings. This was a big blow to imagery of Credit Rating Agencies (CRAs) and thus, an ice-breaking shift was required in the role of CRAs.

Role Evolution of Credit Rating Agencies post-Financial Crisis Era

The Credit rating agencies throughout the world have not only become more objective in their assessment of organizational entities, but also they have made themselves more pronounced and proactive to global incidents. They now follow framework of Incident Analysis, which has lead to their transition as a global whistleblower. Some necessary transformational steps taken by Credit Rating Agencies with stringent implementation are:

- *Improving the quality of rating methodologies*, particularly for structured finance instruments like Collateral Debt Obligations, Credit Default Swaps, and Hybrid Mortgage Instruments etc.

- *Introducing direct government oversight* to replace self-regulation by Rating Agencies.

- *Implementation of Hybrid payer model* (representing both issuer and investor bodies) rather than Issuer-pay model towards rating fee, thus providing more independence in expression of credit opinions.

The role of a whistleblower in financial markets by Credit Rating Agencies was quite evidently witnessed initially in **a** landmark case of **Pakistan Steel Mills Corporation** in 2009-2010**.** The rating agencies not only assigned a clear downgrade but also carried out a new economic growth forecast for the sovereign status of the nation.

Caselet 1: Pakistan Steel Mills Corporation *(Impact in Asian Economy during sub-prime crisis)*

Theme of Caselet – Exposure of faulty economic indicators by Credit rating agencies during 2009-2010

Pakistan Steel Mills Corporation (PSMC) is a good example of Asian economy which is considered better off relative to its peers in recent times of crisis. This organization is a 100% government owned company and the largest steel enterprise in the country. Although being a part of strong Asian economy and enjoying implied support from the national government, PSMC did not live up to the expectations of being a healthy trade counterparty in year 2009-2010. The credit rating agencies iterated ground breaking reasons for PSMC's credit deterioration, which were

- PSMC has been exposed to political instability, with extremely weak financial position reporting around Rs 20 billion losses in 2008-2009, or the first time in nine years. The accumulation of losses was due to less than target production and sales, import of raw material at exorbitant rates and global economic crisis.

- The country risk has been assessed by rating agencies high (*S&P* rating of B- and B3 by *Moody*'s, one notch above implied default). Moreover, the major economic risk to Pakistan's national policy was caused by massive flood in August 2010. This all concludes the heavy impact that economic and political stability has on trade policies.

- Although, the company is the largest public sector undertaking in the industry in Pakistan, yet it had negative trade connotations for corporate deals. At this point, it was for the credit agencies to come out with a substantial analysis for rating purposes and help trading companies to avoid impending default.

Development of New Tools by Credit Rating Agencies

After the financial apocalypse witnessed in the previous years of 2008-2011, the International credit rating agencies have evolved their armor and weaponry to fight fraudulent practices and critical hints of commercial misfit. Some major development in this area has been taken up by *Moody Rating agency* and *S&P*, which have new measures to crack potential threat to sovereign debt ratios:

- A key development by Moody Credit Rating is progress on enhancement of financial forecasting trend software like **Credit Edge and Risk Calc**. Risk Calc is an important model that has default prediction methods for regional private firms. It supports decision-making process for extending loans, managing portfolios and pricing debt securities when there is little available market insight into a firm's prospects, as is the case for middle market credits.

- Another important measure developed overtime is **EDF magnitude forecast.** This calculator measures Expected Default Frequency of entities along with change in default points with respect to their credit ratios like Debt Capitalization (in case of corporate) and Sovereign Debt over Gross Domestic Product (incase of Nationalities).

Caselet 2: American Taxpayer Relief Act of 2012 (US Economy & Sovereign Credit Rating)

Theme of Caselet – Extended vigil over matters of International importance

In the wake of signing of *American Taxpayer Relief Act of 2012*, popularly known as *Fiscal Cliff Bill,* the credit rating agency *Moody* has advised US sovereign to speed up fiscal measures so as to save itself from a rating downgrade.

- The *Fiscal Cliff Bill* that extends lower tax rates on a more or less permanent basis on annual household income under $450,000 with postponement of the Budget Control Act's sequester for two months has been signed by the US President Barrack Obama in January 2013 by an autopen.

- *Moody*'s Rating is of the viewpoint that in order to secure its "AAA" debt rating from its negative outlook, the US sovereign has to take up additional measures to lower US budget deficits and lower the trajectory for a longer duration.

- Meanwhile, the *S&P* has taken an unprecedented action of lowering the US debt rating to AA-plus from AAA, as *S&P* was prompted by the financial calamity in the US to do so.

CONCLUSION

Credit Ratings are a type of information, in the form of independent opinions about the creditworthiness of issuers and securities. They fulfill their role by adding to the mix of information that investors and lenders can use when analyzing and trading securities. The real role of credit ratings in the financial system is to improve the functioning of markets by

reducing information asymmetry between issuers who need funding, lenders who can provide it and the public at large. Credit ratings help to make markets more efficient by putting all lenders and investors on more equal footing, thereby minimizing variations in returns that can arise from differential credit judgments. Moreover, rating agencies sometimes differ in their assessments of a given issuer or security, either because they calibrate their rating scales differently or ascribe greater or lesser weight to different factors in their analyses. Accordingly, the greatest reductions in information asymmetry come from the presence of multiple ratings on a given issuer or security, in combination with other sources of information and independent analysis.

On certain occasions, misuses of credit ratings such as "rating shopping" by issuers, the regulatory use of ratings, and the use of ratings as a substitute for an investor's own analysis, have all contributed to distortions of a credit rating's true role. And when such misuses are widespread, the market may fail to realize the full value that credit ratings can offer. The hope is that greater understanding of what credit ratings really are and what they aim to do can benefit all market participants and create a stronger and more efficient financial system.

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MICROFINANCING: A BIRD'S EYE VIEW

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ABSTRACT

This paper deals with Micro financing which is a general term to describe financial services to low-income individuals or to those who do not have access to typical banking services. Microfinance is also the idea that low-income individuals are capable of lifting themselves out of poverty if given access to financial services. Micro financing helps in achieving sustainable development. In order to attain sustainable rural development and progressive poverty alleviation, the role of Micro financing agencies becomes very important in the context of current scenario. Microfinance has grown rapidly both in terms of outreach and also in the terms of number of service providers. Though, there are enough constrains in its way to become all-encompassing solution to mitigate the problem of credit for the financially disempowered groups.

Keywords: Institutional capacity building (ICB), Microfinance organizations (MFO), Microcredit , MicroFinance Institutions (MFIs), MoRD, NGO , Non-Banking Financial Companies(NBFC),Self-Help Group (SHG) , Swarna Jayanti Grama Swarojgar Yojana SGSY.

INTRODUCTION

Microfinance is defined as, financial services such as Saving A/c, Insurance Fund & credit provided to poor & low income clients so as to help them to rise their income & there by improve their standard of living. Microfinance is a movement whose object is "*a world in which as many poor and near-poor households as possible have permanent access to an appropriate range of high quality financial services, including not just credit but also savings, insurance, and fund transfers.*"

Microfinance is a broad category of services, which includes microcredit. Microcredit is provision of credit services to poor clients. Microcredit is one of the aspects of microfinance and the two are often confused. Critics may attack microcredit while referring to it indiscriminately as either 'microcredit' or 'microfinance'. Due to the broad range of microfinance services, it is difficult to assess impact, and very few studies have tried to study its full impact.

Features of Microfinancing:

1. Loan are given without security;

2. Loans to those people who belong to BPL *(Below Poverty Line);*

3. Even members of the SHG enjoy microfinance;

4. Maximum limit of loan under microfinance is Rs.25,000/-;

5. The terms and conditions given to poor people are decided by the administering NGOs;

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Microfinance works by providing small loans to the poor who otherwise have no access to traditional means of credit in order to start or expand the business they are already doing so as to generate income for better lives for themselves. The loans are repaid to MicroFinance Institutions (MFIs) without any collateral security or resorting to coercion. It gives the village more freedom to regulate itself.

Microfinance facilities are provided by both public sector and private sector institutions, which are known as formal and informal institutions. Apex Development Financial Institutions, Commercial Banks, Regional Rural Banks and Cooperative Banks are formal micro-financing institutions. These institutions provide the micro financing facility in addition to their main activity, i.e. general banking activities. In other words, the private sector institutions, whose main activity is microfinancing, are referred to as MFIs.

Microcredit is the part of Microfinance. It is a movement which has since been in existence in India for a long time in the form of informal banking. Money lending is one of the microcredit systems. This is generally seen among the rural folk who basically do not have education and are, thus, denied the facility of formal system of banking.

Microcredit requires to be supported by savings, risk reduction measures, insurance etc., which comprises Microfinance. Microcredit originated in the context of the strategy for poverty mitigation. It was meant for the poor and hence the word *Micro* was chosen to indicate its target population - the poor - who now would have the opportunity to access small loans (to suit their absorption capacity), quickly and at low cost. Hence microcredit interventions were embedded in the development strategy adopted by the interveners- usually the NGO. In this context, it often took on a broader set of interventions than even the portfolio of microfinance. This broader portfolio of interventions included those i) to reduce risk; ii) to create a portfolio of livelihood investment options which the poor are able to select from to build their family livelihood strategy which comprises many activities managed by the whole family. These options need to be created by investment in all round development which has to come from the Government, Private sector or NGOs especially in remote areas.

Therefore, when Microcredit is placed within the framework of a development strategy, it includes not just microfinance but goes beyond to include investment in all round development to reduce risk, to build market linkages and infrastructure for storage and communication, to add value and scale, to diversify off and on farm produce and to introduce off farm skills. To reduce this holistic strategy to "micro credit provision" is to castrate it and to separate it completely from its development roots. The neo liberal approach thrives on the presumption that capitalism is the only system possible; and it proceeded to strip the finance sector of all controls and regulation – resulting in a greedy capitalism that was free of ethics and under no obligation to society or the environment. The microfinance approach helps to mitigate the vulnerable populace from the vagaries of greedy capitalism.

The micro credit facility has flourished to the extent it exists now is because the institutions have concentrated on women folk in the rural areas. It is felt that men are restless, ambitious and compulsively mobile. They want to learn the skill and go to cities for better living. However, women do not wish to leave their village. Thus, the system had become successful because there is more of women involvement in the scheme than men.

The change of the woman from a lowly paid salaried class to an enterprising businesswoman is what the kind of transformation micro credit can enable in the lives of people. When the micro credit is properly managed, it helps to improve the income of people irrespective of the activity they are in. Microcredit schemes are vital and necessary among the poor populace, who have no access to formal banking.

It is widely accepted that the concept of microfinancing is essential both for the development of rural area and also for social upliftment of the rural poor. This has been realized world over and microfinancing policies have been brought in for achieving sustainable development. Even many renowned economists have published the importance of microfinancing and its role in the development of rural area. Number of under-developed countries, have felt the need for micro financing for the growth of its rural areas and the same could be seen even in emerging economy like India.

The credit for the success of the microfinancing system should go to well-intending Non-Governmental Organisations (NGOs). The success of the self-help groups (SHGs) has also played their part in the role played by the NGOs in microfinancing.

The concept and role of microfinancing is well known for social upliftment as well as for the development of rural and backward areas. Considerable efforts are being made at the public and private sectors to bring in enough number of technologies in the rural areas for their implementation and use through microfinancing for the overall development. However, support of microfinancing agencies including banks is not reaching at the grass root levels and, therefore, most

of the developmental programmes get diluted or ineffective and many a times they don't even take off. In the rural areas, people are not much aware about the microfinancing schemes and their benefits. Hence, in order to attain sustainable rural development and progressive poverty alleviation, the role of microfinancing agencies becomes very important in the context of current scenario. In the present paper, the whole mechanism of microfinance, its role to achieve sustainable rural development and for social economic benefits, are discussed in detail.

Wedding Microfinance into Credit Plans

There are currently three major programs and a few minor ones, which have incorporated micro credit in their strategy. The three major ones are i) the SHG-Bank Linkage program with no subsidy for the asset provided to the recipient, but with provision for investment in institutional capacity building (ICB) of the Self Help Group; ii) The Swarna Jayanti Grama Swarojgar Yojana (SGSY) of the Ministry of Rural Development (MoRD) with a subsidy for the assets and provision for ICB which was not used for the purpose intended but to fund large gatherings addressed by politicians or given to institutions with no experience in ICB and iii) the NBFC/MFI group of institutions; this group is crystallising into two: those with neo- liberal features and the other with a development mission.; and iv)The minor schemes providing micro credit are several programs involving credit and/or subsidy of the Ministry of Women and Child Development, Rashtriya Mahila Kosh etc.

No wonder microcredit today has wide appeal among policy makers as it soothes the conscience of those in power and who provide the funds, it fills the pockets of those managing it and is rewarded with the highest recognitions; besides it has helped to fill the gap created by "tired donors" who need a new recipe; hence it is attractive even in the development oriented institutions. Myrada that started in the year 1968 and now directly managing 18 projects in 20 backward and drought prone districts of Karnataka, Tamil Nadu and Andhra Pradesh extending microcredit facility , receives dozens of applications from students to study its micro credit interventions but none for watershed management in which Myrada extends the facility.

Microfinance has grown rapidly both in terms of outreach and also in the terms of number of service providers. The sector is diverse with the presence of different players of varying sizes and forms. Usually many service providers called NGO-MFOs go unnoticed because of their geographical locations and limited outreach. Some of the larger MFOs are transforming into regulated institutions and are, therefore, in a position to attract capital from both the private investors and the formal banking system. At the same time, at the other end of the spectrum is the smaller NGO – MFOs team ups. Their outreach and capacities is not much known and, therefore, they are not in a position to attract capital. Thus, the absence of concrete data-base in this regard comes in the way of the orderly growth of NGO-MFOs which could lead to better financial inclusion.

Another entity that has taken lead in extending the microcredit is NABARD. The NABARD-GTZ Rural Finance Program engaged the services of APMAS to compile a comprehensive information-base with a view to understand the specific requirements of the smaller organizations. The outreach of these organizations may be insignificant, given the size of the country, but their role is crucial and important as they are providing a valuable service to the excluded population.

Since the last two decades, NGOs have been offering financial services to clients in a limited manner. The success of the SHG -Bank linkage program brought NGOs to the forefront and in a way recognized their efforts, some of whom were engaged in financial intermediation. Since in the non-formal sector, the microfinance efforts were led by the NGOs, microfinance was taken up in a developmental mode rather than as a commercial financial intermediation activity. Also important is the fact that NGOs are formed with a voluntary spirit and profit making is not a motive for sustaining such institutions. As the NGOs grow over a period of time, they realize the limitations of their structure and look for alternate forms of organizations in order to continue providing financial services on a more sustainable basis to the needy . Some of the erstwhile NGO-MFOs have been successful in transforming themselves into organizational forms more suited for financial intermediation, which are normally the companies. As a result, microfinance institutions (MFIs) in India can now be found in the form of profit non-banking financial companies (NBFCs) as well as not for profit companies.

Overview and main characteristics of MFOs

The microfinance sector in India consists of approximately 800 Microfinance Organizations (MFOs) of different nature and size. There is a high geographic concentration with 75% of MFOs in two states only : Andhra Pradesh 62% and Tamil Nadu 13%, while the remaining 25% are scattered over 11 states. Incidentally the states with a high concentration

of MFOs also have a high concentration of SHGs and substantial credit linkages of these SHGs to the banks. The southern states are also states with a high banking density. Bihar with 44 MFOs is third in the states with large presence of MFOs.

The MFO sector is highly atomized and decentralized : 95% of MFOs operate in only one state. Only 36 MFOs operate in more than one state. Only one MFO has a truly wider presence in most of the less developed states in the country, but also in the southern states. MFOs which have a pan- India presence are necessarily registered as NBFCs and one hardly sees NGO-MFOs operating in more than one state. There was one NGO-MFO registered as a Society in Andhra Pradesh which had ambitions to spread to other states in the late 90s, but it could not realize its dreams partly due to its business model.

Organization of MFOs by legal types

There are a variety of financial institutions of diverse legal forms providing microfinance services in India. According to the *Task Force Report on Supportive Policy and Regulatory Framework for Microfinance* by NABARD, the MFOs can broadly be sub-divided into three categories of organizational forms.· 'Not for Profit MFOs' or 'NGO-MFOs' – Societies, Trusts and 'Not for Profit Companies'; 'Mutual Benefit MFOs' - generally in the cooperative sector comprising State Credit Cooperatives, National Credit Cooperatives and Mutually Aided Cooperative Societies (MACS)· The third category is 'for Profit MFOs' which would cover Non-Banking Financial Companies (NBFCs) registered under the Companies Act, 1956.

Based on the above definition and the legal type of organizations, MFOs can be categorized into three main types: companies, NGO MFOs and mutual benefit MFOs. These three types are distinctly different in many aspects.

Delivery methodology of the MFOs

MFOs deliver financial services through different lending technologies. The popular lending technologies/ methodologies among the MFOs are the SHG, Grameen, Individual and Cluster. Rural microfinance clients are both poorer on an average than urban clients and urban clients advance out of poverty at a relatively faster rate according to a Report of the Grameen Foundation.

The impact of microfinance on the poor has been tremendous; helping to empower individuals economically, socially and politically. It is reported that nearly 9 million Indian households, including approximately 45 million family members, rose above the World Bank's $1.25 a day poverty threshold between 1990 and 2010. According to a 2008 Report of the World Bank, 10% of the $60 million demand for such services had been met in India alone.

A study conducted by the SIDBI, showed that the borrowers benefitted significantly from microfinance. The report mentions that 76% were able to increase their income, 66% improved their food consumption, 56% improved their housing conditions, and 77% had better educational facilities.

But, the Indian MFIs forget that it is not only money lending which would improve the living standard of the poor but emphasis should also be placed on developing the skills, education and ability to create productive assets for steady income flows.

Microfinancing is only a part of the prosperity rosary. The rosary includes other beads like imparting of skills, providing financial literacy, creating markets, providing insurance and managing risks. These together with microfinancing would not only help the poor manage the loans properly and repay the dues, but also make the MFIs successful and more relevant.

However, there were allegations in the past, particularly in Andhra Pradesh, where the MFIs are very successful, that they use excessive pressure to enforce payments, charge higher rates of interest, etc. Moreover, even the suicides in some villages were linked to the alleged pressures of MFIs . This led to the realization by the government that regulations were required and guidelines were issued through the RBI. It has put certain limitations on the activities of the MFIs and gave more security to borrowers, like maximum loan sizes and interest rates, recognizing the importance of financial inclusion for all and role of the MFIs in realizing this goal. However, the government of Andhra Pradesh has introduced separate legislation requiring MFIs to get approval of the government agency, before each new loan application is processed for disbursal. This has adversely affected the borrowers which has resulted in larger MFIs to write off debt running in millions and left many smaller players bankrupt impacting the poor further and forcing them to go back to the clutches of traditional money lenders.

Muhammad Yunus, the father of modern day microfinance movement stated, *"We never said microfinance was a silver bullet,"*. Microfinance is neither perfect solution, nor it is immune to malpractice. It is, however, unrealistic that while dealing with millions of customers, each and every customer can be satisfied to the fullest. Microfinancing should only be seen as one among manifold solutions for poverty alleviation and rural development.

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HYBRID DATA MINING ALGORITHM:
AN APPLICATION TO WEATHER DATA

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ABSTRACT

Data mining is an attitude that business actions should be based on learning, that informed decisions are better than uninformed decisions, and measuring results is highly beneficial to analyze the large data sets. Association rule mining is the most commonly used techniques in Data mining. The application rule involves combining algorithms from apriori algorithm and clustering mining applying different kinds of association rules and its extensions on large data sets like weather analysis data . This process is used to analyze meteorological data to find hidden patterns so that the information retrieved can be transformed into usable knowledge. The expansion of earth science data in recent years have been made possible by advances in parallel, high-throughput technologies in the area of earth science. This has ushered in a new era in the area of earth science information system. The paper aims to build an effective and accurate tool to analyze and extract hidden knowledge from this huge data.

Keywords: Efficient Association, Rule Mining, Market Basket Analysis

INTRODUCTION

Data mining has recently attracted tremendous amount of attention in database research because of its applicability in many areas. In the data mining, the database can be transaction databases or analytical databases. Analytical databases can work as transaction databases by using the predicate logic. The mining method of association rule in the transaction databases is suitable for analytical databases.

Meteorological data mining is a form of Data mining concerned with finding hidden patterns inside largely available meteorological data, so that the information retrieved can be transformed into usable knowledge. We try to extract useful knowledge from daily historical weather data collected locally for Indian major cities. The data includes monthly period. After data preprocessing, we apply outlier analysis association clustering rules mining techniques. After each mining technique, we present the extracted knowledge and describe its importance in meteorological field.

With wide application of computers and automated data collection tools, massive amount of data has been continuously collected and stored in databases, which creates an imminent need and great opportunities for mining interesting knowledge from data. Association rule mining is one kind of data mining technique which discovers association or correlation relationships among data. The discovered rules may help market basket or cross-sale analysis decision making and

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business management. Mining association rule means that, given a database of transactions, to discover all associations among items such that the presence of some items in a transaction will imply the presence of other items in the same transaction. The mining of association rules can be mapped into the problem of discovering large item sets where a large itemset is a group of items that appear in a sufficient number of transactions. Usually large itemset generation is dominating factor for the overall data mining performance.

2. Literature Survey – Single dimensional association rule mining algorithms

There are two main algorithms that are in common use:

i) The Apriori Algorithm: mining frequent itemsets using candidate generation (*Agrawal & Srikant*, 1994)

ii) AprioriTid algorithm

2.1 The Apriori Algorithm

The apriori-gen function takes as argument Lk-1 the set of all large (k-1) item sets. It returns a superset of the set of all large k-itemsets. The function works in two steps. These two steps are similar to the join and prune steps, respectively. However, in general, first step produce a superset of the candidates produced by the join step. The major drawbacks of this approach are as follow:

i) *Generating large number of frequent itemsets is expensive*: 106 frequent 1-itemsets require testing of $5*10^{11}$ candidate 2-itemsets.

ii) *Not good for long patterns*: A frequent itemset of size 100 requires testing of 2100 ≈1030 smaller candidate itemsets.

iii) Repeated scans of database are expensive.

iv) The main bottleneck is the candidate generation mechanism.

Analysis of Apriori and AprioriTid algorithm

In this work Apriori and AprioriTid algorithm, which are used to construct the frequent itemset, are analyzed. On the basis of analysis, it is found that too many data due to those items is repeatedly saved in the AprioriTid algorithm. An efficient AprioriTid algorithm is presented. The implementation shows the new algorithm is more effective in decreasing data size and execution times than AprioriTid algorithm.

2.2. AprioriTid algorithm

As against Apriori algorithm, the AprioriTid algorithm [**4**] has the additional property that the database is not used at all for counting the support of candidate itemsets after the first pass. Rather, an encoding of the candidate itemsets used in the previous pass is employed for this purpose. In later passes, the size of this encoding can become much smaller than the database, thus saving much reading effort. The AprioriTid algorithm also uses the Apriori-gen function to determine the candidate itemsets before the pass begins. The interesting feature of this algorithm is that the database D is not used for counting support after the first pass. Rather, the set Ck is used for this purpose. Each member of the set Ck is of the form $< TID, \{Xk\} >$, where each Xk is a potentially large k-itemset present in the transaction with identifier TID. For k=1, C1 corresponds to the database D, although conceptually each item I is replaced by the itemset {i}. For k>1, Ck is generated by the algorithm. The member of Ck corresponding to transaction t is $< t.TID, \{c \in Ck \,|\, c$ contained in t$\} >$. If a transaction does not contain any candidate k-itemset, then Ck will not have an entry for this transaction. Thus, the number of entries in Ck may be smaller than the number of transactions in the database, especially for large values of k. In addition, for large values of k, each entry may be smaller than the corresponding transaction because very few candidates may be contained in the transaction. However, for small values for k, each entry may be larger than the corresponding transaction because an entry in Ck includes all candidate k-itemsets contained in the transaction.

From above analysis, using Ck is efficient method to avoid scanning DB in AprioriTid algorithm [**5, 6**]. However, same item may appear in many candidate itemsets contained in a transaction and appear many times in Ck , which will make item to be repeated stored and improve size of query data. In next fraction, I will give an idea for reducing size of data stored in Ck and a new efficient AprioriTid algorithm.

3. Efficient AprioriTid Algorithm

3.1. Proposed method

Method: **If c∈ Ck-1 and c.support<minsup, c is useless in Ck-1.**

Explanation: As large itemset (Lk-1) are generated from candidateset(Ck-1),and Lk-1={c∈ Ck-1 |c.count>=minsup}. It is also known that Ck is generated from Lk-1 , thus it can be said that any *itemset in Ck-1 whose support is less than minimum support, will not appear in Ck.* Hence, no need to consider those itemsets to build Ck-1, and this will reduce the size of Ck-1 in initial passes.

3.2 Efficient AprioriTid Algorithm

Efficient AprioriTid algorithm is improved AprioriTid algorithm. The basic idea is to only use itemsets of Ck-1, whose supports are equal to or greater than minsup,to build Ck-1; So a new relationship of transaction t with entry, is defined as Ck =<t.TID,{c∈ Ck |c∈ t and c.support >=minsup}> ; This will consumedly decrease size of stored data in Ck ; Moreover, because searching data scale is reduced when we compute support of itemsets in Ck. At the same time, it will reduce much time of I/O and running.

In AprioriTid algorithm, from step 6 to step 11, it is to compute new Ck and support of itemset in Ck. So we can add the sentence, which will delete itemset that support is smaller than minsup in Ck, to optimize the algorithm after step 11.

```
1)   L1={large-Itemsets};
2)   C1=database D;
3)   For(k=2;Lk-1≠φ;K) do begin
4)   Ck=generate     Lk    from    Lk-1    ;//New
        candidates
5)   Ck=φ;
6)   For all C ∈Ck do begin
7)   Tc={t.TID|t∈ Ck-1,c-c[k])∈ t.set-of-itemset
                 ∧ (c-c[k-1]∈ t.set-of-itemsets)}
8)   If|Tc| >minsup then begin
9)   Lk=LkU{C}
10)  For all p∈ Tc do
11)  Ck=CkUp,c>;
12)  End
13)  End
14)  End
15)  Answer=ULk;
```

Figure 1: AprioriTid algorithm

The material process is shown:

Step 1 : Firstly, Confirming itemset c in Ck, then transaction set Tc, presented with TID, including the item of c, is computed;

Step 2 :The number of entry is computed in Tc, defined as |Tc|, which is support of itemset c;

Step3: if |Tc| > minsup , c is included into Lk and Ck , otherwise deleting c.

Through above process, with the computed support in Ck, void itemset can be directly deleted from Ck or added to Ck and Lk. In following, the efficient AprioriTid algorithm is given.

From Step 8 to 12 of algorithm, it can be seen that eligible itemset c is added into Lk and all transactions of Tc are added into Ck.

4. Experiments and conclusions

4.1. Experiments

For validating the effect of Efficient A algorithm, I had taken a course database to mine association rule of course relationship. In this database, total records are 3486 minsup is support (%)of total records. For different values of support comparison in execution times of both algorithms is given in **Table** 1. The number of records in Ck and Ck are given in **Table** 2.

Table1: Comparison of execution time in sec.

Support	AprioriTid Algorithm(sec.)	Efficient AprioriTid Algorithm(sec.)
10	38.02	17.89
20	11.14	4.2
30	4.31	1.54
40	1.92	0.88
50	0.79	0.51
60	0.47	0.05

Table 2. Against Record Number

Passes(K)		AprioriTid Algorithm	Efficient AprioriTid Algorithm
K=2	C2	74	32
	C2	801	766
K=3	C3	85	18
	C3	883	734
K= 4	C4	14	1
	C4	445	239

From the **Table**1 and **Table** 2, it can be seen that efficient AprioriTid algorithm is valid in reducing data scale and execution time. The number of records is averagely reduced to 47%.With the searching scales decreasing; the algorithm complexity of efficient aprioriTid algorithm is reduced than AprioriTid algorithm.

With the above transaction database, experiment with different values of support to contrast execution time and record number is made between Efficient AprioriTid and AprioriTid algorithm. The experiment is performed on a workstation with a CPU clock rate of 2.0 GHz, 1 GB of main memory. The result is shown as follow:


	1	2	3
AprioriTid	78	79	14
Efficient AprioriTid	30	17	1
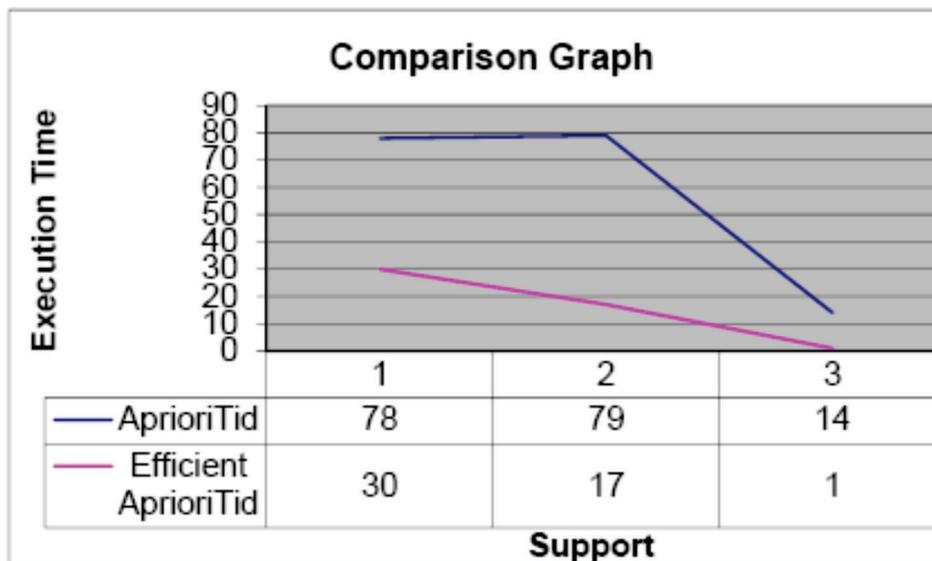
Figure 2: Execution times

	1	2	3
AprioriTid(Ck')	768	736	445
Efficient prioriTid(C	759	632	239

Figure 3. Record number
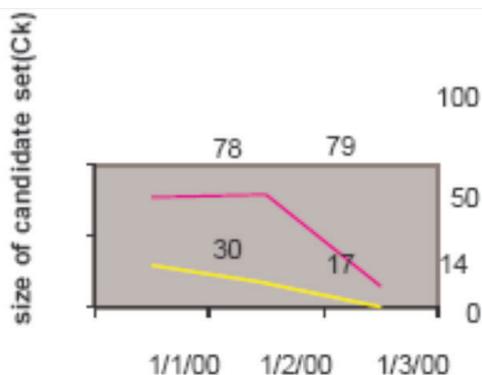
	1	2	3
	1	2	3
AprioriTid(Ck)	78	79	14
EfficientA prioriTid(C	30	17	1

Figure 4: Record Number

Figure 2 shows that with the minsup decreasing, the execution times of two algorithms increase because of increase in the total number of candidate and large itemsets. However, the Efficient AprioriTid Algorithm execution time is smaller than AprioriTid for searching data scale if reduced in Ck. When the candidate itemsets in *Ck* are rapidly increased with minsup reduced step by step, Efficient AprioriTid can save more execution times than AprioriTid algorithm.

First detail analyzes the Apriori and AprioriTid algorithm, then gives new idea to reduce the scale of candidate itemsets. On the basis of idea, i gives an improved AprioriTid algorithm. The experiment results show that Efficient AprioriTid can gain a better performance in the execution times and complexity of computing than AprioriTid algorithm.

To take care of the issues of large databases, following is the proposed methodology:

Phase 1: Data Cleaning

Phase 2: Static discretization of quantitative attributes using concept hierarchy

Phase 3: Association Rule Mining

The above phases are sequential in nature. These suggest that each phase produces certain deliverables which is taken sequentially as input by the next phase.

4.1 Phase 1: Data Cleaning

After selecting the attribute for analysis, the data related to those attributes is cleaned. The various steps of data cleaning are:

1   Eliminating all the tuples with large missing values – When a lot many values are missing in a tuple, the data authenticity cannot be verified. Due to large dataset, the tuples having more than 33% of missing values to be eliminated.

2   Dataset partitioning based on locations – The dataset is collected from various sites. As a particular region exhibit similar behavior, one needs to partition all the tuples based on *stationId*.

To achieve this, various intermediate temporary tables are created in database to hold the tuples belonging to a particular stationId. Running a single database scan and segregating all the tuples belonging to a particular *stationId* can be done.

This step is very important as the segregation according to *stationId* is going to be very helpful while filling the missing values.

Filling Missing Values: After deleting tuples having more than 33% missing attributes, the tuples with low missing attributes are filled with as follows:

Assumption: The value of attributes like pressure, temperature depends upon the corresponding values at its surrounding stations.

Using the above assumption, an algorithm for filling missing values has been proposed called *Nearby Station Algorithm*. The various parameters are discussed below.

The surrounding stations are defined as all stations which are within the radius *r* of 100 miles from *base station*. *Base station* is the one for which value of attributes are missing. The value of radius *r* can vary depending upon the nature of climate change patterns in the country.

For filling missing values of attributes of a particular station find out all surrounding stations which are within given radius *r* (we choose 100 miles). Assign them weight according to their distance to base station.

The input parameters taken by algorithm are: currentStationId which is *Base Station*. The *surrounding stations* are stored in an array neighbourStationId. The radius *r* is used to determine how many stations is neighbouring Base station and total neighbour stations are stored in numberOfStation.

****
* /**************************

* Nearby Station Algorithm

***************************/Input: currentStationId,neighbourStattionId [] ,numberOfStation

Output: missingValueattribute

Procedure :

sum =0;

totalWeight =0;

While(numberOfStation >0)

{d =

findDistance(currentStationId,neighbourStationId[numberOfStation]);

totalWeight + = (1-d/const);

sum += weight*neighbourStationId[numberofStation];

numberOfStation--;

}

missingValueattribute=sum/totalWeight;

realfindDistance(station1,station2){x = 69.1 *(station2.latitute -station1.latitute)

y = 69.1 *(station2.longitute -station1.longitte)*cos(station1.latitue/57.3)

return sqrt(x*x+y*y)

}

Filling Missing Values: After deleting tuples having more than 33% missing attributes, the tuples with low missing attributes are filled with as follows:

Assumption: The value of attributes like pressure, temperature depends upon the corresponding values at its surrounding stations.

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For filling missing values of attributes of a particular station find out all surrounding stations which are within given radius **r** (we choose 100 miles). Assign them weight according to their distance to base station.

The input parameters taken by algorithm are: currentStationId which is BaseStation. The surrounding stations are stored in an array neighbourStationId. The radius *r* is used to determine how many stations is neighbouring Base station

and total neighbour stations are stored in numberOfStation.

The problem of finding association rules falls within the purview of database mining [*Agrawal et al.*, 1993c; *Anwar et al.*, 1992; *Holsheimer* and *Siebes,* 1994; *Michalski et al.*, 1992; *Agrawal et al.*, 1993b; and *Sur,* 1990], also called Knowledge Discovery in databases *Han et al.*, 1992; *Lubinsky,* 1989; and *Shapiro*, 1991. Related but not directly applicable, work includes the induction of classification rules [*Breiman et al.*, 1984; *Catlett,* 1991, *Fayyad et al.,* 1993, *Han et al.*, 1992; and *Ross*, 1993]. The other works in the machine learning literature is the KID3 algorithm presented in *Piatestky* (1991). If used for finding associations this algorithm will make as many passes over the data as the number of combinations of items in the antecedent, which is exponentially large. Related work in the database literature is the work on inferring functional dependencies from data [*Bitton,* 1992; and *Mannila et al.*, 1987].

Table 4: Associations rules for UNA weather data

#	Rule	Conf.
1	[RH=mid Temp=warm Wind=Moderate] ==> [Rain=no rain]	0.99
2	[RH=high Temp=warm] ==> [Rain=no rain]	0.99
3	[Temp=warm Wind=Moderate] ==> [Rain=no rain]	0.99
4	[month = 2]==> [temp = cold]	0.96
5	[month = 1] ==> [temp = cold]	0.96
6	[month = 12] ==> [temp = cold]	0.95
7	[Wind=Light] ==> [Rain=no rain]	0.91
8	[Wind=light Temp=cold rain]==>[RH=moderate]	0.91
9	[Rain= Heavy Rain]==>[Temp = cold]	0.88
10	[Temp = cold]==>[Wind = Moderate]	0.74
11	[RH= low Wind = Moderate Temp=warm] ==>[Rain=Light Rain]	0.65
12	[Wind = Moderate] --> [RH = mid]	0.60

The implementation of algorithm shown in **Figure** 1 works in the following fashion:

1   It assigned the maximum weight to the station which is much nearer to the *base station*.

2   Weights of each station are calculated on the basis of distance using their latitude and longitude values with respect to *base station*.

3   On particular date weighted mean of corresponding attribute values with the above mentioned weight is taken.

The above method can work effectively only when the minimum number of stations called *minStation* is 10. The value of *minStation* can be varied according to density of weather stations in a particular geographical location. The value of radius *r* and *minStation* are taken considering the climatic conditions in the Indian subcontinent.

In case, numbers of *surrounding stations* are less than *minStation*. Then the tuples with low missing attributes are filled as:

1   Take the average of weighted mean of corresponding attribute values from *surrounding stations*. This value is called *weightedMean1*.

2   Take average of values of the same attribute derived from the tuples belonging to same *base station*. This value is called *Mean2*.

3   Take the average of *weighted Mean1* and *Mean2*.

The intermediate tables formed during the two step of this phase are merged together to form the original database. Thus the important task of filling the missing values has been done.

4.2 Phase 2: Discretization of quantitative attributes using concept hierarchy

The cleaned dataset obtained in previous phase is used to discretize the data. For discretization of attributes in intervals, statistical properties of data have been used. Various steps used in this phase are as follws:

1. **Finding mean and standard deviation of** *all the attributes in the dataset* – Determine the mean and standard deviation of each attribute residing in the dataset since the attribute values are numeric, is fairly easy to compute and can store the statistical parameters of data. Any standard statistical tool is quite capable of calculating mean and standard deviation of large amount of data. Any such tool like SPSS, SAS can be used or one can use a simple computer program to achieve this task.

2. **Replacing original values with their corresponding** *Normally distributed Ranges* – This is a fairly complex step, but ensures great benefits in the final outcome. The previous ways of discretization of the range of attributes into intervals does not utilize the statistical properties of data.

Common partitioning techniques used earlier were based upon dividing range of values with equal intervals, division based on equal frequency of tuples in an interval etc.

Large number of partitions will result in intervals having no significance. Having very few partitions will result in intervals occurring in most rules, i.e. the distinct rules will be very less and important patterns may be lost in large intervals. Thus, the attributes have been divided to cover the extreme values as well as distribute properly the majority of values.

Since the dataset is large, one has a good reason to believe that the data to follow Normal Distribution **[9]**. **Figure** 1 visually represents the partitions. The range (μ -σ toμ)and(μ toμ + σ) has been divided into 4 intervals each. The range (μ -2σ to μ -σ) and (μ + σ to μ +2σ) has been divided into two intervals each and remaining one interval for (μ -3σ to μ -2σ)and(μ +2σ to μ +3σ).
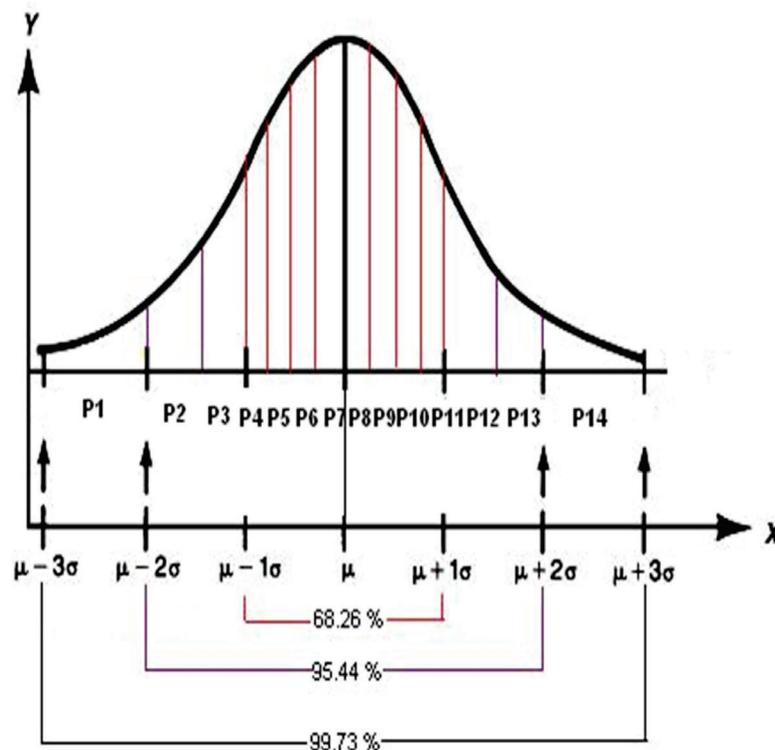

Figure 5: Discretization of Data

Now corresponding to each attribute in the dataset, we define a set of 14 representative ranges. Each range is being represented with a mnemonic of the form *Pi* where *P* being an English letter resembling the attribute and *i* being a number and its value lies in the range 1 to 14.

To calculate the representative range for each tuple one can follow the steps given below:

1. For mean (μ) and standard deviation (σ) corresponding to an attribute calculate following 14 ranges:

^1   **P1** = **[** (μ -3σ),(μ -2σ) **]**

^1   **P2** = **[** (μ -2σ),(μ -3σ/2) **]**

^1   **P3** = **[** (μ -3σ/2),(μ -σ) **]**

^1   **P4** = **[** (μ -σ),(μ -3σ/4) **]**

^1   **P5** = **[** (μ -3σ/4),(μ -σ/2) **]**

^1   **P6** = **[** (μ -σ/2),(μ -σ/4) **]**

^1   **P7** = **[** (μ -σ/4), μ **]**

^1   **P8** = **[** μ ,(μ + σ/4) **]**

^1   **P9** = **[** (μ + σ/4),(μ + σ/2) **]**

^1   **P10** = **[** (μ + σ/2) , (μ + 3σ/4) **]**

^1   **P11** = **[** (μ +3σ/4),(μ + σ) **]**

^1   **P12** = **[** (μ + σ),(μ +3σ/2) **]**

^1   **P13** = **[** (μ +3σ/2),(μ +2σ) **]**

^1   **P14** = **[** (μ +2σ),(μ +3σ) **]**

2. Now replace each of the values in every tuple corresponding to attribute considered in above step by the *Pi*, Where *i* denotes the range number to which the value of the attribute belongs to.

3.   Any tuple having the value not falling in any of the ranges above can be represented by either P1 or P14 whichever is closest.

After the completion of the above two steps, the dataset contains the nominal values and no numeric values. Though at first sight , there is loss of original data, but the process makes sure that the nominal values closely resemble the original numeric value, since it uses the Normal Distribution.

This is a crucial and important phase of data transformation. The work done in this phase directly translates into the quality of output in upcoming phases. Though the processing needed during the phase demands certain level of expertise with some of the statistical tools and technologies, but the underlining principle is fairly easy to grasp and deploy.

The resultant dataset is now in nominal form having values of the attributes defined in discrete sets of the form { P1, P2, P3, ….. , P14 }, where P represents the attribute, and i takes a value from 1 to 14. Because of this nominal nature of the dataset, it can now be analyzed with any standard association mining technique to derive the important results.

4.3 Phase 3: Association Rule Mining

The dataset prepared in the previous phase now have categorical attributes instead of numeric values. These categorical attributes can be generalized to higher conceptual levels.

The steps involved in deducting the association rules are as follow:

Mining Multidimensional Association Rules – Weather is continuous, data intensive, multidimensional, dynamic and chaotic [2]. The normal methods for mining Association Rules involves Apriori algorithm [6], but dataset for

association rule mining is different than traditional data set used in Apriori . Modifications in approach are required to mine multidimensional association rules which are inspired from *Kamber et al*. [7].

Due to large size of the database, efficiency needs to be improved. One such method used in this methodology is Transaction reduction [8].

The support and confidence values can either be determined statistically or it can be predicted with the help of domain experts. We proposed that support value be determined after generation of first candidate set by taking the mean of all the values of support of tuples. The initial support should be 1% of total number of tuples so as to cover sufficiently large tuples.

The confidence value initially proposed is as low as 30%, and then it is gradually increased high up to 90% because as the database is large, very large number of rules will be generated.

The output of this phase is set of multi dimensional association rules, which can give us the underlining description of the inter-relationship of attributes in the dataset.

Algorithm:

Input: A sample weather dataset 8 numeric and 2 categorical. The numeric attributes were STATION NAME, visibility, cloud clover, wind Direction, wind Speed, temperature, dew Point Temperature, station, Pressure, sea level Pressure, minimum support threshold, minimum joint profit.

5.1 Phase 3: Association Rule Mining

The original dataset was collected from over 4000 different stations from India. The considerable amounts of values of different attributes were missing from the dataset. Thus, the first step in the methodology proved to be very crucial. The dataset obtained after filling the missing values were used for partitioning of the attributes based on the 14 representative ranges defined in the two phase of methodology. The purpose of this phase was to obtain categorical attributes for the corresponding numeric attributes in the dataset. **Figure** 3 displays the dataset obtained after the completion of phase two. The Association Rule Mining is applied over the dataset in the three phases. Due to large dataset, the transaction reduction technique discussed in [**8**] was very helpful. The count of original dataset was 443146 which reduced dramatically during intermediate steps in Association rule mining.

The support was taken to be 30 and minimum confidence was initially 30% but it was increased to 80% during the mining process.

For eight attributes, time taken to generate candidate and frequent predicate sets is very high. Therefore, the rules displayed are generated after the five frequent predicate set and time taken to generate rules is about 60 hours. The rules are shown in **Figure** 4.

Output:

DISPLAYING THE RULES: CONFIDENCE

1. CLC4^STP11^TEMP10^DPT9 ->WSP4 69.0

2.CLC8^SLP3^TEMP9^VIS6 ->WSP4 42.0

3.VIS4^SLP10^TEMP7^WID5 ->WSP4 72.0

4.WID4^DPT9^TEMP13^WSP5 ->WSP4 31.0

CONCLUSION & SCOPE OF FUTURE WORK

The proposed Methodology provides a comprehensive knowledge about how to deal with large datasets. The methodology is easy but requires good knowledge of data mining.

Given the fact that methodology works with only   after cleaning the data which involves filling the missing values using the nearby station algorithm developed , then as a next step one has to use normal distribution for obtaining respective categorical attributes. This converts the dataset into nominal values so that Association rule mining algorithms

can be adapted. In the last step, Apriori algorithm is applied with some modifications suitable for mining multi association rules.

The proposed methodology provides an easy way of weather analysis for large data or similar works. The present approach to extract important association rules though complete, but it can be expanded to add enhanced functionality. To exemplify, the rules mined at the end of last step it can be further classified based on station-Id. This way we can use rules specific to each city, rather than using rules which apply in general to all cities.

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INFRARED ABSORPTION SPECTRA OF 5-BROMO-2-3-DIHYDROXY PYRIDINE

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ABSTRACT

The infrared absorption spectra of 5-bromo-2-3-dihydroxy pyridine have been reported. The infrared absorption spectra of this molecule have been recorded by using KBr pellets Technique. The paper discusses bands observed in the IR spectra by assuming the compound under Cs point group symmetry.

Keywords: benzene, *5-bromo-2-3-dihydroxy pyridine, vibrational spectra,*

INTRODUCTION

The aromatic compounds of the benzene family like benzaldehyde, pyridine, pyrimidine, uracil, cytosine and their derivatives are of great biological importance as they play an important role in the structure and properties of nucleic acid [1-2]. However due to their greater complexity and low symmetry, only a little spectral has been studied by researchers. [3-4]. The vibrational spectra of di-substituted pyridines have also been studied [5], but very little work appears on the IR spectra of tri-substituted pyridines [6]. Further, the N-heterocyclic molecules have some substituent like-OH, -SH and -NH$_2$. They may cause tautomerisum. *Tripathi et al.* [7] have studied the vibrational and electronic spectra of some substituted pyridine; *Medhi* [8] studied the IR and Raman spectra of 3-hydroxy pyridine. Some researchers [9-11] have also studied the electronic spectra of pyridines and substituted pyridines. In view of these, the present paper will focus on the vibrational spectra, of 5-bromo-2-3-dihydroxy pyridine.

EXPERIMENTAL

Specpure grade chemical 5- bromo-2,3,-dihydroxy pyridine was obtained from M/S Aldrich Chemise, West Germany and used as such. This chemical here-after will be referred as 5,2,3-BDHP. The purity of the said compound was also confirmed by elemental analysis and melting point determination. The infrared absorption spectra of 5,2,3-BDHP was recorded on Perkin Elmer spectrophotometer model-52 in the region 400-4000 cm^{-1} using KBr pellets techniques.

RESULT AND DISCUSSION

The structural formula of the compound 5,2,3-BDHP is given in **Figure 1**. The IR spectra of 5,2,3-BDHP in KBr pellets is given in **Figure 2**. The fundamental vibrational frequencies of the said molecule are given in **Table 1**. The Cs Point group symmetry has been assumed for the analysis of the said molecule.

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Figure 1: Molecular structure of 5,2,3-BDHP
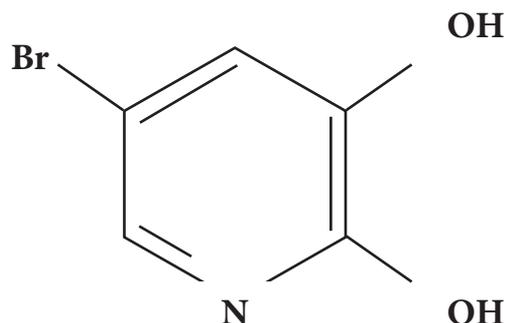
C-H Vibrations : Since the molecule 5,2,3-BDHP is a tri-substituted pyridine; therefore it has two hydrogen atoms left around the ring. Thus the compound 5,2,3-BDHP may have two C-H valence oscillations which usually lie in the region 3000-3100 cm^{-1} [10-12]. Two IR bands have been observed at 3105 cm^{-1} (KBr) and 3115 cm^{-1} (KBr) which have been assigned to this mode. These assignments are also in the agreement with the literature value [12-13]. *Rao* [14] has suggested that C-H in-plane and out-of-plane branding modes lie in the region 1000-1250 cm^{-1} and 700-900 cm^{-1} respectively. *Gupta et al.* [15] have assigned C-H in-plane bending mode at 1124cm in 4-hydroxy-3-methoxy benzaldehyde and out-of-plane bending mode at 790 and 828 cm in 3-hydroxy-4-methoxy benzaldehyde while *Goel* and *Atrey* [16] have assigned C-H out-of-plane bending mode at 1245 cm^{-1} in 3-aminio-2-chloro pyridine. *Tripathi et al.* [6] have assigned these modes in the region 1015-1180 cm^{-1} and 805-895 cm^{-1} in hydroxy pyridine.

Figure 2: IR Spectra of 5,2,3-BDHP in KBr pellets
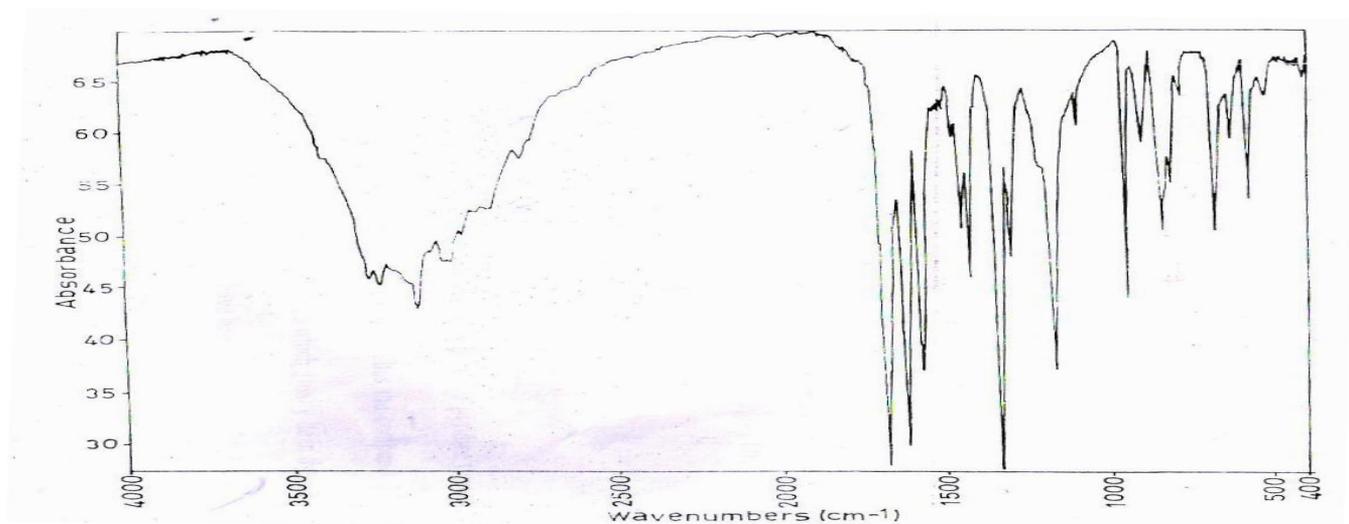
In view of these assignments, the bands observed at 1110 cm^{-1} (KBr) and 1180 cm^{-1} (KBr) have been taken to represent in-plane bending modes while the bands observed 815 cm^{-1} (KBr) and 850 cm^{-1} (KBr) have been taken to represent C-H out-of-plane bending modes. These assignments are also in the agreements with literature value [17-19].

C-C, C-N And N-H Vibrations : In benzene and substituted benzene, the frequency of ring breathing mode have been assigned in the region 690-844 cm [13,14,20,21]. The IR band observed at 785 cm^{-1} (KBr) has been assigned to ring breathing mode in the present investigation. The C-C stretching, in-plane and out-of-plane bending modes have been assigned in their respective regions [13-14] (**Table 1**). The C-C-C trigonal bending vibrations have assignment with the literature value [13,14,22].

Due to the tautomeric behavior of the molecule, the N-H stretching frequency may appear in the molecule. *Vir Singh et al.* [5] have assigned this mode at 3230 cm^{-1} in 2,4-dihydroxy-6-methyl pyrimidine. In view of this assignment, a weak

IR band observed at 3270 cm^{-1} has been assigned to N-H stretching mode of vibration while the band observed at 1680 cm^{-1} (KBr) has been assigned to N-H in-plane bending mode of vibration. This also find support from the literature [5,16]. Various other modes have also assigned in **Table 1** in their respective regions [14,23,24].

C-X Vibrations : Some researchers [25-26] have assigned (C-OH) Stretching mode around 1300 cm^{-1} in substituted benzene. *Gupta et al.* [15] have assigned this mode at 1262, 12565 and 1270 cm^{-1} in hydroxy methoxy benzeldehyde while *Yadav et al.*[27] have assigned this mode at 1270 cm^{-1} in the identical compound. In view of these assignments, the bands observed at 1310 cm^{-1} (KBr) and 1345 cm^{-1} (KBr) has been assigned to this mode. The (C-OH)-in-plane bending modes have been assigned at 570 cm^{-1} (KBr) and 680 cm^{-1} (KBr) in the compound 5, 2, 3-BDHP.

Sundaraganesan et al. [9] have assigned (C-Br) stretching mode at 527 cm^{-1} in 5-bromo-2-nitroPyridine. In view of these assignments, the band observed at 960 cm^{-1} (KBr) has been taken to represent (C-Br) stretching mode in 5,2,3-BDHP. As the in-plane bending and out of-plane bending mode lies in the low frequency range so these modes could not be found in the said molecule.

Since the compound is a hydroxy substituted pyridine, so the hydrogen atom of the hydroxy group at position 2 migrates to the N-atom of ring which shows the existence of C=O, N-H stretching and bending modes. *Vir Singh et al.*[5] have assigned a medium strong band at 1700 cm^{-1} in 2-4-dimethyl-6-hydroxy pyrimidine to represent (C=O) stretching mode of vibration and (C=O) in-plane and out-of-plane bending mode at 535 and 365 cm^{-1} in the same molecule. In view of this, the strong IR band at 1680 cm^{-1} has been assigned as (C=O) stretching mode of vibrations, while the IR band observed at 570 cm^{-1} has been assigned as(C=O) in-plane bending mode of vibration. Both the bands are taken in KBr pellet techniques.

Group Vibrations (-OH Groups) : In monomeric phenol [20, 28] the -OH stretching mode appears around 3600 cm^{-1} whereas in associated species it is reported in the region 3145-3430 cm^{-1} [15, 29]. *Goel et al.* [16] have assigned this mode at 3560 cm^{-1} in 4,6-dihydroxy-2-mercapto pyrimidine. In view of these assignments the bands observed at 3115 cm^{-1} (KBr) and 3240 cm^{-1} (KBr) has been taken to represent O-H stretching modes.

The spectra of substituted benzene shows, the O-H torsion mode as usually a weak band [14]. *Green et al.* [28] and *Siquenza et al.[*30] have assigned this mode near 420 cm^{-1} in penta chloro phenols, while *Faniran* [31] have assigned this mode at 314 and 318 cm^{-1} in penta-bromo and penta-chloro-phenols. During the present investigation, these modes have been identified at 435 cm^{-1}. The various other modes of this group are assigned in their own region in the **Table 1** [13-14].

Table 1: Assignment of Vibrational Frequencies in (cm^{-1}) of 5,2,3-BDHP

IR	ASSIGNMENT
435 vw	(O-H) torsion, γ ring
527 w	β (C=O), γ ring, ν (C-Br)
570 ms	β (C-OH)
630 w	β ring
680 ms	β (C-OH)
785 w	ring breathing, C-N-C bending vibration
815 w	γ (C-H)
850 ms	trigonal bending
846 ms	(C-C-C) trigonal bending
trigonal bending	(C-C-C) trigonal bending
905 w	β (C-H)
960 ms (I)	β (C-H)
959 ms (I)	ν (C-OH)
(C-C-C) trigonal bending ν (C-Br)	ν (C-OH)
1110 w	ν ring
1180 s	ν ring
1177 s	ν ring
β (C-H)	ν ring
1310 ms	ν (C=O), β (N-H)
1345 s	ν (C-H)
1341 s	ν (C-H), ν (C-H)
ν (C-OH)	ν (O-H), n$_{sym}$ (N-H)
1430 ms	
1455 ms	
1575 s	
1615 s	
1611 s	
ν ring	
1680 s	
3105 vw	
3115 vw	
3240 w	
3270 vw	

Where :   **ν** - stretching;   vw- very weak

β - in plane bending;   w- weak

γ - out-of-plane bending;   ms - medium strong

ν $_{sym}$ - symmetric stretching   s - strong.

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Biological Science

MASS PRODUCTION OF FROG THROUGH INDUCED BREEDING AND GROWTH IN LABORATORY AND FIELD CONDITION – THE CASE OF INDIAN BULLFROG (*Rana tigerina*)

Tatwa P. Timsina*

ABSTRACT

Frogs are one of the most used and abused animal in field and laboratory setting. They are persecuted for varieties of reasons making many of their species vulnerable. As they are used in large number for laboratory work and for food, there is need for induced breeding and mass production at field level. With the objective of developing protocol for induced breeding and mass production, the study applied both experimental and field based methods such as inoculation of pituitary gland and induced breeding at laboratory to revealing limiting factors for frog farming at field level. The study revealed that frogs could be artificially bred in both the laboratory and field condition. Various factors which play greater role in such process are covered in this paper.

Keywords: Conservation, Frog, Growth and Development, Induced Breeding, Mass Production, spermiation,

INTRODUCTION

Nepal is richly endowed with diverse plants and animal species because of its varied topographical features ranging from 60 m to 8848 m altitude. This unique topographical features has created a conducive environment for amphibians particularly frog to be abundant in Nepal (IUCN, 1998). There are 53 species of frogs which are found from mountains to *terai* part of Nepal (*Shrestha*, 2001). The Indian bullfrogs (*Rana tigerina*) is the best known of the amphibians and quite common in Nepal and it has largely been used in research and scientific purposes. It is a widely used item in zoological practical classes in Nepal (*Timsina and Upadhaya,* 2001).

Many species of frogs are becoming endangered because of their over exploitation (*Shrestha, T. K.*, (1981), IUCN (1988), *Schleich H. and Kastle W.* (2002). It has been reported that the frog which are used in colleges and research centres in Nepal are manually collected from agricultural field or pond in India and Nepal. There is no scientific frog farming centre in India and Nepal (*Timsina and Upadhaya*, 2001).

Captive rearing of frogs has been proposed to protect populations from overharvest (*Warkentin, I. G.,* 2008). In nature, ovulation in the local species of frogs is triggered by rains at various times throughout the year except in the winter months. Mating and breeding of frogs in confined semi-natural conditions, as well as in concrete ponds, are quite successful. Controlled reproduction of the frog species has been successfully carried out by using GnRH analogue to induce spermiation, ovulation and mating. Spermiation was successfully induced by the intraperitonial injection of a single daily dose of GnRH over three consecutive days *(Pariyanonth and Daorerk*,1994*).* Pariyanonth and Daorerk have

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also suggested that induced mating can be done by treating only the female frogs with the proper males in the breeding season. Fertilized eggs normally develop into tadpoles within 18-38 hours; the tadpoles later metamorphose into froglets within 28-36 days.

Frog farming has become quite popular and being practiced for long in many Asian countries such as Thailand. The demand for food to feed the rapidly increasing human population could help to raise farming to a commercial scale in the foreseeable future (*Pareta, P.* ,1978; *Schutt, S. L.* ,2009). Three species, *Rana tigerina, R. rugulosa* and *R. catesbeiana* are commonly farmed in many parts of Thailand. With the advances in biotechnology, frog farming can certainly be raised to the agro-industry level (*Pariyanonth and* Daorerk). *Campbell* (1999) emphasizes that frog husbandry includes three components: holding (temporary care of animals), rearing (for conservation and food purposes), and breeding (production of animals from captive-held stock).

The study on the induced breeding activities of the frog by experimental means and under laboratory and field condition is of great significance for scientific, ecological and food value. There has been a great demand for frog at various campuses of Tribhuvan University and other institutions for laboratory experiment of the science students in Nepal. Besides being a food value (eaten as Paha by villagers in the eastern mountain regions of Nepal), it has been reported that 3 to 5 star hotels are using frogs as delicious dishes to the customers (*Timsina and Upadhaya,* 2001). Excessive collection and disappearance of frogs may lead to the change in food chain of an agricultural ecosystem which in turn may cause outbreak of insect pest (*Shrestha*, 2001). Because of these impending conditions, a research work was conducted to establish experimental protocol on induced breeding activities of native species of frog (*Rana tigerina*) under laboratory condition which in turn can be applied to the field condition (CoE, 2012).

The objectives of the study were to assess the factors associated with frog breeding and growth in both laboratory and field condition.

MATERIALS AND METHODS

The study was based on both laboratory and field assessment which used both the primary and secondary data. Following methods and techniques were used in this research.

Site Selection and the field

A simple lab was set up near the pond located in Maheshpur VDC of Jhapa district in Nepal so that both the laboratory and outside study were carried out from the same place. The study on the induced breeding activities of the leopard frog (*Rana sphenocephala* or *Rana spp.)* was started from late July 2011. It took nearly one month to make arrangement of the scientific equipment including aquarium. The researcher carried out an observation tour of various colleges in Kathmandu and Jhapa districts to examine the use of frog in the dissection classes.

Collection of Frogs for Laboratory and Field study

The frogs collected in March and April were used for the experiment of the induced breeding. However, for the field level study (in the pond) the frogs were collected in June and July. For induced breeding, the study followed the method proposed by *Robert Rugh* (1968) in Experimental Embryology in which the removal of anterior pituitary gland from the roof of the mouth cavity is carried out. The pituitary gland was removed by exposing the brain and lifting it from the lateral side concentrating the eye on the posterior ventral part of the infundibulum where the pituitary gland is located.

In order to bring the frogs in the farming pond, the researcher carried out some manual practice. In this way, he collected about 50 adult male and female frogs and took them to the pond. In order to bring more to the pond, he used the cassette voice of the frogs recorded beforehand. This was done right at the mating time. He repeated this process for 2 days and had about 60 frogs gathered in this way.

Laboratory Study

The artificial fertilization of the frogs was carried out in the specially prepared laboratory in Jhapa district. Frogs were collected from a temporary pond located at Maheshpur VDC of Jhapa district. They were kept in an aquarium containing shallow water at laboratory temperature.

The female frogs of *Rana spp.* were collected from a pond and were found to be sexually matured as shown by the

presence of well developed ovary. The frogs were first anaesthetized so that the work could be carried out easily. By dissecting the female frog on their dorsal side locating from the lateral side of the brain, the pituitary glands were taken out.

Field Survey – Observation and Interview

Field survey was carried out regularly to know about different species and their status. Observation of the study areas ware carried out regularly by using several holistic and interdisciplinary ecological methods (*Michael, P*. 1989). The researcher observed laboratory classes of various colleges to examine the practice of dissection of frog by students. Another objective of the laboratory visit was to observe the amount of frogs used for the dissection purposes. The researcher also asked a number of local people and other people who were directly involved in frog farming or frog collection.

Data Interpretation and Synthesis

The information collected through laboratory and field assessment was analyzed and interpreted which helped in synthesizing the result of the work.

Materials

Various materials used for the experiment are rubber gloves, tray for dissection, air blower, syringe, collecting net, thermometer, petri dish, aquarium, dissecting box, collecting bottles, refrigerator, camera, glycerin, ether, distilled water etc.

RESULTS AND DISCUSSION

Laboratory Study

Inoculation of Pituitary Glands:

Along with 2cc. of medical distilled water four, five and one piece of pituitary glands were mixed separately and then inoculated to the lower abdominal quadrate of the sexually matured three different female frogs. In the first phase of the experiment, the inoculated frogs were then kept in a separate aquarium at 25°C and the time of ovulation was recorded. In the second phase of the experiment, the same number of pituitary glands were inoculated and the frogs were kept at 20°C and the time of ovulation was recorded. All the frogs were kept in common tap water with neutral pH and developing suitable environment. Air was supplied constantly by an electric air pump.

Five petri dishes with label N, 0.1N, 0.01N, 0.001N, and 0.0001N were prepared. Two pairs of testes from frogs with sperms were removed and changed to fine pieces in 10 cc.of tap water. The sperm mass was mixed properly manually putting in a test tube and was put into the petri dish "N" allowing it to settle down. By using a pipette, 1cc. of the sperm suspension from the N petri dish was taken out and mixed with 9cc. of tap water in petri dish "0.1N". In this way the concentration of the sperm suspension was decreased in other petri dishes.

Pituitary glands were extracted from the sexually matured frog (*Rana tigerina.*). Five pituitary glands with 2cc of distilled water were inoculated to a big size female frog and was kept at 24°C in aquarium and left for 40 hours. In this time duration, it did not show any sign of ovulation which may be due to the inoculation of glands done inappropriately. While dissecting this frog, it was found that in the abdominal region there were some eggs. However, another one, which was inoculated with 3 glands, showed ovulation after 20 hours at 23°C. This may be the lowest number of the pituitary glands that has to be inoculated to result fertilization in an artificial way. However, it also depends on the variation of temperature range. In this experiment, the induced frog became sluggish and finally died after 6 days.

Table 1: Sources of pituitary glands

Date	Female Sps.	Pituitary Source (Male or Female)	No. of Pituitary	Temp. ^{0}C
June 2012	*Rana spp.*	Female	4/Female	24
July 2012	*Rana spp.*	Female	3/Female	25
August 2012	*Rana spp.*	Female	3/Female	23

Source: CoE (2012)

There is a dire need of ideal condition of time, chemical component in water and temperature for fertilization of normal eggs of the frog, *Rana spp.* Because of time constraint only one variable i.e. the amount of the spermatozoa was used. The temperature was kept as the temperature of the laboratory and eggs were to be stripped into the sperm suspensions within 30 minutes of the maceration of the testes.

Table 2: Result of the laboratory experiment

Date	Sps. Type	Pituitary Source (Male/Female)	No. of Pituitary Extracted	Size of Frog (in cm.)	Temp. Medium ^{0}C
June 29, 2012	*Rana spp.* (big)	Female	5	23	25
June 30, 2012	*Rana spp.*(small)	Female	3	15	24
June 30, 2012	*Rana spp.* (small)	Female	4	16	25-26
July 1, 2012	*Rana* spp.(big)	Big Male – 1 Big Female -1 Small – 2	4	27	22-23
July 1, 2012	*Rana spp.* (small)	From big Ovulating Female Frog	1	15	24-25

Source: CoE (2012)

The study has proved that when the frog is provided enough food before and after inoculation of pituitary glands, it can produce more eggs than the one which is not fed properly.

Table 3: Examination of number of eggs and insemination

Sperm Concentration	No. of Eggs	Inseminated in vitro (No. of eggs)	Inseminated in vitro (% of eggs)
N (Control)	50	44	88
0.1 N	50	46	91
0.01 N	50	10	20
0.001 N	50	36	72
0.0001 N	50	6	12

Source: CoE (2012)

The result of the artificial fertilization shows that the number of fertilized eggs is comparatively higher in N concentration of sperm than in others. By providing air regularly through the air pump and keeping the eggs at 25°C temperature, the researcher tried to examine the change in eggs.

Induced breeding conditions and parameters (i.e. temperature, time and number of pituitary glands) are different in different species of frog (*Rugh*, 1968). Frogs can reproduce at any time in the laboratory if it is provided appropriate temperature, water for habitat and food. Regarding its production, even the artificial fertilization and introduction of hormone is not necessary.

Farming at Field Condition

Based on the field data, the researcher developed a system for frog farming in an environment suitable to Nepalese context. The major components are dealt below.

Farming Ponds - Different types of ponds are required for different stages of frogs. For the tadpole stage, a separate but small pond or a tank of appropriate size should be managed. The pond should be properly fenced so as to confine frogs in the area (*Watabe, K.* 2010).

Bull frogs have a migratory nature and are susceptible to predation. A low, small mesh fence 3 to 4 feet high can be

erected around the pond serving to contain frogs and exclude such predators as cats, snakes and turtles. Some sunshine is desirable to promote algal growth, but too much may result in excessive algal growth which is detrimental to water quality. Low oxygen levels in the water will not encourage frogs and can make the pond rather smelly. For the local species, the stocking capacity of the pond is about 80-100 full grown frogs per m^2 (*Pariyanonth & Daorerk*).

Species Selection and Mating – In this study, Indian Bullfrog *Rana tigerina* was introduced as an appropriate species for scientific study. In the rainy season when breeding starts, the male frog comes to the breeding ponds. Hence they use their specialized calls to attract female mates. The male frog climbs on top of the female's back and clasp the female around her 'waist' in what is called amplexus, and the eggs are fertilized in the water as she lays them in masses.

Eggs and Tadpoles- The frogs lay many eggs, but because of the high mortality rate, only a small percentage of eggs can reach to the tadpole stage. The egg masses were immediately transferred to the small pond, using a scoop to handle them. Then, the fertilized egg began to divide (*Vidyarthi,* 1998).

After few days, each cluster in the pond became a living mass of tadpoles. Tadpoles are scavengers, eating anything from table scraps to water moss. Shortly after hatching, the tadpoles fed on the remaining yolk. After about six to nine weeks, the tadpoles started to absorb their tails and grow legs and arms. Tadpoles cannot thrive on polluted or toxic water. Tadpoles like spinach, but needs to be boiled and drained properly. When water gets dirty, feeding frogs should be slowed down and water should be replaced (*Rugh,* 1968).

Frog – In the field, the raised frogs ate snails, bugs, beetles, mosquitoes etc. Since, the frog demands live food, the management of food for the growing frogs was the most difficult aspect in frog farming. As frogs and their tadpoles are cold-blooded animals, they have a slow growth rate. Their actual growth rate is directly related to the length of the growing season and the amount of food that was available (MDC). However, the study was carried out till froglet stage since transformation to frog takes several months to year (*CoE*, 2012).

Harvesting - The frog should be harvested before they go for aestivation or hibernation. Common techniques for harvesting are pole and line angling, spearing or gigging, or grabbing by hand. All are labour intensive.

Many frog farms can be established at natural marshy areas, swamps or shallow ponds which have abundant food and habitat suitable to the needs of wild frogs. The frogs usually are left to raise themselves. During the field visits, the researcher observed many of such sites in Jhapa district. Frog farming depends on a number of factors such as costs of land and feed, fencing and lighting costs, occurrence of disease, cannibalism, climate, predation etc.

SUMMARY AND CONCLUSION

There is a lack of scientific information regarding frog farming in Nepal. Therefore, referring to the academic and practical texts, the researcher himself designed some of the techniques that could be employed for frog farming. Frog hunters capture frogs in wild and sell them to colleges and hotels when they see any demand. However, frog farming seems to be feasible and viable economic option in many parts of the country.

There is possibility and potentiality of mass production of frog in the laboratory and field condition in Nepal. However, despite the hypothesis taken before hand, time has still not been ripe enough to kick off frog farming at campus level. This is not because of the lack of possibility, but more because of lack of any system for continuity and regular supervision. The work is also geared to improve our understanding of the intricate relationship among human beings, environmental degradation and vulnerability in frog species so that it could contribute to the improvement of practices of frog farming in Nepal. The study has also partially contributed in carrying out induced ovulation for breeding activity so that commercial production of the frogs could be carried out. This research has opened up the door for the further study of commercial frog farming in our context.

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DISTAL CAUSES FOR NEONATAL MORTALITY IN SOUTH ASIA

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ABSTRACT

Neonatal mortality in South Asian countries is rampant. Global commitment of reducing under- five mortality without improvement of neonatal survival is difficult to achieve. To explore the root causes of neonatal deaths can help to work out viable solution that can precipitate survival of a huge number of population. The main objective of this paper is to explore and identify the basic causes behind persistency of neonatal mortality in South Asian countries since decades as focusing on proximate causes were common and basic causes were unanswered which were leading to the persistent NMR. The basic causes includes, interalia, ignorance of mothers, lack of antenatal care and essential newborn care. This condition can be overcome by focusing on basic determinants like improving women's education and also by empowering women through improvement in social, cultural and economic determinant that afflict their conditions. This requires massive global, regional and inter-sectorial collaboration and partnerships.

Keywords: Ante-natal care (ANC), mother-in-law(MIL) , Neo-natal , Neonatal mortality rate (NMR),

INTRODUCTION

Among the various persistent problems, neonatal mortality is one of the leading factors that kill 33 newborns per 1000 live births in South Asia (SA) *(UNICEF, WHO, World Bank, & UNDP,* 2011). During decades of interventions through different programs like Integrated Management of Childhood Illness (IMCI), Safe motherhood programs and Community Based Neonatal Care Package (CB-NCP), NMR has hardly changed due to the deep rooted socio- cultural and economic factors that were not factored into account while formulating the programmes for health sector. Globally, neonatal mortality has not significantly dropped for last few decades. The persistence is alarming in the developing countries. South Asian countries show similar characteristics of persistent neonatal mortality rate constituting a higher proportion of deaths in India, Nepal, Pakistan, Afghanistan and Bangladesh. Though, Sri Lanka and Maldives comparatively fare better. Global commitment of reducing under- five mortality without improvement of neonatal survival is hardly achievable. It is necessary to know various reasons that leads to unabated neonatal mortality and to devise proper

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strategies to address the lacunae in present scheme. The moment newborn comes into existence, the period is the defining moment and this ought to be considered as the linkage between mother and child. Both ought to be considered as a unit. There is a major effect on newborn survival and health coming from women's health and morbidity. Maternal nutrition and care, basic antenatal care (ANC), place and assistance during delivery and essential newborn care (ENC) are key proximate interventions that enhance neonatal survival. It is these proximate interventions that are hindered by underlying social, cultural and economic factors.

This paper will explore distal factors underlying neonatal mortality in the SA region and why NMR has been a persistent problem in those countries over past decades. An analysis of distal factors is needed since, too often there is the tendency to concentrate on proximate factors affecting neonatal morbidity and mortality, but these do not address root causal factors making neonatal survival poor in every aspect. Addressing only proximate causes will not solve the problem on a long term basis; it will only give impression of incremental improvement of neonatal survival temporarily. Focus on distal factors offer a sustainable way to get rid of persistent NMR. This paper will try to highlight the points or areas where a public health professional, government official, or national and international non-governmental organization needs to focus.

Enquiry Questions and objectives:

"What are the basic causes for neonatal deaths in South Asia?"

To meet the enquiry question above, following objective has been formulated:

"To explore the different basic causes leading to neonatal mortality in South Asia."

METHODS

Countries studied were part of the region of South Asia using the UNICEF Region Classification, and Secondary data from eight different countries of SA were reviewed. The study design was based on documentary research using secondary data that was both qualitative and quantitative to analyze the evidences. The relevant document/papers/articles/ reports that provide the information regarding enquiry questions and objectives about South Asia, produced between 1990 and 2012 in English language were included.

FINDINGS

Socio-cultural factors:

Wide ranges of socio-cultural practices are present in South Asia that result in poor neonatal outcome hindering the successful implementation of proximate interventions. It was found in a review study of home based care of newborns in Bangladesh that a woman is discouraged to eat until her stomach is full due to cultural beliefs. In some areas, pregnant women eat wheat bread only. There are restrictions on protein rich food (to prevent indigestion), prawns (to prevent skin diseases), coconut (to prevent blindness), pine apple, *boal* fish[1] and flat peas (to prevent abortion), bananas (to prevent pneumonia), duck (to prevent foetal death) etc. *(Darmstadt, Syed, Patel, & Kabir, 2006).* One third of Indian babies are low birth weight which can be attributed at least in part to these and other practices that cause maternal under-nutrition (*Rao et al.*, 2001).

A cros-sectional survey (N=6,785 women) conducted in three divisions of Bangladesh on maternal newborn care practices found that almost half (46 percent) attendants did not do any hygienic practices during delivery (e.g., washing hands with soap and water, boiling cord-tie and blade before cutting cord), and more than half (58 percent) of newborns were not given colostrum as their first food (*Barnett et al.*, 2006; *Darmstadt et al.*, 2006). A cross-sectional study conducted in the Makawanpur district, Nepal (N=25,702) showed most (88 percent) of women first feed their babies with breast milk, but some (12 percent) feed sugar, ghee or honey before feeding breast milk according to the culture. Colostrum was discarded in first feed (45 percent) while foremilk was discarded at subsequent feed (69 percent) (*Osrin et al.*, 2002)

Women in South Asian countries are supposed to work at home as well as in the fields. They have to fetch water, cook food, wash dishes and clothes, clean the house, and take care of every member of the family. Their socially formulated roles make them and their newborn child vulnerable at the times of pregnancy. A study conducted among 797 women in Pune, India showed that babies born to women who were not performing household activities weighed 112 grams more at birth than the babies of women who were involved in these tasks (*Rao et al.,* 2003). Women's status is often found

to be poor in South Asian countries, especially during their pregnancy and delivery period. A qualitative study (39 in-depth interviews with mothers, fathers, grandmothers of neonates and traditional birth attendants, household survey of 6090 women who gave birth recently) conducted in Sylhet district of Bangladesh found that women's movements post-partum were restricted and that they were confined to the place where they gave birth to the child and slept on a mat on floor, rather than their bedroom till *noi* ceremony during 7th or 9th day was performed. These practices leave the newborn vulnerable to cold air along with mother (*Winch et al.*, 2005). A study conducted utilizing the Nepal DHS 2006 found that the child deaths were significantly higher (6.5 percent) in male-headed than female-headed house (4.5 percent). It also showed that literate women, users of family planning methods, visitors of health facilities, and utilizer of ANC were less likely to see a child die. Moreover it signified also that women from female headed houses were 31 percent less likely to experience child death than from a male headed house (*Ramesh & Chai*, 2010).

A review study done in Pakistan concluded that health seeking behavior of women is less compared to men, because health needs of women are determined by men (*Shaikh & Hatcher,* 2005). The lower status of women prevents them from recognizing and raising their voice for their health needs. Moreover, women are not allowed to go to the health facility alone or decide what to spend on health care (*Shaikh & Hatcher*, 2005). This makes them more vulnerable day by day which has direct effect during pregnancy and child birth.

Education is one of the important factors that plays a vital role in antenatal care of women. A study conducted in Nepal Medical College teaching hospital showed that home delivery was associated with the education level of the woman and also her husband (*Tuladhar,* 2010; *Tuladhar , Kayastha, & Shrestha* , 2009). An educated mother is likely to seek ANC more than others but it becomes more effective if husbands are educated along with women (*Mullany, Becker, & Hindin,* 2007). Due to high preference and value placed on a son, gender also determines the reporting of illness, choosing a health care provider and spending money on that illness. Male child is given more preference to all these facilities than female child (*Pokhrel et al.,* 2005*)*

The role of the mother-in-law (MIL) is crucial in Nepal in attending of ANC by their daughter-in-law. The role of the MIL is seen more negative in the case of ANC. The pregnant women cannot decide about her ANC by herself. One of the major reasons for this is lack of education of MILs who did not go for any ANC at their time. They do not want their daughter-in-law to escape from household duties and work in the name of ANC. On the basis of their experiences, they think that ANC is useless. There is always conflict in power relations between MIL and daughter-in-law (*McPherson et al.,* 2010; *Mullany,* 2006; *Simkhada, Porter, & Van Teijlingen*, 2010).

SOCIO-ECONOMIC FACTORS

Low socio economic status is also one of the determinants for care of women, nutrition, ANC and ENC care. Most women fail to seek care in a modern health care facility for ANC and ENC due to lack of economic resources despite availability of health facility with acceptable health care provider*(Shrestha,* 2012). South Asia region consists of low income and lower middle income countries. According to the World Bank, South Asia has highest concentration of poor people, more than 500 million people in SA, living on less than $1.25 a day (*World Bank,* 2011). This is the reason people cannot afford the maternal and child health care services even if they have access to them. In context of the subsidies provided by the public sector, the poorest quintile utilized only 10.1 percent of the net subsidy, according to a national level survey in India. The highest quintile benefited 3 times more (33.1 percent) than the lowest quintile *(Mahal, Yazbeck, Peters, & Ramana,* 2001).

A study conducted on various determinants of utilization of skilled birth attendants (SBA) in Afghanistan showed poverty as a major cause for poor utilization of SBAs. Women of highest wealth quintile had higher utilization of skilled care during delivery, and also there was lower utilization of skilled care during delivery by women who were close to health facilities that charged user fees (*Mayhew et al.*, 2008). According to Central Bureau of Statistics of Pakistan, the share of expenditure on health in 2004-05 in the lowest quintile in hospital and clinics was only seven percent as compared to that of the highest quintile (36 percent) in overall Pakistan *(Akram & Khan,* 2007). A study conducted by using Nepal DHS 2006 data of a sample of ever married women (N=4182) showed fivefold difference in the utilization of ANC between rich and the poor where 50 percent poorest women had no ANC visit (*Shrestha,* 2012). Many times women are forced to do home delivery due to economic factors even though they have planned for institutional delivery (*Tuladhar et al.*, 2009). Another study in Nepal also showed that the percent of women with adequate visits of ANC (minimum 4 times) also increased from 4 percent (low economic status) to 42 percent among high economic status

women (*Sharma,* 2002).All these proximate factors are hindered by economic factors and, better economic condition helps to improve the effect of proximate interventions.

A study done in India concluded that, in 2001 approximately 32.5 million people were plunged into poverty and 63.22 million were pushed below poverty line in 2004 only due to health care payments. Out-of-pocket expense on health care is a vicious cycle for poverty. This has reduced the use of health care and increased the risk of poverty.

CONCLUSIONS AND RECOMMENDATIONS

Persistence of neonatal mortality rates across the SA regions can be broken up by focusing on basic factors like social, cultural and economic determinants. This can be done only through improving women's education for empowerment. Focusing on the proximate causes doesn't work in breaking the persistency of NMR until basic determinants underneath the proximate factors are addressed. This requires a huge global, regional and inter-sectorial strategic planning, collaboration and partnerships, as it is the result of multiple factors and no single country or bilateral cooperation can effectively deal with this problem.

Notes : 1. Boal fish is a species of catfish having "Wallago" as English name, commonly found in large rivers and lakes found in Asia mainly across Bangladesh, India and Srilanka.

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IMPACT OF STRESS ON THE PERFORMANCE OF EXECUTIVES: AN EMPIRICAL STUDY

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ABSTRACT

Stress amongst the executives in organisations has become an important area of concern because individual's performance depends on his stress level. The paper focuses on relationship between stress and the performance of the executive. The Result shows that executives with high stress levels perform less. It is also observed that executives perform more with increase in the stress levels provided the stress level doesn't cross the optimum level.

Keywords: conflict, Cronbach Alpha Value, performance, stress, stressor.

INTRODUCTION

With the accelerating growth in the complexity of living experience , people are experiencing overload of stress. These stresses are induced due to various factors that include interalia, financial matters, occupation hazards and poor personal effectiveness. Research shows that excessive stress have negative impact on the work of the individual. It reduces the productivity and results into poor emotional and physical health.

What is stress? Stress is a vague term. It is the internal and external conditions that results into a stressful situations. The degree of stress is related to the person's perception about his inability to deal with the environmental conditions. This shows that level of stress depends on self confidence and self perceived abilities of a person.

Nowadays organisations are really worried about the negative impact of stress on the employees. Employees under excessive stress withdraw from their work and resort to absenteeism. If the stress is beyond the extreme level, it may sabotage the individual and in turn the smooth functioning of the organisation as well. The relationship between performance and stress is quite complex. The relationship is affected by the level of difficulty of the job, work environment, the nature of stressor, personal factors and other organisational issues. However it is also observed that productivity is at a peak when the level of stress is at optimum level .If the stress is at very low level, performance will be adversely affected.

The paper focuses on impact of stress on the performance of executives in their organisations. This empirical study is done in a manufacturing unit of an automobile company in Faridabad, Haryana, India.

LITERATURE REVIEW

Arnold and *Feldman* (1986) define stress as "the reactions of individuals to new or threatening factors in their work environment." Our work environment contains different and new situations, therefore the definition tells that stress is bound to happen. It also reflects that person's reaction to the stressful situation depends upon his personality and it also affects mental as well as physical health.

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French, Kast, and *Rosenzweig* (1985)have emphasized that stress is not always bad. They write,"The term stress can be considered neutral with the words distress and stress used for designating bad and good effects." They made a model which defines optimum range of the stress which in turn affect positively on the performance. Stress beyond optimum level result into decreased performance and may result into burnout.

It is observed from the literature that stress is inevitable , essential for completion of the task.. Without little , stress no challenging task can be finished .But if the level of stress increases than the productivity decreases . Optimum amount of stress is *eustress* and if it increases than it become *distress* .

Selye (1946) observed different phases the body undergoes in response of threat. He opined that the body passes through three phases. First phase is alarm reaction. Potential emergency is perceived by the body like slowing of digestion ,faster heart beats , dilated blood vessels, rise in blood pressure, and rapid breathing. Second phase is resistance. If the stress is continuous in nature, then body adapts it and it becomes habitual ,but the energy is being spent on against the stressor. Third stage is of exhaustion. In the second phase if excessive energy is spent on the stressor then the stress manifests into illness in the form of heart ailment, ulcers, digestive issues and so on.

Ivancevich and *Matteson* (1980) pointed out, "The problem we encounter today is that the human nervous system still responds the same way to environmental stressors, although the environment is radically different. The tigers are gone and with them the appropriateness of the fight-or-flight response."

Many researchers have studied the effects of stress on performance. *McGrath* (1978) has reported that moderate amount of stress empowers people to perform better. Improved performance can be due to enhanced arousal. But if the stress is far greater, it will result in decreased performance and concerning health issues. *Lawless*(1992) observed "workers are aware of the toll that stress has had on their own performances. Half of all workers say that job stress reduces their productivity".

Literature suggests that Stressors arise from within and the environment. Within an individual, it is internal and the one attributed to environment is external. Internal conflicts ,fears from within, guilt are few of the internal stressor . It arises from individual's perception. Environmental stressors are not in the control of individual.

Bhagat (1983) states, " Work performance can be seriously impaired by external stressors. There are many aspects of organizational life that can become external stressors. These include issues of structure, management's use of authority, monotony, a lack of opportunity for advancement, excessive responsibilities, ambiguous demands, value conflicts, and unrealistic work loads ".

Albrecht (1979) argues that mostly the stressors are emotionally induced. "These are based on peoples' expectations, or the belief that something terrible is about to happen. Thus, emotionally induced stress arises from one's imagination." Albrecht believed that the society's prime health issue is anxiety and he classified stress induced by emotions into four categories: time stress, anticipatory stress, situational stress, and encounter stress.

STRESS AND PERFORMANCE

Sullivan and Bhagat (1992) observed four possible situations regarding performance and stress (a) stress may increase performance, (b) stress may decrease performance, (c) stress may have no effect on performance and (d) the relationship between stress and performance may represent an inverted-U. Findings suggests an inverse relationship between stress and performance.

Allen et al. (1982) has endorsed the view on this inverse relationship between stress and performance. A meta-analysis by *Tubre* and *Collins* (2000) also support the negative relationship between role conflict, role ambiguity and performance. *Fried et al.* (1998) studied the affects of role conflict role, ambiguity and on the performance. They too found a negative relationship.

Rabinowitz and *Stumpf* (1987), *Sullivan* and *Bhagat (*1992) and *Beehr* and *Bhagat* (1985) also are of the opinion that stress and performance are related to each other.

The literature review reflects that there is a need to find more empirical relationship between stress and the performance of executives.

Objectives of the Study: The objectives of the study is to

i)   To find the stress level and the performances of the executives.

ii) To assess the impact of stress of the executive and his performance on the job.

iii) To find the relationship between stress of individual (Above and below optimum level) and their performance.

HYPOTHESES

The hypotheses are as under:

H1: Individuals with high stress level show lower performance.

H2: Individuals show better performance with the increase of stress upto an optimum level.

METHODOLOGY

The present study was conducted in an Automobile company situated at Faridabad. For the purpose of this study, 100 participants were administered with the questionnaire. The participants were of the age from 34 to 50 (mean age = 41 years) selected through random sampling. The executives are working in the company at middle level management. The individuals were administered questionnaire on level of stress and their perception about their performance.

LEVEL OF STRESS

Questionnaire on determining the level of stress was developed by the author under guidance of her research guide. This psychometric tool has Cronbach Alpha Value of 0.78. The scale has content validity. It has 14 statements to be rated by the respondents on a five-point Likert type scale.

JOB PERFORMANCE:

Questionnaire on determining the performance of individual was developed by the author under guidance of the research guide. This psychometric tool has Cronbach Alpha Value of 0.81. The scale has content validity. It has 11statements to be rated by the respondents on a five-point Likert type scale.

RESULTS

The Data obtained in the form of stress and performance was analysed using correlation, Results of the study are given in the Tables below:

Table 1: Correlation between Stress and Performance of Executives

Variables	Performance	Mean	SD
Stress (Above moderate level)	R (- 0.378*) R2 (0.14)	3.35	.71
Stress (Below moderate level)	R (0.436*) R2 (0.19)	2.47	.63
Performance	-	3.43	.82

*Where R = Pearson's r, R2 = Regression value, *   p < .001*

Result shows that executives with high stress levels perform less. There is negative correlation between stress and performance. Therefore,

H1: Individuals with high stress level show lower performance, is *accepted*.

Result also shows that executives perform more with increase in the stress levels provided the stress level doesn't cross the optimum level. There is positive correlation between stress and performance. Therefore,

H2 : Individuals show better performance with the increase of stress upto an optimum level , is *accepted.*

CONCLUSIONS

It is evident from the study that stress in the individuals working in organisations have an impact on their productivity. Empirical evidences shows that at high level of stress, individuals are performing low. It is also observed that executives with moderate and low stress level show better performance. The optimum amount of stress is important for creating an urge in the individual to perform good, that optimum level of stress is the *Eustress.* Beyond that level of stress, the performance/efficiency reduces .Organisation must muster their resources to keep the stress level of executive at the moderate . It will also help create a proper environment of team building and improve organisational effectiveness.

The role of management becomes one of maintaining an appropriate level of stress by providing an optimal environment, and by doing a good job in areas such as performance planning, role analysis, work redesign/job enrichment, continuing feedback, ecological considerations, and interpersonal skills training.

Limitations: Following are the limitations of the study:

i)   The study was conducted in one organisation only. Therefore, the findings cannot be generalised across all the organisations.

ii)   The study proceeds with the assumption that the questionnaire on different parameters will elicit a forthright response.

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A STUDY OF EMPLOYEES' JOB SATISFACTION AND ITS IMPACT ON THEIR PERFORMANCE

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ABSTRACT

Happy workers are productive workers and productive workers are likely to be happy. Employee job satisfaction is essential to face the dynamic and ever-increasing challenges of maintaining productivity of the organization by keeping their workforce constantly engaged and motivated. Furthermore, environmental pressures, rising health costs and various needs of the workforce also pose a challenge for the management. This could be overcome by creating a work environment that maintains employee job satisfaction as well as motivates people towards exceptional performance at the workplace achieving work-life balance. This paper outlines the broad contours of various variables responsible for employee satisfaction and various ways by which one can maximize employee satisfaction.

Keywords: Deviance, Employee Performance, Satisfaction, turnover.

INTRODUCTION

Employee satisfaction refers to a collection of positive and/or negative feelings that an individual holds toward his or her job. Job Satisfaction is a part of life satisfaction. It is the amount of pleasure or contentment associated with a job. Job Satisfaction is an emotional response to a job. Job satisfaction is one of the most popular and widely researched topics in the field of organizational psychology (*Spector,* 1997). *Locke* (1976) defines job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. Job satisfaction has been studied both as a consequence of many individual and work environment characteristics and as an antecedent to many outcomes. Employees who have higher job satisfaction are usually less absent, less likely to leave, more productive, more likely to display organizational commitment, and more likely to be satisfied with their lives (*Lease*, 1998).

There are a variety of factors that can influence a person's level of job satisfaction. Some of these factors include the level of pay and benefits, the perceived fairness of the promotion system within a company, the quality of the working conditions, leadership and social relationships, the job itself (the variety of tasks involved, the interest and challenge the job generates, and the clarity of the job description/requirements). The happier people are within their job, the more satisfied they are said to be. The concept of job satisfaction has gained importance ever since the human relations approach has become popular. Job satisfaction involves complex number of variables, conditions, feelings and behavioral tendencies.

REVIEW OF LITERATURE

The study of job satisfaction is a topic of wide interest to both people who work in organizations and people who study them. Job satisfaction has been closely related with many organizational phenomena such as motivation, performance, leadership, attitude, conflict, moral etc. Researchers have attempted to identify the various components of job

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satisfaction, measure the relative importance of each component of job satisfaction and examine what effects these components have on employees' productivity.

Spector (1997) refers to job satisfaction in terms of how people feel about their jobs and different aspects of their jobs. *Ellickson* and *Logsdon* (2002) support this view by defining job satisfaction as the extent to which employees like their work. *Schermerhorn* (1993) defines job satisfaction as an affective or emotional response towards various aspects of an employee's work. *C.R. Reilly* (1991) defines job satisfaction as the feeling that a worker has about his job or a general attitude towards work or a job and it is influenced by the perception of one's job. *J.P. Wanous* and *E.E. Lawler* (1972) refers to job satisfaction as the sum of job facet satisfaction across all facets of a job. *Abraham Maslow* (1954) suggested human need from a five-level hierarchy ranging from physiological needs, safety, belongingness and love, esteem to self-actualization. Based on Maslow's theory, job satisfaction has been approached by some researchers from the perspective of need fulfillment.

Job satisfaction and dissatisfaction not only depends on the nature of the job, it also depends on the expectations what the job supply to an employee (*Hussami*, 2008). Lower convenience costs, higher organizational and social and intrinsic reward will increase job satisfaction (*Mulinge* and *Mullier*, 1998). Job satisfaction is complex phenomenon with multi facets and influenced by the factors like salary, working environment, autonomy, communication, and organizational commitment (*Vidal, Valle* and *Aragón,* 2007). Different people interpret compensation differently. Compensation, reward, recognition, and wages are terms used in different situations (*Zobal,* 1998). The compensation is defined by American Association as "*cash and non-cash remuneration provided by the employer for services rendered*". Salary was found to be the prime factor for the motivation and job satisfaction of salaried employees of the automobile industry in the results of the survey done by *Kathawala* et al. (1990). The survey tried to assess the various job characteristics and the way the employees ranked them as motivators and satisfiers. The results showed that compensation was ranked as the number one job element for job satisfaction and increase in salary for performance was ranked as the number one job element for motivation. Compensation is very valuable tool for retention and turnover. It is also a motivator for an employee in commitment with the organization which in result enhances attraction and retention (*Zobal,* 1998; *Moncarz et al.,* 2009; *Chiu et al.,* 2002). It also works as communicator when it is given to employee against his services which shows how much an employee is valuable for its organization (*Zobal*, 1998).

The mentoring is used for development-orientation (*Scandura* and *Williams*, 2004). When a supervisor provides mentoring, the relationship affects the protégés skill development and intentions to remain with the employer (*McManus* and *Russell*, 1997). On the other hand non-supervisory mentor may increase mentee's confidence by providing access to outside organization (*Scanduraa* and *Williams*, 2004). The immediate supervisor support is very important in organizational change. Although the support of supervisor is not very crucial in satisfaction but it has positive impact on satisfaction (*Griffin, Patterson* and *West,* 2001). According to *Chakrabarty, Oubre,* and *Brown* (2008), "*perhaps the finest way in which supervisors can portray himself as a role model is to personally demonstrate proper techniques so that employee could understand how job should be done.*" *J.D. Politis* (2001) has examined the roles played by leadership in the process of knowledge acquisition and a survey was carried out on 227 persons who were engaged in knowledge acquisition activities to examine the relationship between leadership styles and knowledge acquisition attributes. The results showed that the leadership styles that involve human interaction and encourage participative decision-making are related positively to the skills and essential knowledge acquisition.

According to the study conducted by *Friedlander* and *Margulies* (1969), it was discovered that management & friendly staff relationships contribute to the level of job satisfaction. However, this result contradicts with view of *Herzberg* (1966) who supported the view that supervision is irrelevant to the level of job satisfaction. *Arnold* and *Feldman* (1996), promoted factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources as part of working conditions. The worker would rather desire working conditions that will result in greater physical comfort and convenience. The absence of such working conditions, amongst other things, can impact poorly on the worker's mental and physical well-being (*Baron* and *Greenberg,* 2003). *Arnold* and *Feldman* (1996) shows that factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources are all part of working conditions. Employees may feel that poor working conditions will only provoke negative performance, since their jobs are mentally and physically demanding.

Objectives of the Study

The objective of the study is as follows:

- To identify the factors which influence the job satisfaction of employees.

- To identify the impact of employees' job satisfaction on their performance.

- To identify the factors which improve the satisfaction level of employees.

Importance of Employee satisfaction for Various Stakeholders

1. *Importance of Employee Satisfaction for the Organization:*

- Enhance employee retention.

- Increase productivity.

- Increase customer satisfaction.

- Reduce turnover, recruiting, and training costs.

- Reduced wastages and breakages.

- Reduced accidents.

- Reduced Absenteeism.

- Enhanced customer satisfaction and loyalty.

- More energetic employees.

- Improved teamwork.

- Higher quality products and/or services due to more competent, energized employees.

- Improves a corporate image.

2. *Importance of Employee Satisfaction for the Employee*

- Employee will believe that the organization will be satisfying in the long run

- They will care about the quality of their work.

- They will create and deliver superior value to the customer.

- They are more committed to the organization.

- Their work is more productive.

FACTORS INFLUENCING EMPLOYEE JOB SATISFACTION

1. **Policies of Compensation and Benefit:** This is the most important variable for employee satisfaction. Compensation can be described as the amount of reward that a worker expects from the job. Employees should be satisfied with competitive salary packages and they should be satisfied with it while comparing their pay packets with those of the outsiders who are working in the same industry. A feeling of satisfaction is felt by attaining fair and equitable rewards. Following points may be delineated under this category:

- Salaries or wages

- Bonus

- Incentives such as medical allowance, educational allowance, HRA etc.

2. **Job Security:** Job security is an employee's assurance or confidence that they will keep their current job. Employees with a high level of job security have a low probability of losing their job in the near future. Certain

professions or employment opportunities inherently have better job security than others; job security is also affected by a worker's performance, success of the business and the current economic environment. Following points come under this category:

- Facility of transfer

- Accessible / reasonable target

- Leaves

3. **Working conditions:** Employees are highly motivated with good working conditions as they provide a feeling of safety, comfort and motivation. On the contrary, poor working condition brings out a fear of bad health in employees. The more comfortable the working environment is more productive will be the employees. Following these points come under this category:

- Feeling safe and comfort in working environment.

- Tools and equipment.

- Working methods.

- Security guards and parking facility.

- Well ventilated with good light fans and air- conditioning.

- Neat and clean office place, rest area and washrooms.

4. **Relationship with Superior authority:** A good working relationship with your supervisor is essential since, at every stage, you need his or her professional input, constructive criticism, and general understanding. Following these points come under this category:

- Relationship with immediate supervisor.

- Communication between employees and senior management.

- Treatment to employee.

5. **Promotion and Career Development:** Promotion can be reciprocated as a significant achievement in the life. It promises and delivers more pay, responsibility, authority, independence and status. The opportunity for promotion determines the degree of satisfaction to the employee. Following points come under this category:

- Opportunity for promotion.

- Equal opportunity to grow despite being male or female.

- Training program.

- Opportunity for use of skills and abilities.

6. **Leadership Styles:** The satisfaction level in the job can be determined by the leadership style. Employee satisfaction is greatly enhanced by democratic style of leadership. Democratic leaders promote friendship, respect and warmth relationship among the employees. On the contrary, employees working under authoritarian and dictatorial leaders express low level of employee satisfaction. Following points come under this category:

- Prefer democratic style of leadership

- Friendship, respect and warmth relationship.

7. **Work Group:** It is a natural desire for human beings to interact with others. Therefore, existence of group in organization is a common observable fact. This characteristic results in the formation of work group at the work place. Isolated workers dislike their job. The work groups make use of a remarkable influence on the satisfaction of employees. Following points come under this category:

- Relationship with the group members.

- Group dynamics

- Group cohesiveness

- Need for affiliation.

8. **Personal Variables:** The personal determinants also help a lot in maintaining the motivation and personal factors of the employees to work effectively and efficiently. Employee satisfaction can be related to psychological factors. Therefore, numbers of personal variables determine the employee satisfaction of the employees. There are five variables under this category – Personality, Expectation, Age, Education, and Gender Differences.

9. **Other Factors:** There are some other important variables which affect the level of employee satisfaction in organization. Following points come under this category:

- Group outgoing (feel like a part of family).

- Encouragement and feedback.

- Use of internet and other technology for doing job.

IMPACT OF JOB SATISFACTION ON EMPLOYEE PERFORMANCE

➢ **Satisfaction and Productivity:** *"Happy workers are productive workers"* is a myth. Various research mentions, *"Productive workers are likely to be happy"*. Satisfied workers are more productive and more productive workers are highly satisfied. Worker productivity is higher in organizations with more satisfied workers.

➢ **Satisfaction and Absenteeism:** Satisfied employees have fewer avoidable absences, while it certainly makes sense that dissatisfied employees are more likely to miss work.

➢ **Satisfaction and Turnover:** Satisfied employees are less likely to quit. Organizations take actions to retain high performers and to weed out lower performers.

➢ **Satisfaction and Workplace Deviance:** Satisfied employees are less likely to create a deviant behavior at the workplace, while dissatisfied employees creates an anti-social kind of behavior at the workplace including unionization attempts, substance abuse, stealing at work, undue socializing and tardiness.

➢ **Satisfaction and Organization Citizenship Behaviour (OCBs):** Satisfied employees who feel fairly treated by and are trusting of the organization are more willing to engage in behaviors that go beyond the normal expectations of their job.

➢ **Satisfaction and Customer Satisfaction:** Satisfied workers provide better customer service. Satisfied employees increase customer satisfaction because they are more friendly, upbeat, and responsive; they are less likely to turnover, which helps build long-term customer relationships; and they are experienced. Dissatisfied customers increase employee job dissatisfaction.

HOW TO IMPROVE EMPLOYEE SATISFACTION?

Employee attitudes typically reflect the moral of the company. In areas of customer service and sales, happy employees are extremely important because they represent the company to the public.

1. Clear, Concise and Consistent Communication: In many organizations, employee doesn't know what is mission, vision, objects. Building a corporate culture that requires employees to be an integral part of the organization can be an effective way of getting the most from the talents or competencies brought to the organization by each employee. We should keep employees informed on the company's position, progress made, issues/challenges, and how they directly contribute to the success of the business.

2. Getting to Know Your Employees and Create a Team: It can be done by hiring the right employee for right job and clearly defined and communicated employee expectations. Every organization should spend time to instill trust and accountability, laying out clear expectation and securing their commitment to the business and build a culture around

working together to meet challenges, create new advantage, and propel the business to greater success.

3. Training and Other Improvement Programs: Provide necessary education, training and coaching that increases employees skills and shows the employee that you are interested in their success and readiness for new responsibility.

4. Empower Employees Across the Company: Step up appropriate levels of new responsibility across the company. Push appropriate decision making and allow people closes to the issue to make the call. Make sure your employee knows that you trust them to do their job to the best of their ability.

5. Work Itself: We can increase employee satisfaction by making job rotation, job enlargement like knowledge enlargement and task enlargement as well as job enrichment. Target should be accessible for employee.

6. Fair Compensation and Benefits: Policies of compensation and benefits are most important part of organization. But you should build your policies at "suitability" not "the best".

7. Opportunity for Promotion and Career Development: Develop programs to promote all titles in the organization and build programs for career development of each title. Organization should give opportunity to every employee for using their abilities, skills and creativeness.

8. Monitor Performance and Reward for Contribution: People naturally keep score. Use this as advantage by monitoring positive contribution and behavior, rewarding as appropriate. Motivate others to reach new performance levels by knowing how they measure upto expectation. We should build the proper evaluation and fair and encourage employees perform work.

9. Provide Regular, Honest Feedback: Don't wait for a crisis situation to give feedback. Instead, give regular constructive input into the employee's performance across a wide variety of issues, build loyalty, challenge to new levels of performance and keep it real.

10. Provide Best Equipment and Safe Working Condition: Invest in employees by making sure their tools and equipments don't keep them from being successful. Give them the very best tools to deliver the very best performance to the company, customers and the marketplace. Companies should build occupational health and safety program.

CONCLUSION

On the basis of above deliberations, we can say that employee attitudes typically reflect the moral of the company. In areas of customer service and sales, happy employees are extremely important because they represent the company to the public. Every organization should develop strategies that strengthen the work environment and increase the employee's morale and employee's satisfaction to enhance employee performance and productivity, which ultimately results in high profits, customer satisfaction as well as customer retention.

Job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees. Policy makers and managers have turned their attention to provide different kinds of facilities to their employees in order to satisfy their employees. A good work environment and good work conditions can increase employee job satisfaction and the employees will try to give their best which can increase the employee work performance.

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CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT

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ABSTRACT

CSR is what business does over and above its statutory obligations. Society and business are complimentary to each other in their goal for sustainable development. One cannot thrive without the other. Hence, business has a moral responsibility to contribute in enhancing larger social good. The main aim of this research paper is to analyze and understand the role of corporate social responsibility in the overall scenario of sustainable development and inclusive growth. Further, this paper will also analyse the contribution of various Indian organisations for the social upliftment. The present paper will illustrate the present status of organisations in India with regard to their compliance to social responsibility and ethical practices. To overcome the challenges found during the implementation of CSR,, few suggestions have been delineated.

Keywords: Corporate social responsibility (CSR),Green ecology, ICICI, welfare.

INTRODUCTION

The second half of this year (2013) makes the beginning of a new era for corporation in India. The new Companies' Bill has been approved by the Parliament and the President of India has given assent to it. This Act aims to improve the transparency & accountability of corporate sector in India. The Acts among other aspects provides for certain change in norms of CSR.

CSR is now accepted as a means to achieve sustainable development of an organization. Hence it needs to be accepted as an organizational objective. Under this Act, the prescribed plan of companies is required to outlay a portion of their profit on CSR activities.

Business can no longer limit themselves to using resources by indulging in activities that increase their profit only. The Companies have to be socially responsible corporate citizens and also contribute to greater common social good. Ultimately, the aim of social responsibility is all about integrating the three objectives: economic, environmental and social within the framework of company operations and growth. Though the philanthropy is a fore runner to the concept of CSR, it's much more than the philanthropy. An organization can accomplish sustainable development, if the CSR becomes an integral part of its business process. CSR impacts almost every operational area of a company. The Companies Act 2013, intends to inculcate the philosophy of CSR among Indian companies.

OBJECTIVES

- Make a critical analysis of the concept of corporate social responsibility.
- To analyse CSR in an Indian scenario.

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- To understand the areas of CSR in which the companies are involved.

- To study the challenges in implementation in CSR and recommendation for effective implementation.

HYPOTHESIS

CSR is an effective tool for sustainable development.

RESEARCH METHODOLOGY

The research proposes to use qualitative research tools to empirically support the arguments of this research paper that successful companies in India do value social responsibility. The researcher has adopted the doctrinal method in order to study the development of CSR in Indian context and would further adopt the empirical research to find out whether successful companies in India value social responsibility and standards of ethics.

LIMITATION

- Time constrain;

- Non accessibility of information held by various organisations.

- Non-availability of information in many cases.

CORPORATE SOCIAL RESPONSIBILITY IN INDIA

Tata honcho Ratan Tata emphatically stated : " W*e do not do it for propaganda,   we do not do it for publicity."*

According to Narayana Murthy , the Infosys Chief, *social responsibility is to create maximum shareholders working under the circumstances, where it is fair to all its stakeholders, workers, consumers, the community, government and the environment*.

Subrata Mukherjee the President of ICICI foundation declared : "CSR needs to be embedded in to the core of the business strategy" .

CONTRIBUTION OF VARIOUS COMPANIES

There are various companies in India engaged in CSR activities. Companies engaged in CSR mainly focus on the following areas:

Upliftment of Society: Various organisation in India are raising funds, joining and supporting NGO'S for upliftment of society like HDFC,ICICI, Jet Airways.

Concern for Health & Society : Awareness is being generated in the society for positive and good health. Various epidemic diseases like HIV/AIDS and improving access to medicine for poor and people in rural areas. Various organisation like NTPC, AMWAY, NOVARTIS, MODICARE, OXFAM are generating awareness successfully.

Child & Women Welfare: Children are the backbone of any nation. Various organisation are helping schools in slum and supporting socially backward women and also sponsoring various women & children upliftment projects. Organisation like WIPRO, NIIT,HINDUSTAN PENCILS LTD. are few among them.

Green Ecology: Environment plays an important role in the society. It is the duty of every citizen to protect the environment. Various kinds of toxic gases, waste production, and water contamination are some of the issues on which the organisation like Sony Panasonic, Orchard hotels are focusing.

Development of Rural areas: Various organisations are focusing on the overall development of adjoining villages around their plants. Various facilities like good educational infrastructure, hospitals etc. in villages have been developed by the various organisation like Bajaj Auto, ONGC.etc.

Employee's Welfare: Employees are the backbone of every organisation. Every organisation wants that their employees should be fully satisfied to enjoy the environment in which they work and live. Various international human rights and employees' welfare programme are handful of examples of CSR.

NEW TRENDS IN CSR ACTIVITIES

In India, various organisations are following charity- based philanthropic social initiative- based CSR approach. However in a globalised era, Indian CSR should focus beyond health and education scheme. Companies should work for propagating renewable sources of energy. The acute problem of power shortage can be overcome by encouraging renewable resources. Pollution is another focus area. Pollution damages human health as well as plants life. Organisation should take initiative to reduce this problem. Since industrialization has caused proliferation of fragile eco-system, companies should focus on creating and sustaining bio- diversity. Various organisations through the CSR should focus to protect the bio-diversity so that the variety of plants & animal life can be preserved. Few other areas like poverty alleviation, infrastructure development along with education, health, and environment should also be the focus areas of CSR.

CHALLENGES TO IMPLEMENT CSR

The biggest challenge of CSR is that the corporate should have a holistic approach and it can no longer be confined to its financial concerns alone but should also address concerns of the society and environment at large. Due to lack of awareness, various organisations have accepted CSR activities in a narrow perspective and there is a general apathy in pursuing CSR activities. Lack of specific areas of focus, and concomitant rules and regulations is one of the most important challenges to implement CSR most effectively.

SUGGESTIONS FOR EFFECTIVE IMPLEMENTATION OF CSR

- Every organisation should decide minimum annual expenditure for the CSR activities. In order to ensure, Inclusive growth, envisaged in our Plan Vision document ,rural areas should get priority over urban areas in the matter of getting returns from CSR activities.

- Public & private partnership can also be a better tool for effective implementation of CSR activities.

CONCLUSION

The concept of CSR is not new, rather it started during 1950s in India. Various authors and organisations have defined this concept but still a suitable and consensual definition of CSR is awaited.

CSR in India is known due to the efforts of the TATA. Nowadays galaxy of the organisations is following CSR activities. However, there are have been different point of view regarding CSR. In the present scenario, CSR is practised for social causes, healthcare, education, infrastructure development, women empowerment, community development, political empowerment and national heritage. However, there are certain areas which are untouched. In today's globalised era, new trends of CSR like generation of electricity, containing & checking pollution, bio- diversity production should be encouraged. CSR is the need of the hour to bring changes in the current situation to put socio- economic development in India on a fast track.

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INVESTOR'S PREFERENCE TOWARDS MUTUAL FUND IN COMPARISON TO OTHER INVESTMENT AVENUES

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ABSTRACT

In today's competitive environment, different kinds of investment avenues are available to the investors. All investment modes have advantages & disadvantages. An investor tries to balance these benefits and shortcomings of different investment modes before investing in them. Among various investment modes, Mutual Fund is the most suitable investment mode for the common man, as it offers an opportunity to invest in a diversified and professionally managed portfolio at a relatively low cost. In this paper, an attempt is made to study mainly the investment avenue preferred by the investors of Mathura, and we have tried to analyze the investor's preference towards investment in mutual funds when other investment avenues are also available in the market.

Keywords: Gold, Investment Avenues, Investors, LIC, Mutual Funds, National Saving Certificate (NSC), Post Office, Real Estate.

INTRODUCTION

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is invested by the fund manager in different types of securities depending upon the objective of the scheme. These could range from shares to debentures to money market instruments. The income earned through these investments and the capital appreciations realized by the scheme are shared by its unit holders in proportion to the number of units owned by them (pro - rata). Thus, a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. Anybody with an investible surplus of as little as a few thousand rupees can invest in Mutual Funds.

The Assets under Management (AUM) of the Mutual Fund industry of India fell by 4.5% or Rs. 38,355 crore to Rs. 8.08 lakh crore during the quarter that ended in September, 2013. But this industry grew at 12 percent in October 2013 to Rs. 8.34 lakh crore. The rise in AUM was led by heavy inflows into liquid funds, which rose by 55 percent to 1.89 trillion rupees in October 2013, marking the highest inflow into any category of funds over the past six months. The growth in inflows were caused by enhanced liquidity in the financial system, and cyclical inflows historically witnessed in the month of October as banks and companies re-invested the surplus funds they withdrew to pay advance taxes in September. Investments in equity mutual funds registered significant gains in October 2013, despite increased outflows as investors continued to redeem and exit after making gains. Average AUM rose 7 percent, or 110 billion rupees, to 1.73 trillion rupees in the month, mirroring the sharpest gains recorded in the country's stock markets during the month. Whether the trend of investing in MFs is duplicated at the level of investors in small towns like Mathura?

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REVIEW OF LITERATURE

NCAER (1964) conducted a survey of households to know the attitude and motivation of individuals towards saving.

Ippolito (1992) mentions that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds.

Gupta (1994) concluded a study to help the policy makers of mutual funds in designing the financial products for the future.

Kulshreshta (1994) provides several guidelines to the investors while selecting different mutual fund schemes.

Madhusudhan V Jambodekar (1996) did a study to find out the awareness about Mutual Funds among investors and to identify the factors which influence the purchasing decision and the choice of a particular fund. Newspapers and Magazines are the primary source of information through which investors get the information about Mutual fund schemes and fund provider service is the important factor while choosing Mutual Fund Schemes.

Sujit Sikidar and *Amrit Pal Singh* (1996) have done a survey to understand the behavioral aspects of the investors of the North Eastern region towards equity and mutual funds investment portfolio. The survey states that the salaried and self-employed were the major investors in mutual fund primarily due to tax concessions. UTI and SBI schemes were popular in that part of the country then and other funds was not as successful during the time when survey was done.

Shankar (1996) states that Mutual Funds viewed as commodity products by the Indian investors, and to capture the market one should follow the consumer product distribution model.

Goetzman (1997) point out that there is evidence that investor psychology affect fund/scheme selection and switching.

Syama Sunder (1998) carried out a survey to get an insight into the mutual fund operations of private institutions with reference to Kothari Pioneer. The survey point out that awareness about Mutual Fund was poor during that time in small cities like Vishakapatnam. Agents play important role in spreading the Mutual Fund culture; open-end schemes were much preferred then; age and income are the two important determinants in the selection of the fund/scheme; brand image and return are the prime considerations while investing in any Mutual Fund.

Rajeshwari. T.R, Moorthy Rama V.E., Srinivasan Ajay (1999) in their studies have conducted a survey among Mutual Fund Investors in Urban and Semi-Urban centers to study the factors influencing the fund/scheme selection behavior of Retail Investors. They suggested that AMCs should design products consciously to meet the investors' needs and should be alert to capture the changing market moods and be innovative. Continuous product development and introduction of innovative products, is a must to attract and retain this market segment selection.

SEBI – NCAER Survey (2000) was carried out to estimate the number of households and the population of individual investors, their economic and demographic profile, portfolio size, and investment preference for equity as well as other savings instruments. This is a unique and comprehensive study of Indian Investors, for which data was collected from 3,0,00,000 geographically dispersed rural and urban households. Some of the relevant findings of the study are : Households preference for instruments match their risk perception; Bank Deposit has an appeal across all income class; 43% of the non-investor households equivalent to around 60 million households (estimated) apparently lack awareness about stock markets; and, compared with low income groups, the higher income groups have higher share of investments in Mutual Funds (MFs) signifying that MFs have still not become truly the investment vehicle for small investors.

Kavitha Ranganathan (2006) has examined the related aspects of the fund selection behavior of individual investors towards mutual funds, in the city of Mumbai.

Bodla B. S., Bishnoi Sunita (2008) has concluded in their study that the mutual fund investors in India at present have as many as 609 schemes with variety of features such as dividend, growth, cumulative interest income, monthly income plans, sectoral plans, equity linked schemes, money market schemes, etc. Though both open-end and close-end schemes have registered excellent growth in fund mobilization, but currently the former category of schemes is more popular among the investors. Portfolio-wise analysis has brought that income schemes have an edge over growth schemes in terms of assets under management. Moreover UTI's share in total assets under management has come down to 11.8 percent in 2006 from 82.5 percent in 1998.

Das Bhagaban, Mohanty Sangeeta, Shil Chandra Nikhil (2008) has thrown light on the selection behavior of Indian retail investors towards mutual funds and life insurances particularly in post-liberalization period. With this background, their paper made an earnest attempt to study the behavior of the investors in the selection of these two investment vehicles in an Indian perspective by making a comparative study.

Walia Nidhi & Kiran Ravi (2009) in their study have tried to identify critical gaps in the existing framework for mutual funds and further extend it to understand the need of redesigning existing mutual fund services by acknowledging Investor Oriented Service Quality Arrangements (IOSQA) in order to comprehend investor's behavior while introducing any financial innovations.

Sarish and *Ajay Jain* (2012) concluded that for the purpose of investment or saving, the investor are having options to invest money in mutual funds and other financial instruments like equity shares, debentures, bonds, warrant, bank deposits. A common investor, who invests their savings into the different assets, is not very much aware about the mutual funds.

V. Rathnamani (2013) concluded that many investors are preferred to invest in mutual fund in order to have high return at low level of risk, safety liquidity.

It can be said that the Mutual Fund as an investment vehicle is capturing the attention of various segments of the society, like academicians, industrialists, financial intermediaries, investors and regulators for varied reasons and deserves an in depth study.

In this paper, an attempt is made mainly to study the investment mode preferred by the investors in Mathura and to check the preference given to investment in mutual funds amidst availability of other traditional investment avenues.

OBJECTIVES OF THE STUDY

- To find out the most preferred Investment Avenue of the investors of Mathura.

- To analyze the investor's preference towards investment in mutual funds when other investment avenues are also available in the market.

- To find the main bases of different investment avenues, an investor thinks before investing.

- To find out the overall criterion of investors regarding investment.

RESEARCH METHODOLOGY

Universe of the Study: Mathura in which Chowk Bazar, Dampier Nagar, Moti Kunj, Bank Colony, Krishna Nagar and Radha Puram was covered.

Sample Size: 300 Investors.

Sampling Unit: Small & Big Investors.

Sampling Procedure: Snowball Sampling.

Sampling Time-frame: August, 2013 – October, 2013.

Research Instrument: Structured Questionnaire.

Investment Avenues covered in this paper: Banks, LIC, PPF, Bonds, Mutual Funds, Real estate, Commodity Market, Gold, Equity Shares, Futures & Options and instruments of Post Office like NSC, KVP, MIS and others.

GRAPHICAL REPRESENTATION OF DATA

Table1: Awareness of different Investment avenues

Avenues	No. of Respondents	Avenues	No. of Respondents
Banks	300	*Gold*	234
LIC	300	*Equity Shares*	204
PPF	228	*Futures & Options*	114
Bonds	204	*NSC*	240
Mutual Funds	288	*KVP*	234
Real Estate	286	*MIS*	192
Commodity Market	132	*Others*	168

Figure 1: Awareness about Investment Options
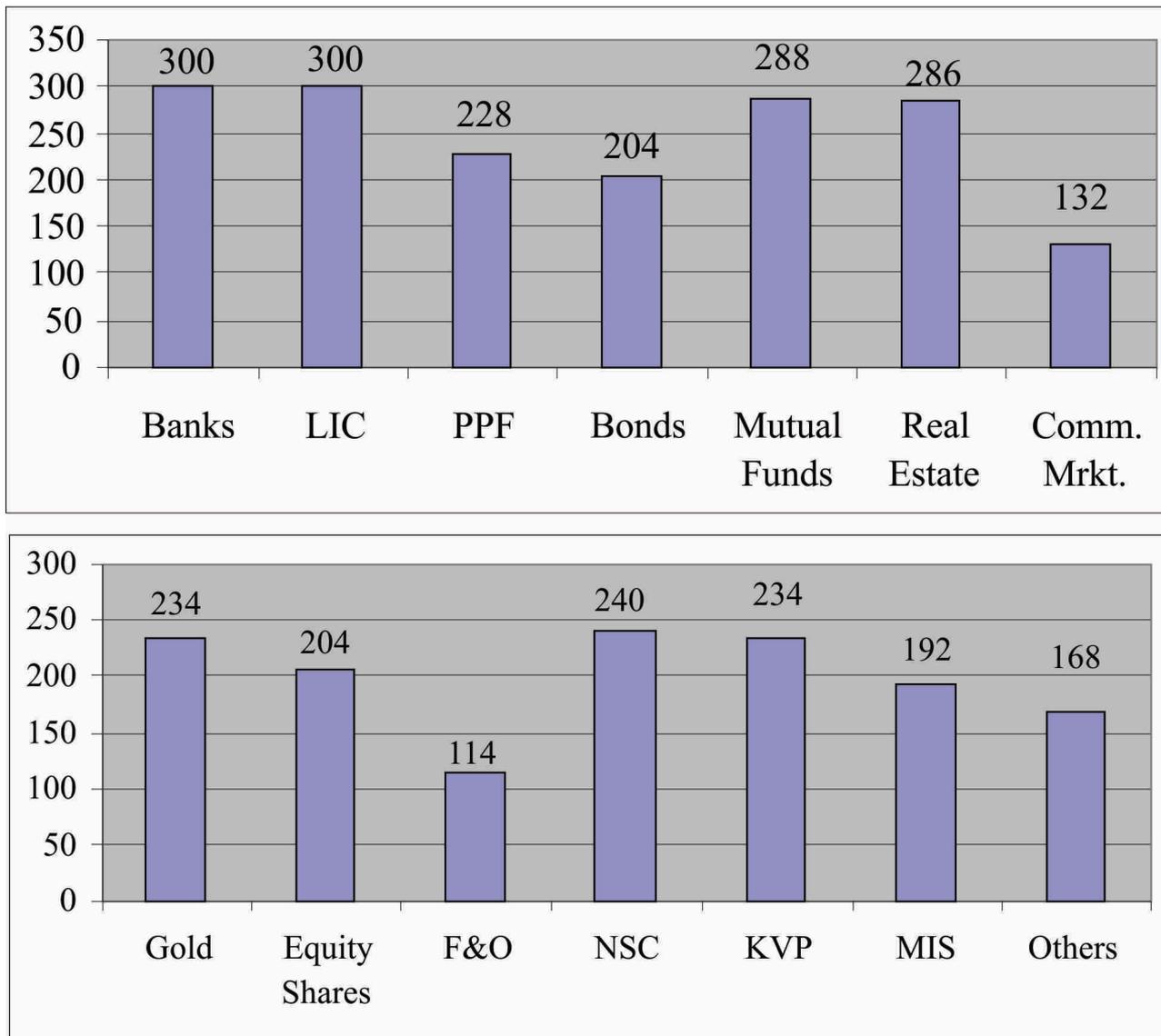
Interpretation: 100% investors are aware about Banks & LIC, while 96% are aware about Mutual Funds followed by 95% for the Real Estate, NSC 80%, Gold & KVP 78% each, PPF 76%, Equity Shares & Bonds 68% each, MIS 64%, Others 56%, Commodity Market 44% and the least aware is the Futures & Options with a respective figure of 38%.

Table 2: Overall Criterion for Investment

Options	No. Of Respondents	Percentage
Safety	66	22
Return	138	46
Liquidity	12	04
Convenience	06	02
Tax Planning	78	26
Total	300	100

Figure 2: Criteria for Investment
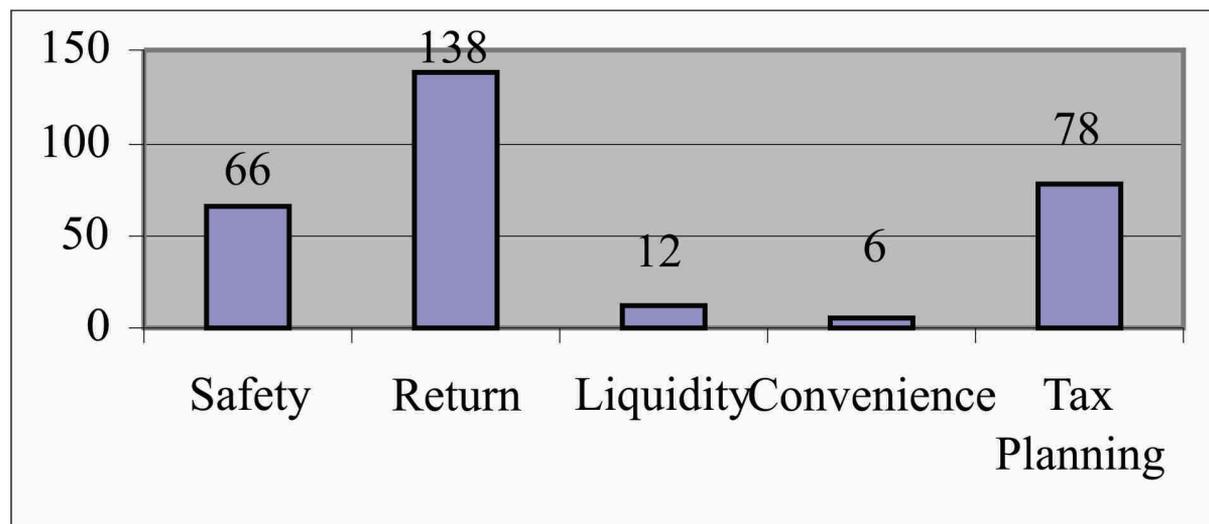
Interpretation: 46% of the investors' overall criterion for investment is Return followed by Tax Planning 26% and for Safety at 22%.

***Rating of different modes of Investment* [first priority]**

Table 3: Investment in Banks

Basis	No. Of Respondents	Percentage
Safety	210	70
Return	30	10
Liquidity	00	00
Convenience	48	16
Tax Planning	12	04
Total	300	100

**Figure 3: Preference for investment in Banks**
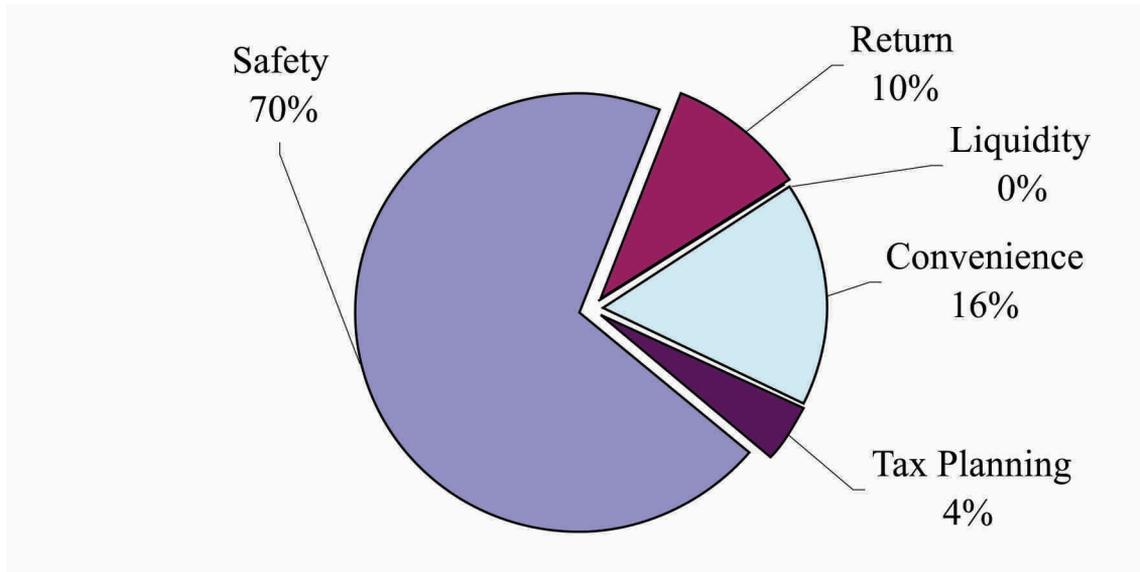
Interpretation: 70% of the investors prefer Banks for Safety followed by Convenience at 16%.

Table 4: Investment in LIC

Basis	No. Of Respondents	Percentage
Safety	156	52
Return	12	04
Liquidity	18	06
Convenience	06	02
Tax Planning	108	36
Total	300	100

Figure 4: Preference for Investment in LIC
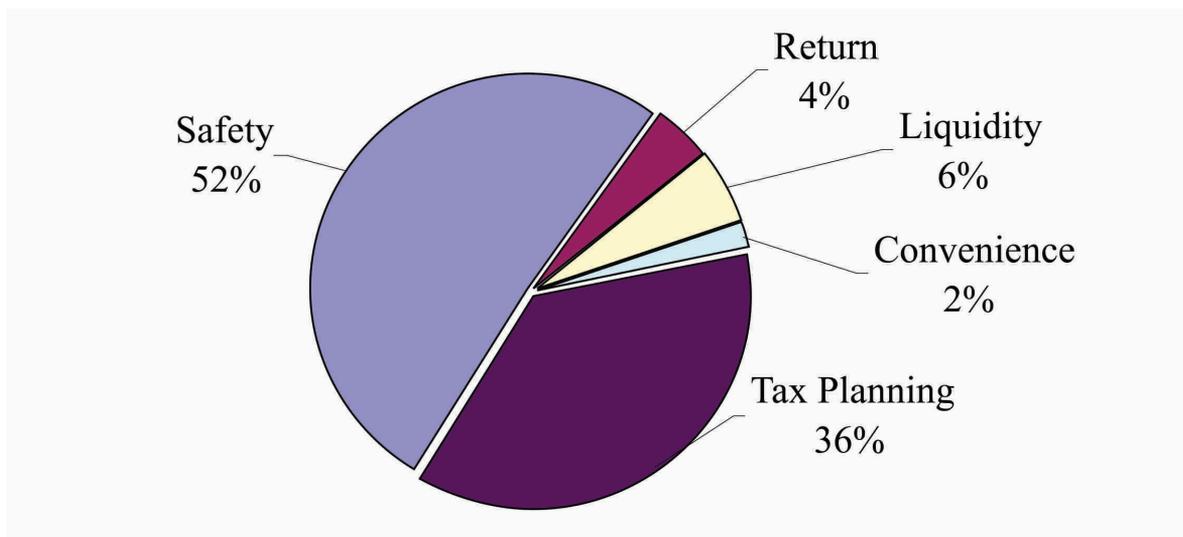
Interpretation: 52% of the investors prefer LIC for Safety followed by Tax Planning at 36%.

Table 5: Investment in Public Provident Fund

Basis	No. Of Respondents	Percentage
Safety	82	37
Return	60	26
Liquidity	07	03
Convenience	19	08
Tax Planning	60	26
Total	228	100

Figure 5: Preference for Investment in Public Provident Fund
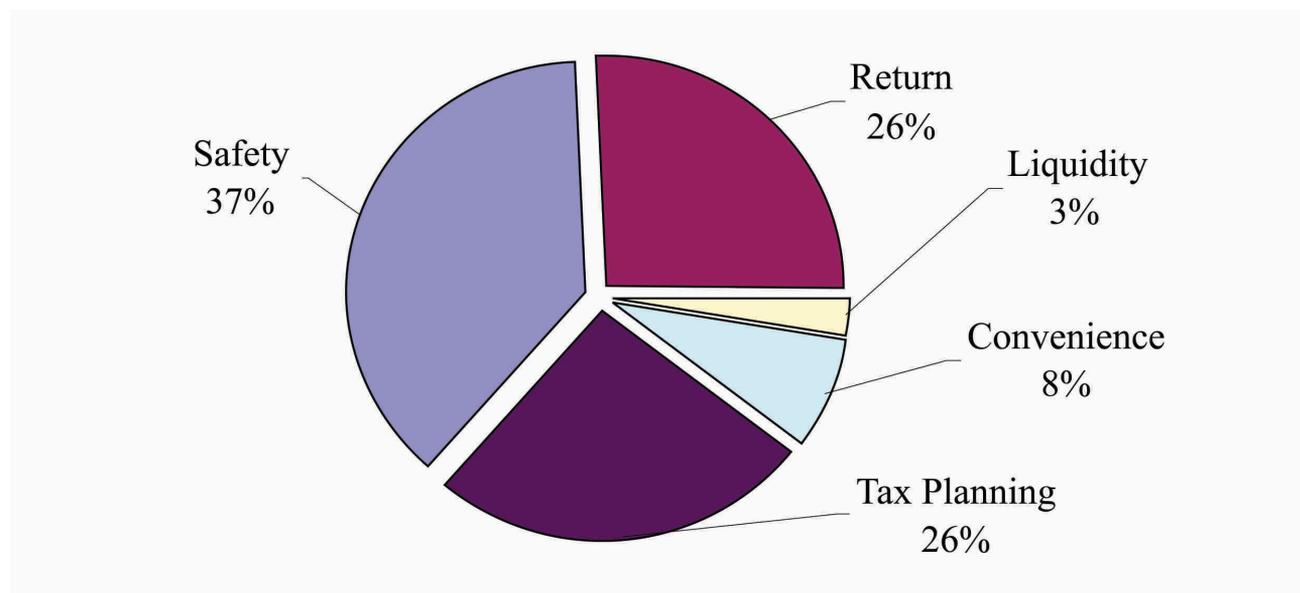
Interpretation: 37% of the investors prefer PPF for Safety followed by Tax Planning and Return at 26% each.

Table 6: Investment in Bonds

Basis	No. Of Respondents	Percentage
Safety	70	34
Return	30	15
Liquidity	18	9
Convenience	24	12
Tax Planning	62	30
Total	204	100

**Figure 6: Preference for Investment in Public Provident Fund**
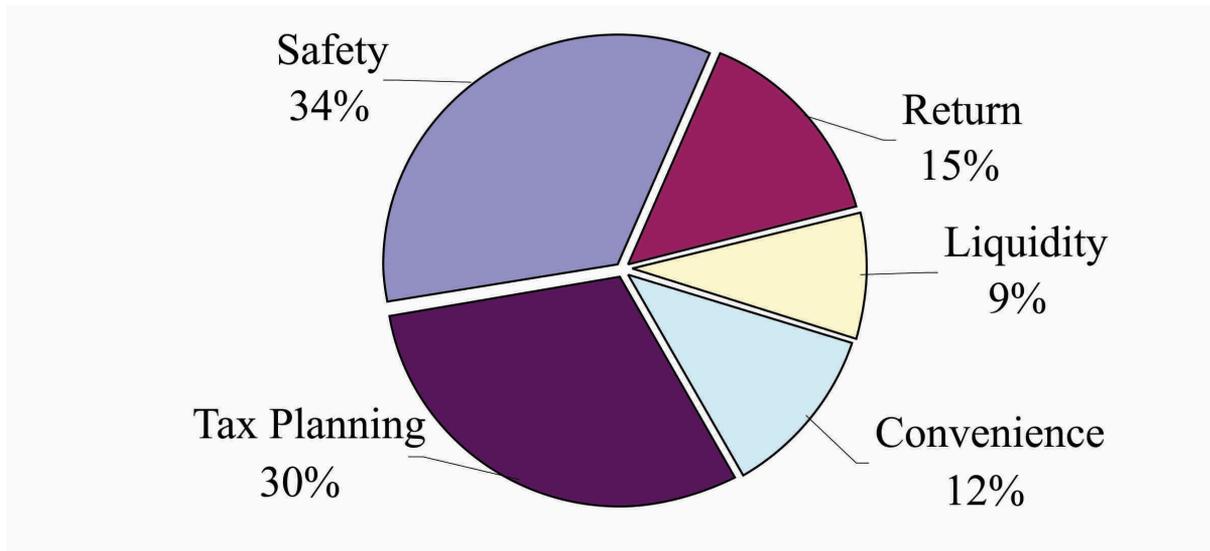
Interpretation: 34% of the investors prefer Bonds for Safety while 30% for Tax Planning.

Table 7: Investment in Mutual Funds

Basis	No. Of Respondents	Percentage
Safety	44	15
Return	101	35
Liquidity	26	9
Convenience	26	9
Tax Planning	91	32
Total	288	100

Figure 7: Preference for Investment in Mutual funds
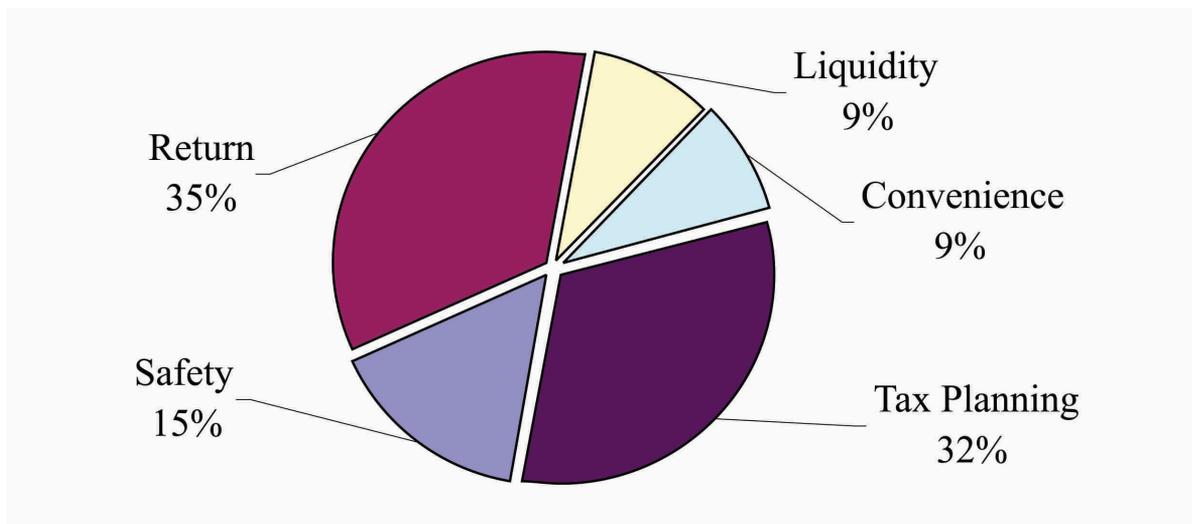
Interpretation: 35% of the investors prefer Mutual Fund for Return followed by 32% for Tax Planning.

Table 8: Investment in Real Estate

| Basis	No. Of Respondents	Percentage
Safety	25	09
Return	188	66
Liquidity	20	07
Convenience	10	03
Tax Planning	43	15
Total	286	100

Figure 8: Preference for Investment in Real Estate
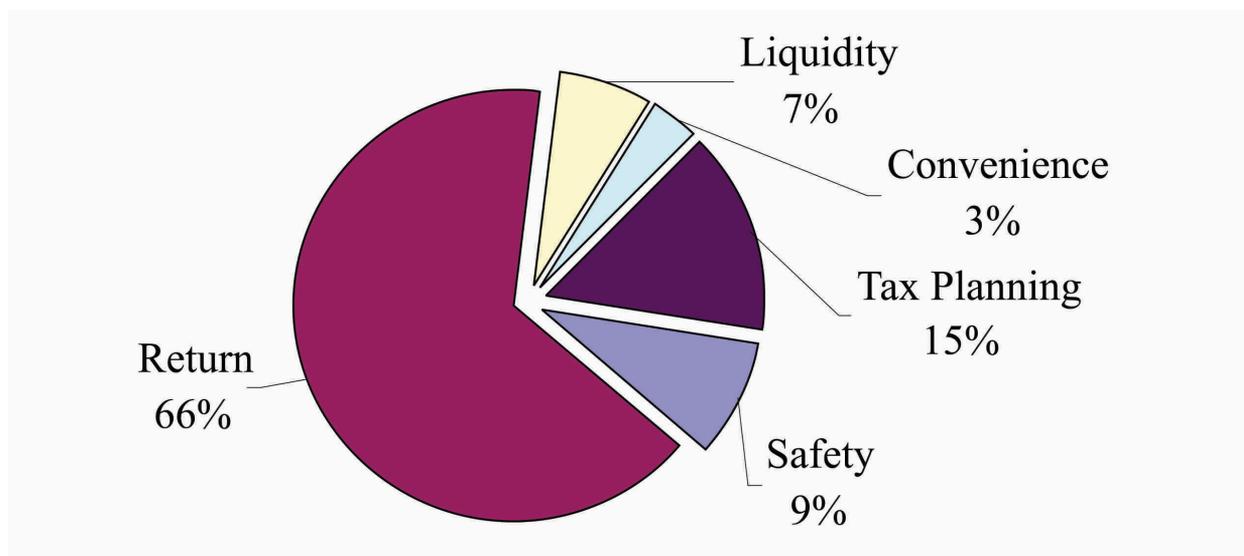
Interpretation: 66% of the investors prefer Real Estate for Return followed by only 15% for Tax Planning.

Table 9: Investment in Commodity Market

Basis	No. Of Respondents	Percentage
Safety	15	11
Return	60	46
Liquidity	48	36
Convenience	09	07
Tax Planning	00	00
Total	132	100

Figure 9: Preference for Investment in Commodity Market
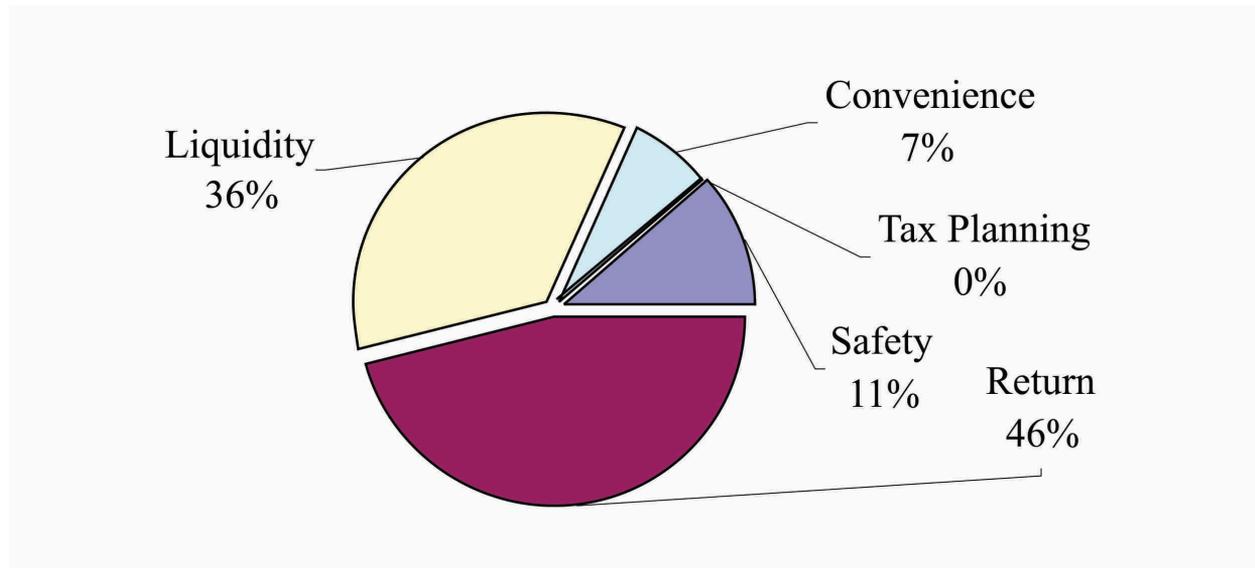

Interpretation: 46% of the investors prefer Commodity Market for Return followed by 36% for Liquidity.

Table 10: Investment in Gold

Basis	No. Of Respondents	Percentage
Safety	116	49
Return	74	32
Liquidity	25	11
Convenience	12	05
Tax Planning	07	03
Total	234	100

**Figure 10: Preference for Investment in Gold**
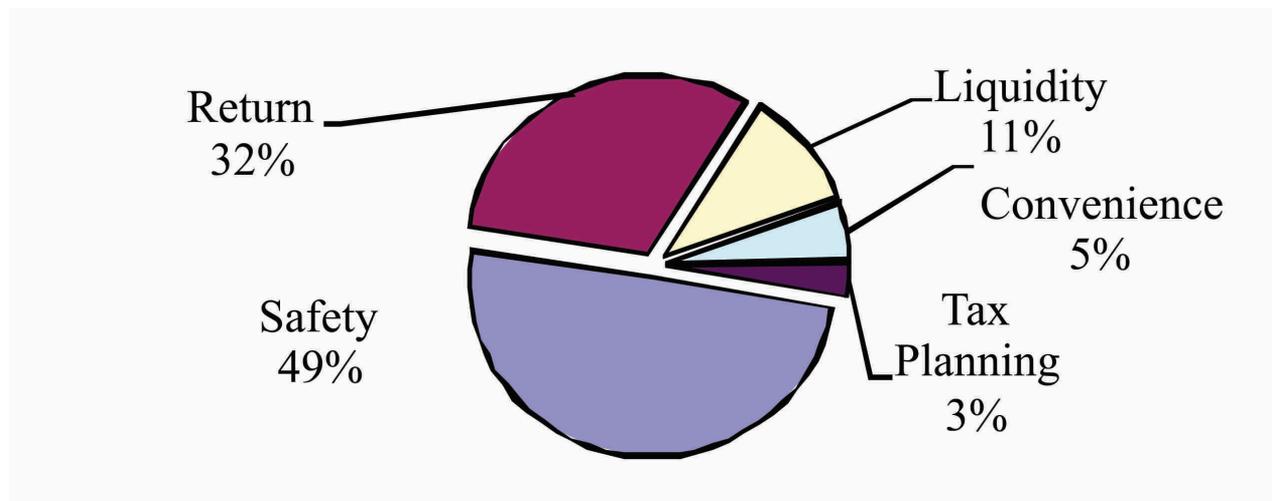
Interpretation: 49% of the investors prefer Gold for Safety followed by 32% for Return.

Table 11: Investment in Equity Shares

Basis	No. Of Respondents	Percentage
Safety	18	09
Return	120	58
Liquidity	36	18
Convenience	18	09
Tax Planning	12	06
Total	204	100

Figure 11: Preference for Investment in Equity Shares
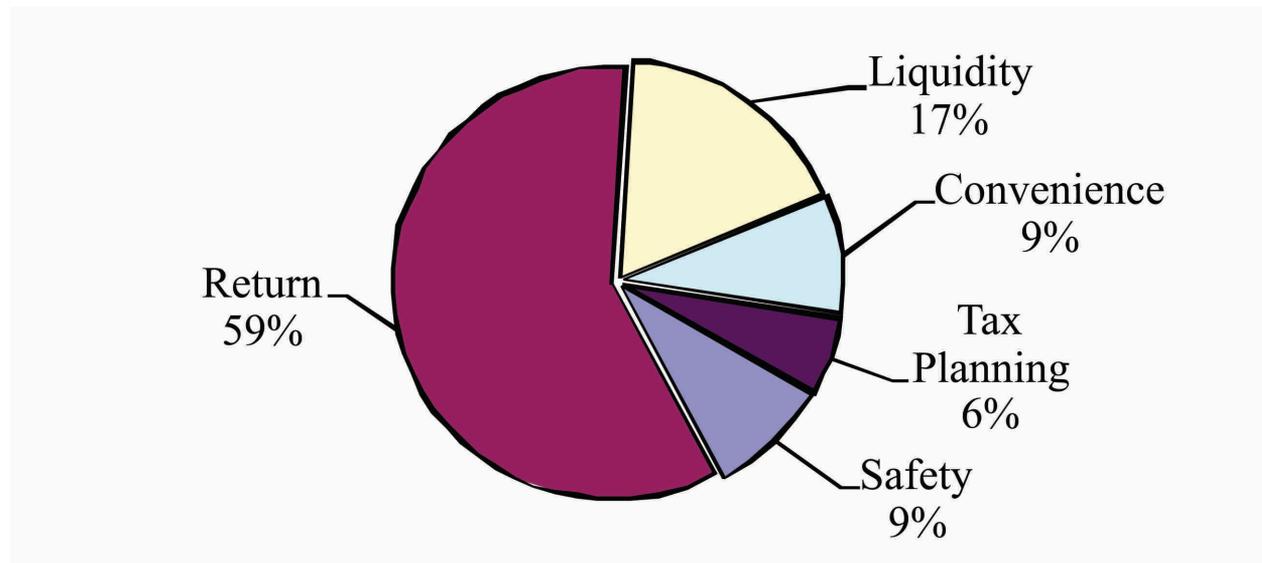
*Interpretation:* 58% of the investors prefer Equity Shares for Return followed by 18% for Liquidity.

Table 12: Investment in Futures & Options

Basis	No. Of Respondents	Percentage
Safety	12	11
Return	36	32
Liquidity	48	41
Convenience	12	11
Tax Planning	06	05
Total	114	100

Fig. 12: Preference for Investment in Futures & Options
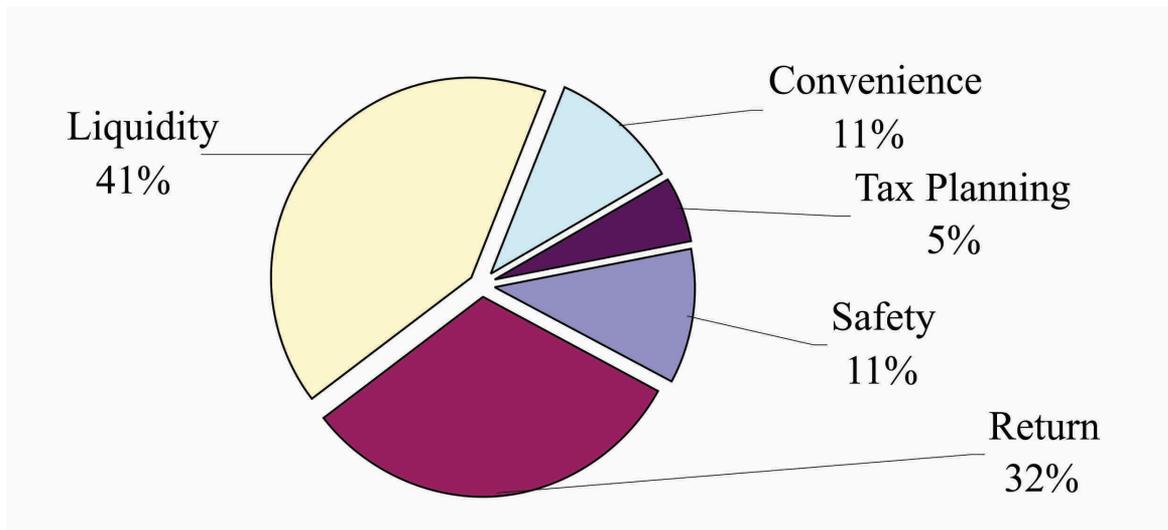

Interpretation: 41% of the investors prefer F&O for Liquidity followed by Return 32%.

Table 13: Investment in National Saving Certificates

| Basis	No. Of Respondents	Percentage
Safety	87	36
Return	30	13
Liquidity	12	05
Convenience	00	00
Tax Planning	111	46
Total	240	100

Fig. 13: Preference for Investment in National Saving Certificates
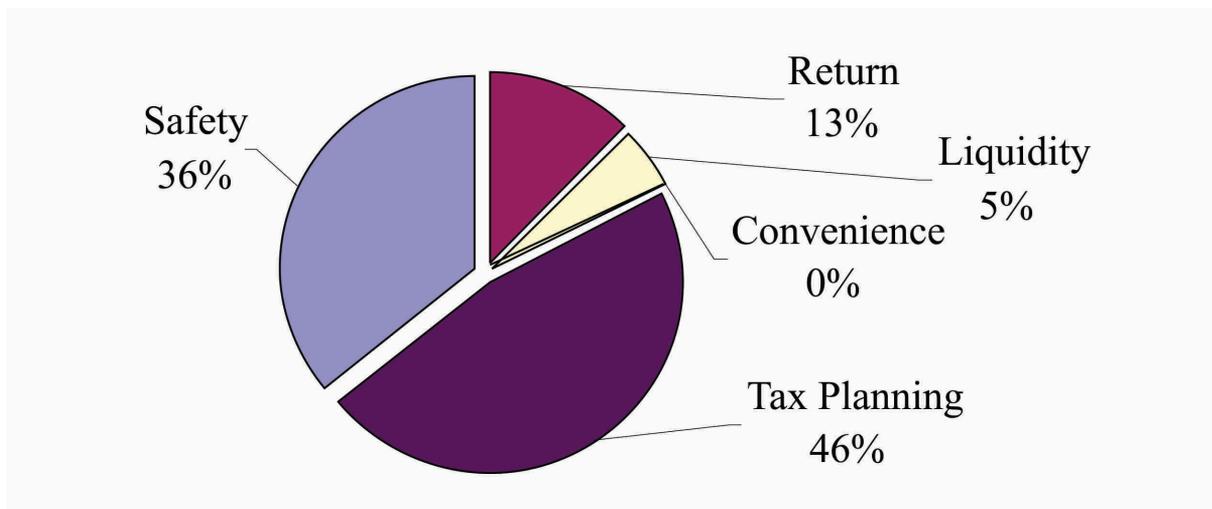
Interpretation: 46% of the investors prefer NSC for Tax Planning followed by 36% for Safety.

Table 14: Investment in Kisaan Vikas Patra

| Basis	No. Of Respondents	Percentage
Safety	94	41
Return	27	11
Liquidity	27	11
Convenience	16	07
Tax Planning	70	30
Total	234	100

Fig. 14: Preference for Investment in Kisaan Vikas Patra
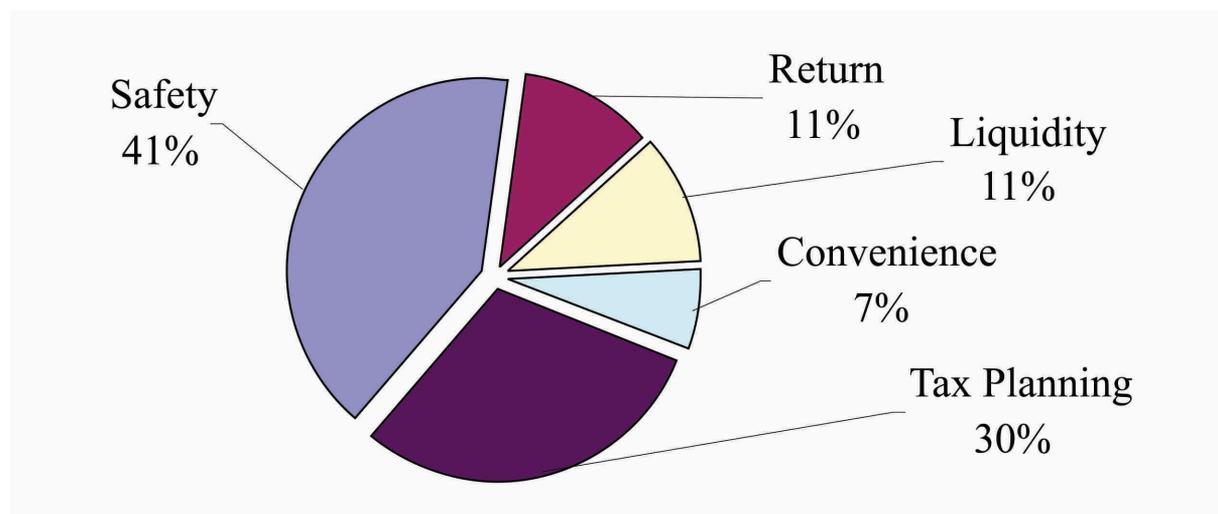
Interpretation: 41% of the investors prefer KVP for Safety followed by 30% for Tax Planning.

Table 15: Investment in Monthly Income Scheme

Basis	No. Of Respondents	Percentage
Safety	102	53
Return	34	18
Liquidity	12	06
Convenience	12	06
Tax Planning	32	17
Total	192	100

**Fig. 15: Preference for Investment in Monthly Income Scheme**
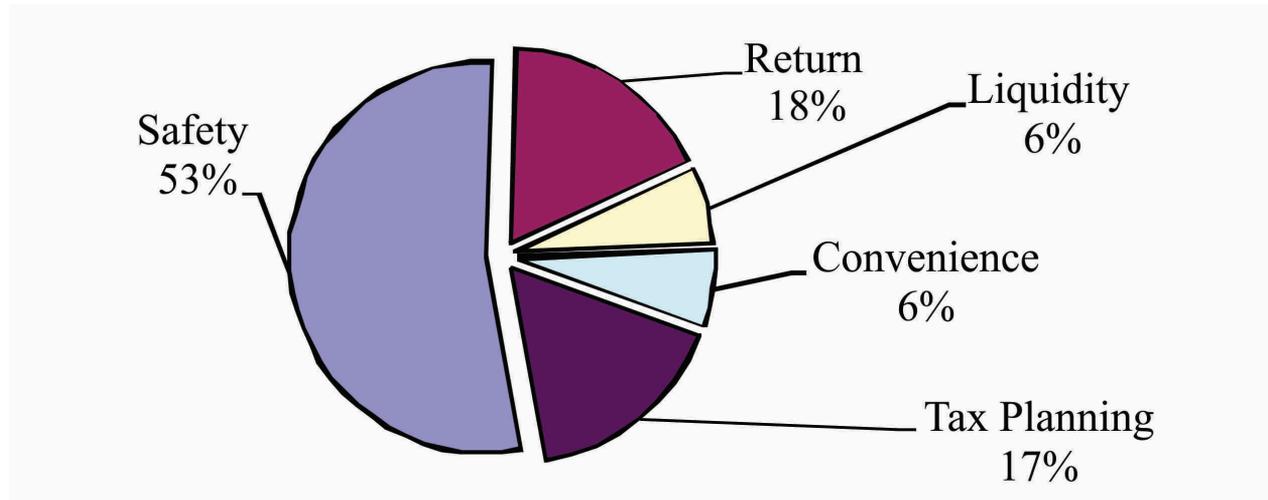
Interpretation: 53% of the investors prefer MIS for Safety followed by 18% for Return.

If Investors have been provided more funds then they would like to invest.

Table 16:   Mode of Investment if surplus Fund

Avenues	No. of Respondents	Percentage
Real Estate	150	50
Mutual Funds	70	23
Equity Shares	32	12
Bank	26	08
Gold	22	07
Total	300	100

Figure 16: Preference for Mode of Investment if surplus Fund
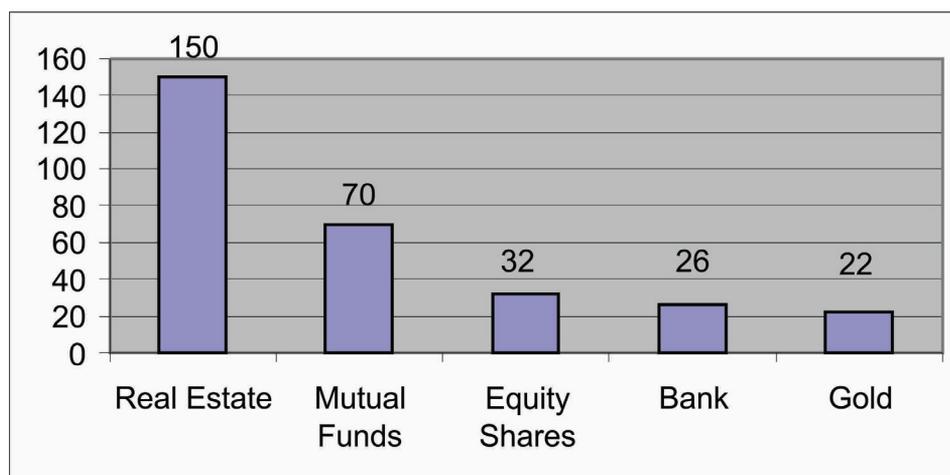
Interpretation: If investors have been provided more funds, 50% of the investors would like to invest in the Real Estate, followed by 23% in Mutual Funds and only 2% in Equity Shares.

FINDINGS

1. 100% investors are aware of Banks & LIC, while 96% aware about Mutual Funds followed by 95% for the Real Estate, 80% for the NSC 80%, 78% each for Gold & KVP, 76 % for PPF, 68% each for Equity Shares & Bonds, 64% for MIS, 56% for Others, and the least aware is Commodity Market & Futures & Options, which clearly indicates that Banks, LIC, Mutual Funds, Real Estate & NSC are the most popular investment avenues among the investors of Mathura.

2. 46% of the investors' overall and main criterion for investment is Return followed by Tax Planning (26%), and Safety(22%). It implies that investors generally invest their money for the return.

3. More than 50% of the investors prefer Banks, LIC & MIS for Safety, while more than 35% of the investors prefer Real Estate, Equity Shares, Commodity Market, and Mutual Funds for Return, while more than 30% investors prefer NSC, LIC, and Mutual Funds for Tax Planning.

4. If the investors have been provided more funds, 50% of the investors would like to invest in Real Estate, 23% in Mutual Funds and only 12% in Equity Shares.

CONCLUSION

After analyzing & interpreting the data received from the respondents, it may be concluded that maximum investors are aware about Banks & LIC investment avenues only. More than 80% investors are aware about Mutual Funds, Real Estate, and NSC investment avenues.

Following are the main bases of different investment modes, an investor thinks before investing:

Mode	Preference	Mode	Preference
Banks	Safety	*Real estate*	Return
LIC	Safety	*Comm. Mkt.*	Return & liquidity
PPF	Safety	*Gold*	Safety
Stock Mkt.	Return & liquidity	*Mutual fund*	Return & Tax Planning
Bonds	Safety & Tax Planning	*Post office*	Safety & Tax Planning

Looking from different perspective, it is also evident that the overall and main criterion of the investors regarding their investments is Return. Therefore, on the basis of Safety, Bank & LIC are the most preferred avenues of investment as it provides maximum safety. On the basis of Return, Real Estate & Mutual Funds are the most preferred avenues of investment as it provides maximum return. Similarly, on the basis of Tax Planning, Post Office Schemes & Mutual Funds are the most preferred avenues of investment. Therefore, the preference is given to investment in Mutual Funds amidst availability of other traditional investment avenues in the market.

Lastly, if the investors have been provided more funds, then they would like to invest in Real Estate because of its rapid growth. Therefore, on the whole, it may be concluded that the Real Estate is the most preferred investment avenue of the investors of Mathura. The Mutual fund has yet to percolate down as the preferred mode of investment in smaller towns and cities.

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REDEFINING PURPOSE OF EDUCATION — DEVELOPING A CURRICULUM FOR PEACE

*Ambika Talwar ***

EDITOR'S NOTE

Ambika Talwar is an educator, published author and artist, who has written poetry since her teen years. Her style is ecstatic making her poetry a "bridge to other worlds." She has also won an award for a short film at a festival in Belgium. She practices IE:Intuition-Energetics™, a fusion of modalities, goddess lore, sacred geometry and creative principles for wellness and wholeness. "Both poetry and holistic practices work beautifully together, for language is intricately coded in us. In resonance with our authentic self, we experience wholeness & wellness," she notes. In this paper, she shares her experience of developing a curriculum for Peace education.

Keywords: Authenticity, co-creation, creativity, essence, genius, innerstanding, justice, Peace, Peace Pole, wholeness, zazen.

INTRODUCTION

This paper is a result of my direct and multi-layered experience of teaching two peace-themed writing courses at a community college in the suburbs of Los Angeles, California. Pondering on what I really wanted to say, I asked myself these questions: What did this yearlong experience teach me about myself and about peace? What did I accomplish? What do I do next?

Firstly, I can say seeds were planted. And even though teaching these classes was a rocky romance but because our young feel a sense of anomie and ennui stemming from lack of real purpose, I make a case for peace-themed curriculum in spite of diverse objections to the impossibility of peace (as people know it). Peace is much more than we all realize, so its teaching and practice ought to be a natural part of all levels of schooling, for it requires a deep paradigm shift, truly a dynamic process.

Steps towards creating the course…

In December 2010, I met Uran Snyder, a peace messenger and member of the Japan-based World Peace Prayer Society, originally birthed as a religious community. To strengthen their peace work, they divided the organization and one took on the active work of peace making by designing and selling peace poles. In the last few years, the number of peace poles in the world has topped about 500,000. These poles are made of material that can handle the weather and stand as inspirers of the message of peace. A good number of these poles silently convey a simple message: *May Peace Prevail on Earth* (and its variations in diverse languages). At a seminar we both attended, Uran led a flag ceremony, which involved waving of flags of countries and calling out: *May peace prevail in….* (we added name of country whose flag we each held); I wondered if we could bring this ceremony to the college where I work.

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Uran said softly, "We can do it." Softness, as you know, is dangerous. Two weeks later, we met in my office and planned a 3-day peace event at the college to include film screenings with discussion, yoga for peace, and presentations by speakers on defining human purpose and values. I had set myself up.

I booked rooms for the presentations. I contacted speakers including Elza Malouf, Spiral Dynamics master teacher and founding director of the Center for Human Emergence; Mick Quinn, integral educator in Guatemala; Erika Faith, yoga teacher and others. Uran Snyder and I would present as well. Moreover, Uran had promised me two peace poles for the college. Naturally, I was moved with greater zeal to do what I could to bring something new to this campus, otherwise afraid of new ideas and challenged by diversity and difference! I thought an event such as *Creative Action 4 Peace* would instill a desire for creative change. I had truly set myself up.

Feeling like a missionary with a purpose to excite people about peace and its practice, I thought it would be wonderful to offer such an event at the college where I have taught all my adult life. However, wherever I turned I was met with resistance and apathy—may be even hostility. I was nonplussed—this is an educational institution, a place for learning and broadening horizons. Ought it not to desire opportunities for dialogue? Growth? Change?

But the college is set in a conservative middle-income town; some of our students are on financial aid, some are simply in transition, some in search. The strength of community colleges is to serve local community with opportunities to complete general education classes, explore diverse classes, and focus on a major, supposedly to keep things "normal." Real diversity does not flourish; what does is that which fits into the shoes of "multicultural," and if diverse, it is a narrow spectrum of acceptability.

Campus student clubs and committees turned down my request for support, including the Planning and Budget Committee, whose veteran members belong to every other important committee. Two days of wondering left me with one choice—*Go ahead, make it happen*! My speakers agreed to share their expertise ex gratis.

So I announced to the committee that we were indeed powered by Human Spirit. We were. So it happened. Fliers we created and plastered on campus announced: **Creative Action 4 Peace**—*Powered by Human Spirit*. Though attendance was low, it excited my students and we installed a peace pole, which reads: May Peace Prevail on Earth.

Small shift—One step. One step at a time!

Lessons of invoking peace…

Peace is certainly not a foreign concept, but its very idea instilled fear in college faculty and the veteran committees. Was it that ghosts of 1960's or 70's America would awake to take over the campus? What would happen then? *Nothing*. The architecture of the campus is such that a gathering would be effectively controlled. Furthermore, it is not a place easily excited by affairs of the world even though they are affected by it. It is somewhat insular and students are in deep stress these days with rising unemployment and "normal" family conflict—Life!

I learned a few things. One is to garner the support of some faculty (really?), of student clubs and committees (double really?). But, more importantly, I learned the following:

A - Peace is controversial. Some faculty were scared that Mick Quinn would raise controversy on campus. Mick and his wife, Debora Prieto, run a school in Guatemala for underprivileged indigenous children who have scant or no opportunities. He was going to speak on Skype from Guatemala. To a staff development committee, this was controversial. It is not that there are no Christian missionaries doing charity in poor lands. Mick and Debora together founded the Integral Heart Foundation in Antigua, Guatemala.

Mick spoke about how to follow your passion and offer your gifts to uplift others. My students were greatly inspired, not only because we had Mick speak from Guatemala, but also because his story was an adventure. An Irishman, who left Ireland, lived and worked in the US, studied integral philosophy, drove to Guatemala with Debora Prieto, and now runs a school based on integral principles to transform how the youth there create their lives.

The key word is "create." *Creativity motivates new experience in human development.* I might add making peace is a creative process of understanding many layers of one's own realities and how we can clarify and re-envision and merge our wants, needs, and desires so together we create systems where we can all live in dignity.

B - People are scared of peace more than of war. This might be perhaps because people have become so used to war economies and societies, they would not know what to do in the absence of war. After all, war keeps everyone in anxiety and budget cuts get steeper so everyone has to work harder and live wondering when the next pay cut would be imposed and watch prices of commodities go up.

Anxiety takes away your years and keeps you busy, so you can panic and be unwell and visit doctors to keep the pharma kings happy. Keep some part of the economy active. This is the neurosis that binds society. Elza Maalouf also commented on this when she arrived. Her presentation titled "*Science of Peace"* showed how to evaluate people based on their value memes and assist them in negotiating with groups with which they are in conflict. An internationally known spiral dynamics teacher, Elza meets leaders in Middle Eastern nations to negotiate understanding and dialogue.

C - People's apathy stems from them not really knowing what to do. It is confusing for many people to know how to shape a new reality. Apathy is easy, especially when you are not at the center of bombs and scarcity of a kind that exists in "other" places. Furthermore, dealing with budget shortfalls, job cuts, and hunger affects everyone and has certainly affected our students, most of whom need work and lack direction. But they are also influenced by a kind of late adolescent sleep. Walk into a classroom of pupils with glazed eyes and slouched spines, and you will see this.

D - People are also naturally skeptical. Maybe skepticism is a good sounding board, for it guides us on what is practical and possible. Goodness is more practical than its opposite.

Even though new thought systems have been active for decades being derived from ancient wisdom, systems of universality and preciousness of life and authentic experience, many schools shun such wisdom in favor of the old ways based on a rigid model of exclusion.

Open discussion and natural learning can inspire great success, but some systems stick to what they know perhaps weakening the learning process. Smart classrooms cannot make "smart" students; these are mere tools and now we learn that all lessons must meet accessibility requirements. Such rules limit possibilities and weaken structures and real matters get left out of the picture. Add to this news of wars and terror and the reality people live with is a narrow one. Naturally, people become skeptical about change, and peace becomes a value seen fit only for people in colorful tie-dyed T-shirts or in eastern garb on the fringes of society. The suited ones laugh at images of peace as someone sitting *zazen* saying "**Aum.**"

Such divisions suggest in our systems an inherent lack of *"innerstanding"* of our full human capacity and potential. Schools serve structures laid out by departments of education, on budgets based on some strange math to prepare students for phantom jobs.

Perhaps, if the system were to change to invite greater creative expression, we could create new ways of financial equity and sovereignty. Perhaps, this would enliven school systems. Perhaps, this would invite a better understanding of what it means to be human and we would all learn what success truly means. Perhaps, this is how peace, a dynamic process, can flower.

But, now, fear of scarcity is writ large in the faces of our youth who already experience a lack of purpose and direction in life. Perhaps, because structures become rigid after a while, schools seem slowest to change. People fear change, and we educators are becoming data entry workers.

The state of education is in peril. Everywhere. We need to re-envision the purpose of education somehow. *Everywhere*.

What is the purpose of education?

So I am led to ask: what is the purpose of education, other than to prepare people for self-knowledge through creative-critical thinking, gain employment, and contribute to communal enhancement? What is the purpose of Peace? Aren't the two related?

Firstly, I posit here that the purpose of education and of peace is for human beings to practice authenticity and wholeness, and to create a life built from this wholeness, a dynamic process.

Yet schooling processes take one away from one's authentic self by its methods of testing, which do not always engender creativity or originality, hence it limits one's potential. When students are overburdened, they cannot be

creative, and they cannot think critically.

We know that creativity and critical thinking are related for they invite the development of imagination and intuition. *Isn't creativity a higher form of critical thinking?* Note this experience from a class I taught 3-4 years ago. Discovering that all students in a writing class lacked an imagination by their own admission left me stunned for some moments. How could such a thing be, I wondered? Collecting myself, I offered an exercise, a simple visualization to clear blocks. Literally, in 3-5 minutes there was a change; the class became receptive not only to the learning process but also to writing. Most wonderfully, they felt connected again to that core vital to the growth of a human being: *the imagination.*

Without an imagination, a person is but less of him/herself. Isn't it through imagination and play that a person connects with his/her genius (the ability to generate). "Genius" suggests to give birth; to invite the birthing of, as it is rooted in "gene" or "genesis"; and a real "genius" is one who is at play. Play is here seen in its cosmic sense of dynamic engagement in an activity that generates surprise, wonder, original expression, and wholeness of being; it is a process whereby human beings learn they are part of all that is.

When children are discouraged from their natural genius and thrown into rigid systems (cultural, religious or corporate), they lose touch with their innate genius. Innovators and inventors are renegades who live on their terms once they have recovered from social systems of control. Unfortunately, there are people of great ability who use their skills towards destructive ends. What would it take for these people to cultivate an ethic of harmony principles so they can be constructive not destructive?

Yes, it is idealistic, and it would seem more so in these times that have continued to be bloody. But we do what we came to do, so we persevere…what else shall we do but? And why not with an invitation to be better than when we began!

This experience made me question again weaknesses in the education system that curbs expression of uniqueness, favoring homogenization as though each person must become a tool to an environment that is being controlled more and more.

So what is the purpose of education? Would it not be to co-create systems that arise in harmony and strength for we are so interconnected that we are essentially one or better yet oneness in its diverse myriad forms.

My first peace course…

On Aug. 16, 2011, I met my Critical Reasoning & Writing course students for the first time. I went over the course description with them, and they were excited, delighted, skeptical, and curious. They noted they had never before had a class of this kind.

We began by discussing what peace felt like, what were their images of peace. From them, I learned that peace felt like safety, like having jobs, like having enough to eat, like being loved, like knowing they are cared for, like compassionate listening, like life has a purpose, like they can do what they truly love, like they have a future, like they can be whole and well...the list was endless. I made sure to say that I did not (and do not) have the answers, but that we would discover them together. At best, the purpose would be to review our life conditions and how we make choices.

So we covered topics to do with defining peace, reviewing the work of various peace activists, peace as defined by various religions (very briefly), and we explored that peace is not absence of war, for conflicts occur and will continue. *Absence of war is but negative peace.*

Peace is not static but a dynamic process of continual negotiating with oneself and with others. This is so in personal or intimate relationships, in parenting styles, in education, in communities, for nations at war. Peace is not something just for "hippies" nor is it an image of serenity only, but it surely is hip. Truly. I was gratified to find how many people and organizations (at least 100,000) are in the field of peace building in the world. Making peace is a far more challenging path, for it requires discipline, a different walk. In a time, when people are continually being asked to raise their capacities and awareness of our relatedness and their ability to change is excited by possibilities, peace is a natural source of concern and of inspiration. When the world is being torn apart by greed and confusion, we might remember that the Native Americans organized their lives and social systems keeping in mind seven generations in the future.

Life is a prism and there are more perspectives than the one with which one is most familiar. Most of my students are Protestant, Catholic, born again, Jewish; some are Muslim, agnostic, Hindu, Buddhist, animist, atheist; some surely

are unsure, ecstatic, agnostic, spiritualists, wiccan, and even rapturists...(the list is lovely and long)! The idea here was to dispel biases, reconsider our perspectives, and suggest a way of reviewing issues from a values-based perspective. Towards this end, we discussed principles of social development based on understanding cultural value memes in us that influence our choices and decisions. (I am no expert in Spiral Dynamics, but even a taste of it proves effective in better understanding our interactions.) The students were excited about what was occurring in the class.

We discussed war as aggression, war as cultural creation for there are communities that have never waged war, marketing of war through images of heroism and sentimentality, industrial progress making weapons the biggest business, breaking up of lands, and also god bartered in the process of justifying war. In addition, of course we discussed assumptions, beliefs, facts, warrants, etc, aspects we need to review for critical thinking.

Admittedly, the warrant behind this course was that we are here as evolving human beings and the only way we can truly grow is to remove falsities from our lives. One way to do so is to question how we make conclusions, how we react and respond to issues. Instead of merely taking things at face value, we ask "Is this true?" and "How do I know this is true?" and whether the answers they get make sense or not.

Surely, about 50 -60% of individual, social, communal, global issues, confusions, illnesses result from people's beliefs in falsehood, incorrect perception, and blindly following others who whet their appetite for stories that may be torrid and horrid. Delving into fallacies can be quite humorous when we find that so much of our daily conversations are also peppered with fallacious statements. We know it always rains after we have washed our car. And if you don't agree with the war, you are not patriotic. And your happiness depends on a visit to Cosmic Hair Saloon…and so on.

I think we covered quite a bit. We also laughed a lot.

We read about Bishop Tutu's work on forgiveness as a process of healing. Perhaps you are aware that much work is being done through the process of "*restorative justice*," for, in order to bring about healing, one needs to understand the dynamic of violation and illness, then move to forgiveness and then to recreation as a healing process. There is also the process of NVC (*non-violent communication*), which is the practicing & expressing your needs and concerns without attacking the other person or communities, and a powerful process known as radical forgiveness.

The list goes on as the field of peace making includes various kinds of work being done by practitioners, activists, interventionists making inroads in healing diverse communities that have been damaged, and also in teaching people how to negotiate their livelihood. We are of course speaking of areas that are damaged by war, genocide, and mass rapes, understanding that we do not have the luxury of isolation—what happens 5,000 miles away or next door affects us.

So what is the relevance of this information to a group of 19-35 year olds and returning adults? They each said without a doubt that their lives were now different, that they had become more thoughtful and aware of the relevance of their lives and their connection to the world that they did not know existed.

A key point is to be reminded of the relevance of each of our lives. Somewhere I am about to say that students matter; I am adding here that studentship must be seen differently by teachers, institutions, and by students themselves. We must all participate as integral parts of each other as we re-co-create a future.

It was just another writing class, but this group of students was remarkable in that any assignment I created for them, they did without grumbling. They outdid themselves in their last project, which was to make a 5-min cell phone video describing their progress (I had given an outline to follow). On the day of the final, we shared their videos and Powerpoint presentations. It was the most gratifying final I had ever experienced.

These are comments from the written portion of the final

(Names changed for privacy)

Anira wrote: The purpose of critical thinking is to unlearn old habits while receiving new ones…. Discovering my greatest vision/essence/gift took time because I needed to fully understand who I was myself before I could find my new reality….My action for peace is that I want to continue to fight for peace and justice in the world against discrimination and prejudice towards those that are in need of help and love and compassion.

Axel wrote: Through clear thinking one can envision the future better through a pattern of reasonable actions and

even stronger words. All things considered I have greatly benefitted myself by taking English 103 and would highly recommend it to anyone seeking an emotional and spiritual revitalization regardless of your religious beliefs. It is not a religion to critically think, it is simply a way to help better the world starting with your self.

Icaria, who titled her final journal "Enlightenment," wrote: To share love, compassion, comfort and encouragement, one does not need a formal education. What one does need is time, and a genuine love for mankind….it is my belief that knowledge is never wasted, especially if it is shared.

Nadia wrote: Before I began Eng. 103 with Prof Talwar, my mind was open but lazy….While there were moments of extreme frustration during the course of this semester, I am walking away…with a great sense of accomplishment and growth as an individual. In reading about all of these incredibly inspirational people, I found myself becoming aware of my own inner humanitarian….I am leaving reflecting on people like Gandhi, Suu Kyi, Bishop Tutu, and Thich Nhat Hanh, who have inspired me to be influential in the change that this planet needs in order to flourish.

Jusuph wrote: I have been wandering for a long time in search of meaning, and through all of my experiences I believe I have found my purpose….I started…the fall semester with curiousity at what this English course would entail. To my surprise it was a great deal of work, but I enjoyed every moment of it. The curriculum challenged many preconceived notions…. War, peace, forgiveness…made me ponder what I could do to make a difference.

Mike wrote: I am truly grateful and honored to have been able to take this class and…learn more about other civilizations than the one I live in…. I need to be more open minded and take into account other people's feelings and thoughts on issues and not automatically assume that mine is the only way and that many before me have ideas and know how to do things much better and more maturely than I.

ChukAmeka wrote: I have this false image of myself as mostly a human being (human body). I did not know what it is to be truly a human being-spirit being…. New Reality: I am spirit being. I am infinite light, infinite peace, infinite love, and infinite justice…. I will gain knowledge and wisdom so that I can teach, educate and expose false beliefs and ideas in the world…. I will be a peace maker in my family. I will show forgiveness no matter how hard it is.

Dahma wrote: As I can recall since we…started this course I had some pretty negative feelings about peace, I didn't think it was possible in the world we live in today…this class…completely changed my point of view on not just peace but life in general. I have come to understand that peace does not mean not engaging in war but it is far more complex than that, it is also an active process that must be maintained rather than something we can take for granted once we have it.

Ilianane explored in great detail her experience of the class and based her answers on specific statements I had made; I now know some people pay particular attention. So I chose this point from her paper. She wrote: I began to see that upon my understanding of material and peace studies…, my innate ability in successful conflict resolution was not to be overlooked or underminded (sic), but something to embrace as a gift I can offer to others. Perhaps, what I've admired and grown deeply fond of in Buddhism and … Mahatma Gandhi is the emphasis of compassion and understanding in order to bring change….

Nalin wrote: Many adults told me I couldn't graduate, get a job, be respectful or even be a good son. All I did was look into their eyes with disgust, not at them but at myself because of my irresponsible actions….it took me a long road to get where I am now but it was worth the hardships and struggles…. As a result I created my vision of peace, which is for everyone in this world to co-exist without any major problems for everyone to depend on each other from time to time. Also my action for peace is simple: contribute my art to society in order to open people's minds and to see another perspective of life in the same manner as Banksy does ….

Chelsea wrote: My changes for the world is to take care of the strong women from all over and bring peace through health in society… it is what I believe I can do and what I would enjoy doing.

Hina wrote: There is more to photography than glamorous and glossy portraiture or moving documentary work that captures historical moments in time, and there is more to peace than protesting war and violence. I learned that peace is a complex science, which involves critical thinking, and especially thinking for ourselves in order to find new solutions to conflict which will benefit everyone. Coming to peace takes loyal actions of civil disobedience…as taught by Gandhi, to counter violence and destruction….My actions begin with photographing ordinary people who are making a difference in their community…. My vision for peace is to photograph other fellow Bodhisattvas and inspire others to become one

as well.

Aladine wrote: Luckily I was able to learn what the true meaning of peace is and what it is not. Peace is not a mythical place where everyone lives in perfect harmony, content with what and where they are. Peace is dynamic, a struggle towards achieving an understanding where everyone can coexist. During the course of this class I learned that peace often comes from the most unlikely of sources, from children addressing the UN to mothers in markets looking for a safe place to conduct their business; from warring tribes, to political activists. The common thread in each scenario is the drive to be free of oppression.

Metta wrote: I have recently declared my Bodhisattva as one that is out in the trenches fighting for what's right, teaching those that need to know, and providing for those in need. I am a peaceful man, so it will be in the form of servitude and with an open heart. As a citizen of this community, I have a responsibility and a duty to help others in need and live in a manner that doesn't take away from others' happiness. This is me, this is my life and what I live for…I live for others, some of us have to.

Gounay wrote: I realized that the actions of one individual can be the start of a whole new era. That it is possible to make changes to a society that would dare to rob the human rights that all living people are born with. I also learned that it was possible for people from two completely different cultures to get along with each other given the right environment, and that it is not impossible to break the culture barrier.

So the celebration came to an end.

My second experience was not as glorious, but it challenged me in a different way. Here was a class that was not open to these ideas, so I met with great resistance and even disrespect. Most students came to class unprepared, did their assignments with half-heartedness, and some challenged basic ideas, and their reading level was less sharp than of the previous class. There were days when I felt unsafe going to the classroom. I had figured out who was the source of the unkind dynamic in the class—a male with a strict upbringing who did not have much of a voice in his family so the class became his arena of projections.

One day I decided to let go of results I had desired. I shared with them that I was there to do my work, and they could do theirs or not, and I was fine with their choice. I would not share more information as I had done the previous semester. After all, as they are adults, it would be their choice and responsibility. This approach magically eased the situation.

When I handed them the final assignment, there was some grumbling, but even they surprised me on the day they presented these projects. Even here transformation had occurred. The male in question said there had not been any change in his thinking—a statement he had not realized would be seen as an admission of his own limitation and making trouble in class. But another student got it after a one-on-one dialogue with him when I shared my insights about his potential; I revealed a message in his heart. He could build a business that would also open doors to young children in need, and I expressed that it is quite all right to make money.

Seeds found a place in the ground of being. What happens later I cannot say or know, but I can envision and desire. I know that people follow the destiny and karmic pattern they create.

Why Students matter…

We can each make a difference if we are true to our greater purpose. And we know how we nurture our students and their vision of and for life matters most deeply. Students matter and we must invite their best while we also share out best. It is our responsibility and purpose to enliven and raise the bar, so that students can more readily come in touch with their innermost passion and authenticity and reveal their unique capacities—only then can we stay inspired by our work, by ourselves, and by each other.

When we tap into our greatness and see the greatness of others, we are illumined by each other's illumined presence. Let us wonder then if learning isn't about illumining this richness, for "*educare*" means to draw out. And for this to come about, learning systems and environments cannot be founded purely on objective analysis and testing, but they must be creative, global, and cosmic. Let's draw out the light in each other.

It is time to form networks of learning communities made of 8-12 people who meet over issues that matter. At a peace potluck on the UN International Peace Day, 21st September, 2011, I had students work in groups of three. Each was

to speak to the other two what peace meant to them and how they would make it happen in their lives. They were teaching each other. This is a way to empower them. This was just a taste of what a learning community ought to be: peer groups run by peer groups who might network with other peer groups over related or diverse themes.

What if we encouraged creative ways to invite students to be active participants in their own learning so they are validated, become responsible and excited about their richness and strengths? Lack of such validation corrodes our understanding, which is at the core of becoming (realized) human beings. Imagine our potential to determine our collective unfolding, one that engenders joy rather than the stupidity of violence and cruelty.

When Elza Maalouf presented at my college, she asked each of us what peace meant to us. While some people noted peace is about getting along with each other, about developing compassion, about protecting and guarding our environment, my answer was simply that peace was about fulfilling my human destiny and purpose. This point triggers the question: what is our destiny and purpose? Of course, no one has just one purpose, for it continually unfolds and redefines itself. We make the mistake of thinking it is just one.

To change the world, we must re-inform education at all levels, whose purpose is to invite our greatest potential and creative capacities. This is the purpose of peace, a dynamic not a static process of building harmony and reverence for life at all ages of learning in all communities, for us to create together a paradigm that is already emerging and seeks its own space. It has to be birthed in us, so we may claim our wholeness and authentic experience. Let us be reminded of this in the words of Jiddu Krishnamurti: "*No leader is going to give us peace, no government, no army, no country. What will bring peace is inward transformation, which will lead to outward action. Inward transformation is not isolation, is not a withdrawal from outward action. On the contrary, there can be right action only when there is right thinking and there is no right thinking when there is no self-knowledge. Without knowing yourself, there is no peace.*"

Let me present to you Jake, hero of the film Avatar. Jake finds his wholeness among the Navi, the Blue people, in nature and in sacred ways, leaving his rigidly controlled military identity behind. Now this hero is you. How will you break your bondage to violence, confusion, betrayal and limitation? How will you become that principle of Love, which we understand is our destination?

If the purpose of peace is singularly significant: to bring us to wholeness, to Essence, to Love, then you decide how we must transform so we become free of inner and outer strictures and can self-knowingly act in accord with the greatness which is inherent in us.

Imagine yourself as dynamic, whole, radiant in Essence! Would you not conclude that peace is truly seductive? That peace is generative! And you, too, might be!

Think about it.

Peace into Flowers

May this morning's peace

blow in all the right directions;

not away from but into hearts.

May the curve of question

be a cowl of protection;

from wind's cold dust today.

May its legs walk always

in beauty's wonder so world's

grace spring up like flowers.

– Ambika Talwar

COURSE MATERIALS

TEXTS

1. Barash, David P. (2010). *Approaches to Peace: A Reader in Peace Studies*. New York: Oxford University Press.

2. Hunt, Scott A. (2002). *The Future of Peace.* San Francisco: HarperCollins (Excerpts).

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FILMS

Grave of the Fireflies. Dir: Isao Takahata. © 1988

Emerald Forest. Dir: John Boorman. © 1985

Milarepa. Dir: Neten Chokling. © 2006

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AN INTERPRETATION OF THE PHILOSOPHY OF KARMA IN NAYANTARA SAHGAL'S *A TIME TO BE HAPPY*

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ABSTRACT

*Nayantara Sahgal is one of the distinguished Indo-English writers who wrote in the stream of national consciousness. The present paper provides an insight into the interpretation of the philosophy of Karma as the protagonist in the novel, **A Time to Be Happy**, begins to identify his roots and realize that it is the time to be happy. The novel evokes realistically and vividly the immediate pre-and post-Independence era. The novel gives a graphic account of the turbulent period when the nationalistic fervor was at its peak and a wave of Gandhism swept the country. Rather than presenting dull rhetoric about the Gandhian thought, the novel presents a gallery of characters, who feel on their pulse the charismatic influence of Gandhian ideas and values.*

Keywords: Dignity of labour, Gandhian ideas, identity, Karma, Nationalism, Self-discovery.

INTRODUCTION

Nayantara Sahgal deals with problems caused by a changing order. She presents new philosophy in her novels including one's own identity and roots. The novel ‚A Time to be Happy, is based on the character of *Sanad Shivpal*, the son of a rich man, a typical product of a public school, an executive in mercantile firm and a good tennis player. Most of his problems are the problems of the west-educated boys returning to India and encountering in him the conflict between the two sets of values.

This novel offers a more faithful picture of the period of independence and tells about the Gandhian movement during the forties. *A Time to be Happy* embodies the enthusiasm and starry-eyed optimism of India just after independence. Gandhi represented the fine flowering of Hindu heritage.

The philosophy of Karma itself can be seen as encouraging passivity if man's present life is seen as the result of his past action. However the human beings should take it as a challenge according to their capabilities to shape a better future. There are "*two opposite tendencies that create the pattern of Indian life: a forthright sensuality existing side by side with a stark and stoic resignation. Similarly other opposing tendencies exist side by side: Violence and non- Violence, materialism and spiritualism, acquisition and sacrifice, enjoyment and abnegations*". [1]

A Time to be Happy is the only novel which has the pre-Independence context as parts of its background. Nayantara Sahgal favors Gandhian philosophy of '*Karma*' for the growth of the people in all realms- social, economic, religious and political. In the changed context, India was marred by violence, caste and class conflicts, regionalism, popularism and unscrupulous craze for power and only a rooted philosophy of *karma* had wherewithal to minimize the cacophony and violence.

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The Main Study

A Time to be Happy is primarily concerned with the socio-political life of the turbulent period of Indian history just before the advent of independence. *A Time to be Happy* is really a story of Sanad, the son of a *zamindar.* In spite of his western education*,* Sanad has a profound respect for tradition. He is aware of the political and social forces. But Sanad is shown as "*nearly English young man brought up to be a success, puzzled and uncertain about his future*".[2] Here is awakening of Sanad's conscience and his attempt at and success in self-discovery and identity. Sanad joins the English firm of Selkrik and Lowe at their office in Saharanpur and cultivates western value. Sanad learns Hindi and spinning and contemplates to switch over to dhoti-kurta style of dress. His employer, Mr. Trent notices all these activities and warns Sanad but he boldly informs him that nothing is wrong with his activities and the steps which he has been taking are only to familiarize himself with his own country. He marries Kusum. After his marriage to Kusum, who comes from a nationalist background Sanad's main concern is how to regain his roots. Nayantara Sahgal presents through his character the conflict between Eastern and Western values. He is fully aware of his dilemma of being rootless. He mourns his fate. He gives a clear expression to his sense of isolation:

> "... *It is a strange feeling to be midway between two worlds, not completely belonging to either. I don't belong entirely to India. I Can't. My education, my upbringing, and my sense of values have all combined to make me un-Indian. What do I have in common with most of my country men?"* [3]

Sanad is so much troubled at his rootlessness that he even declares to resign from the British firm where he is working. By learning Hindi and by spinning homemade cotton yarn, he finds a feeling of belonging to his roots. He comes to have a healthy respect for tradition and overcomes trauma of rootlessness. Sanad has the talent to be happy.

One of the main aspects of the works of Nayantara Sahgal is her concern with religion and religious attitudes in which she believes. By the sixth century B.C., belief in metempsychosis developed into the doctrine of the transmigration of soul and the law of Karma (literally 'deed'); the law that one's next life is a causal extension of one's deeds performed in the past and present lives. All living beings are thus deemed to be self-trapped in the eternal cycle of birth, death and re-birth (*Punarjanma*) until *moksha* is attained through intelligent action and meditation.

> "*The universe and its sub-system including human society were seen as organic wholes in which each jati (on the cosmic plane a form of life, on the social plane a class or community) has a specific task (dharma) to perform. Only in the faithful, dispassionate performance (niskam karma) of this duty can an individual acquire merit and a higher station in the next life".*[4]

As the narrator in the novel explains, "*the central philosophy of Karma itself can be seen as encouraging passivity if man's present life is seen as the result of his past actions".*[5] However, the doctrine can also be taken as a challenge for it is within human capability to shape a better future. Further V.S. Naipaul describes:

> *"Karma, the Hindu killer, the Hindu calm, which tells us that we pay in this life for what we have done in past lives. So that everything we see is just and balanced, and the distress we see is to be relished as religious theatre, a reminder of our duty of ourselves ,our future lives.*[6]

Dr. R.A Singh observes Nayantara Sahgal's first novel *A Time to be Happy*, based on the central philosophy of Karma can itself be interpreted to support two ways of life. On the one hand, it encourages passivity for man's present life as the result of his past actions, on the other it is a challenge for human power to create a better future for himself. The narrator in this novel places responsibility on the individual. Similarly other opposite attitudes exist side by side; violence and non-violence, materialism and spiritualism, acquisition and renunciation are all part of traditionalism. The division between illusion and reality, non-attachment and inhumanity are all related to tradition. Nayantara Sahgal's sense of tradition is accompanied by a sense of genial tolerance and a belief that traditional faith can coexist with a liberal and enlightened attitude. It need not be an inhibiting factor in development of life.

Maya seems as a contrast to the traditional ideal woman in the tapestry of this novel. Maya is the *Pativrata*, the self-negating Indian Hindu woman. Maya Shivpal at the age of sixteen was married to Harish Shivpal, a flamboyant, extravagant and anglicized man. For Maya, marriage was doomed from the beginning, chiefly on account of the opposite personalities of her husband and herself. She had the cool purity of the eucalyptus, as compared with his extravagant *gulmohar*. She was the mirror-smooth lake to his rushing waterfall. The marriage had all the enviable facade money could buy, everything that was considered important by the world. But there was lack of fragrance or the productivity inherent

in a living breathing plant. In short, it was a sterile marriage, leaving them arid. Maya is highly individualistic but still bound by conventions. She is the woman who does not fight, defy conventions, justice and attain individual fulfillment. Maya is silent victim at the altar of marriage. She suffers because she refuses to submerge her individuality and cling to her personal identity at all costs.

Maya feels "*Whether we live or die is not important unless it is important to someone"*.[7] She considers the most important thing in life is emotional response and which she is unable to receive from her husband. Krishna Sharma remarks:

"*The Indians bear everything in the name of fate and Karma, because Hinduism professes obedience as a paramount duty, it does not equip and encourage people to make choice and value judgments, in times of crisis. A Hindu is not responsible to anyone except himself and his God. Therefore, he rarely acts or reacts objectively for the good of society or country"*.[8]

Nayantara Sahgal's novel deals with eternal search for freedom-freedom to express themselves, freedom to be their own selves. Ammaji, Govind Narayan's mother is highly individualistic and refuses to submerge her identity into that of her husband's. They belong to two different worlds-he is an indolent, pleasure-loving man and she disdains luxury and resists his efforts to mould her to his liking. "*She had been in her youth, a woman of character, at a time when character was not admired in women of breeding"*.[9] She is proud of her nation and its culture and is pained to see Harish and Sanad ape the Western culture. She is neither orthodox nor against modernity. She wants that younger generation should be aware of their own background where their roots lie, even while learning Western education. She is pained to see them transformed into strangers. She has disapproved her husband's way of living but continues within the fold of family. She has the spirit of independence that makes her realize the value of self-help and dignity of labour.

Sohan Bhai, a Gandhian freedom fighter, involved in the Quit India Movement (1942) in Bengal. He runs a home for children orphaned during the Bengal famine. Sohan Bhai and Kunti Bhen, deal mostly with upper class family. Hence they are Khadi clad workers. Social work symbolizes a way of life where duty is more important than happiness. Sohan Bhai is a follower of Gandhian ideology. Mahatma gives him a sense of direction. He had not given him any conventional balm, but sent back to the misery of the people made him aware that he still had a feeling within him. He would decidedly tend to the injury to his body or satisfy hunger. He told him:

"*Even if you are interested only in yourself, then you are interested in: a fragment of humanity and the way is open for you to reach all human creatures. Do not die before your death"*.[10]

Through Sohan Bhai, one learns of the all-encompassing movement launched by Gandhi to arouse and uplift the people. The impact of the Gandhi's ideology was so deep that Sohan Bhai makes the whole of the country his home. Gandhi's message cuts across simplistic social, political or spiritual, formulations. There is rising extremism, fundamentalism, obscurantism and populism. There is ceaseless campaign against the evils of drinking meat-eating and to get vaccinated against disease.

The characters of Nayantara Sahgal decisively and responsibly move around all walks of life, private or public. She presents self-imposed helplessness to the inadequate creed that these people live by. In diverse ways does religion affect the action of human being and far from becoming a creed of action, when it is in the hands of the unscrupulous; it becomes a tool of exploitation. Nayantara Sahgal believes that religious leaders try to confuse issues by equating caste with Karma. This confusion made the Hindus resign themselves to their fate. Religion becomes a tool of exploitation due to the wide- spread ignorance and illiteracy in the society.

For Nayantara Sahgal, religion is "*the awareness of the good*". It alone is beneficial and has the ultimate value. This awareness is taken to be universal and dynamic.

CONCLUSION

The challenging aspects of the theory of Karma are provided by the narrator in this novel. It presents the belief in Karma as the possibility of framing one's own future one-self.

In the novel, Nayantara Sahgal gives message of '*nishkam Karma*' especially the '*Karma*', the dynamic aspect of action. The novelist visualizes a reinterpretation of Hinduism which would enable people to participate actively and responsibly in the happenings around them. The way out is to emphasize the challenging aspects of the theory of Karma

along the lines provided by the narrator in *A Time to be `Happy*. It would involve people in what is here and now.

Mahatma Gandhi believed in Karma as the source of all values and as a symbol of all good. The narrator in the—novel has been seen in his capacity as both thinker and doer. Nayantara Sahgal reveals her protagonist fighting valiantly against repressive forces -political as well as human - inspired by action oriented creed. The philosophy of Karma- rejection and rebellion against oppression seeks to bring happiness and redress from the evils of social life.

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Literature

A QUEST FOR THE UNKNOWN: KAMALA DAS AS A POET OF BODY AND SEXUAL ASPIRATIONS

Rajni Kant*

ABSTRACT

Kamla Das (1934- 2009) expresses through her poetries the failure in love and the longing for the carnal pleasure, as the apex of love. Living in a closed society, Kamla Das was bold enough to portray the theme of sex and love for her audience inspite of 'narrow range of experience'. She did not compose for metaphysical or literary quest. All her verses overflew while she was trying to woo a man of her choice. Therefore, her poetries are human, too human and catch our imagination for its quality of honesty and frankness. The present paper is an attempt to focus on the theme of body and sex in the poetry of Kamala Das.

Keywords: Homosexuality, iconoclast, pubis, Wasteland.

INTRODUCTION

Sex has been one of the most pre-dominant themes in the works of Kamala Das. Time and again she exploits this theme in delineating the relationship between her male-female characters. Unlike other Indian women writers, she does not resort to oblique or indirect reference to sex or love-making, rather takes up a bold and hitherto unexploited approach towards sex. As once stated by Wordsworth that poetry is the spontaneous overflow of powerful feelings; Kamala Das epitomizes this utterance and let loose a series of emotions which find place not only in her poetic works but also her short stories and novel.

For rendering colour and life to her expressions, Kamala Das chooses words and the language which has a uniqueness of their own. Though, for a first time reader, she may turn out to be more explicit and going little overboard in her treatment of sexual love, a careful and minute study of her works will leave her readers smitten with her charisma. When her autobiography was published in a serialised form in the newspapers, it took the prudish Kerala society by storm and created a lot of furore in the middle class social circles of the time. She was pressurised by the people around her including her father, then the Managing Director of Malayalam daily *Mathrubhumi* into stalling her publication but our writer was too courageous to be intimidated by these antics. She has a free and indomitable spirit which is truly bent upon asserting her own freedom and creating a considerable and substantial niche among contemporary Indo-Anglican writers.

Kamala Das mentions in her autobiography 'My Story', '*A writer's raw material is not stone or clay; it is her personality*'. It, sometimes, compels her readers to ponder whether the sexual love depicted in her works does have a direct or to the least, an indirect bearing of her own sexual experiences in life. Kamala Das was exposed to the sexual advances quite early in her life. During her schooling at Punnayurkulam, she had a firsthand experience of homosexuality when she is handed over love letters by a plump girl, her schoolmate, Devaki. Her stay in the boarding school also brought her face to face with the lives of nuns who were deprived of their sexual life and behaved in a frustrated and sadist way. She realises that sex is a big taboo in conservative Malayali society. Even the married women could not discuss it among themselves. Kamala Das writes:

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> *"No wonder the women of the best Nair families never mentioned sex. It was their principal phobia. They associated it with violence and bloodshed. They had been fed on the stories of Ravana who perished due to his desire for Sita and of Kichaka, who was torn to death by Draupadi's legal husband Bhima only because he coveted her."*

She also finds her hostel mates getting infatuated towards the boys of their age. She herself admits of getting sexually attracted towards the different boys though the relationship proved to be unsuccessful and did not last for long. These sporadic occurrences around her stimulated her poetic self and left an indelible impression on her sensitive poetic mind. It supplied her with the raw material to which she applies different treatments to give it different shapes in her works. Devendra Kohli writes about Kamala Das,

> *"Almost, all the critics of Kamala Das have been quick to notice that part of the strength of poetry emanates from her powerful personality. But while the vigour of her personality seems to operate rather transparently, and on the surface as it were, it does not detract from the complexity of the women's ambivalence which is the certitude and the precariousness of sexual love."*

Apart from discussing her sexual experience at boarding school, extra-marital affairs, the writer has also given clues about the homosexual leanings of her husband. Sometimes her husband would indulge in his homosexual acts even in the presence of the writer. In her autobiography, Kamala Das writes:

> *"At this time my husband turned to his old friend for comfort. They behaved like lovers in my presence. To celebrate my birthday they shoved me out of the bedroom and locked themselves in. I stood for a while wondering what two men could possibly do together to get some physical rapture, but after sometime my pride made me move away."*

In her volume of short stories, Kamala Das invariably includes at least one story dealing with homosexuality. In her short story '*Iqbal*', the writer tells the tale of a newly married couple. The husband, after marriage tells his wife about his roommate in YMCA before marriage. He was a good looking youth named Iqbal. On coming across the married couple, Iqbal feels depressed and attempts suicide by consuming overdose of sleeping pills. He is taken to the hospital where his life is saved by the doctors.

About the use of sexuality in her works, William Walsh writes, "Her poetry is self centred and unabashedly sexual although the sexuality seems more fascinating to the poet because it is hers than because it is sexual".

Some critics and readers have charged her of being too explicit and adding too much detail in describing her love-making scenes. They claim that these descriptions would have been avoided by simply suggesting their sexual encounters. They blame her for glorifying sex or physical lust in her works. Harimohan Prasad remarks about the poetic works of Kamala Das:

> *"Her poetry has been considered as a gimmick in sex or striptease in words, an over exposer of body or 'snippets of trivia'. But the truth is that her poetry is an autobiography, an articulate voice of her ethnic identity, her Dravidian culture. In her, the poet is the poetry fully obliterating Eliot's distinction between the man suffering and the mind creating."*

Kamala Das, being a thorough iconoclast, overlooks her criticism. These charges do not perturb her because she is fully conscious what she is attempting to convey to her readers. She writes,

> *"If my mode of writing is striptease, let it remain so. There is a great difference between a patient exposing his nudity to her doctor and a cabaret artist baring herself to be provocative. The motive of the one is not vulgar, but a peeping Tom, looking through the keyhole into the doctor's chamber, the nudity may seem exciting."*

Notwithstanding these charges, Kamala Das has been a perpetual spring of inspiration for the other women writers and filled them with a sense of self confidence and self worth.

Kamala Das does not infer any conclusion on the basis of bookish knowledge which is apparently far from reality but on her personal experience and the married lives she observes around her. She, being a very sensitive and observant child finds that the life of the married women around her was far from satisfactory. She observes that only dissatisfaction and unhappiness exist in a licit relationship between a man and woman. She sees many women in Malayali society who were not happy with their husbands and looking for the happiness outside the ambit of marriage. She expresses it candidly in her autobiography,

"The only heroine whose sex life seemed comparatively untumultuous was Radha who waited on the banks of Jamuna for her blue-skinned lover. But she was another's wife and so an adulteress. In the orbit of licit sex, there seemed to be only crudeness and violence".

Sometimes, we also feel that Kamala Das' poetry is replete with sensual terms expressing an urgent urge for sex. About Kamala Das, M.K. Naik remarks:

"The most obvious feature of Kamala Das poetry is the uninhibited frankness with which she talks about sex referring to "the musk of sweat between the breasts", "the warm shock of menstrual blood". And even "my pubis".

The poet after having relationship with many men feels disillusioned with love and physical pleasure and starts thinking about the futility of human relations and existence. Here we are also reminded of T.S. Eliot's masterpiece '*The Wasteland'* where Eliot talks about the human existence and immoral practices attached to it.

Being absorbed in amorous meeting with lover does not provide her comfort and tenderness, she is looking for. She feels as if she has come out of her deep slumber and realizes that it is unreal and beauty of her body will wither soon:

"This body which I wear without joy, this body Burdened with lenience, slander, toy, owned by man of substance, shall perhaps wither, battling with My Darling's impersonal lust. Or, it shall gross and reach large proportions before its end."

In her poem, "A Losing Battle", she explains how she searches for the ideal lover in her relationship with various men. She is fully convinced that the ideal love is something which cannot be achieved through the physical contacts with a man. This poem also reminds us of the famous line of Shakespeare's tragedy 'Hamlet' –'*Frailty, thy name is woman'* where Shakespeare points towards the weakness in the character and moral uprightness of a woman. Here, Kamala Das makes the similar attempt at the men suggesting that men are also morally corrupt and they can be easily lured into a trap:

"…Men are worthless, to trap them

Use the cheapest bait of all, but never

Love, which in a woman must mean tears

And a silence in the blood."

The sexual affairs which Kamala Das describe in her works are not meant for seeking the sensual pleasure alone. She feels that by this means, some day, she will come across her God, the beauteous Lord Krishna face to face. She admits in '*I Studied all Men'* :

"It was entirely without lust. I hoped that some day as I lay with a man, somewhere beneath the bone, at a deadened spot, a contact would be made and that afterwards each movement of my life become meaningful. I looked for the beauteous Krishna in every man. Every Hindu girl is in reality wedded to Lord Krishna."

Thus, we can argue that the age and time becomes matured Kamla Das was fully aware that the objective she wanted to attain, cannot be achieved through the means of man-woman relationship or physical intercourse. Despite having met different men, she still feels a vacuum in herself. Her sexual affairs do not provide the comfort or the contentment she is aspiring. From men she turns towards lord Krishna for solace and addresses her as her lover in her poem. But her belief in Krishna is also short lived as the poet, converts to Islam amid a fierce criticism from conservative Hindus. Now instead of Lord Krishna, she begins to address her poems to Allah in 1999. Thus, we can easily observe that throughout her life, the poet seems to be searching for the ultimate lover, the unknown, who would provide her with the ultimate bliss, but time and again she fails in accomplishing her goal.

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BOOK REVIEW

PARALLEL PATHWAYS: ESSAYS ON HINDU MUSLIM RELATIONS (1707-1857)

AUTHOR: MEENAKSHI JAIN
KONARK PUBLISHERS PVT LTD, NEW DELHI, 2010
PP. 295,   PRICE: RS.600/-

Review by *Chander Pal Singh*

True purpose of history is to know the truth about the past. But history is seldom written that way. In reality, history is often written to present the past in a particular way to suit the needs of a particular ideology or politics. Accordingly, myths about history are created and some of them are repeated so many times that they become known as 'facts'. History becomes interpretations from cocooned perspective. Ideology, hermeneutics and rhetoric rob history from unraveling the 'authentic' story.   Perpetrators of such myths, however noble their intentions might be, have done more harm than the good they might claim, because they hide the truth and any solution of the present problems can only be based on correct diagnosis based on the right understanding of history.

One of the myths about Indian history is that communal tension between Hindus and Muslims is entirely a product of the British colonial rule. Supporters of this theory emphasize the *'fact'* that Hindus and Muslims fought together against the British in the Great Revolt of 1857 which is also viewed by nationalist historians as the First War of Independence. After the revolt was crushed, colonial administrators vigorously took up the policy of *divide et impera* and made Hindus and Muslims bitter rivals leading to many communal riots ultimately culminating into partition of India on religious grounds.

In a larger perspective, the thesis of composite culture i.e. that over the centuries of living together there has been a synthesis of world views and living habits of Hindus and Muslims, is a product of modern politics. It was first used by Indian National Congress to counter the demand for Pakistan by the Muslim League and after the independence it was used for the purpose of vote bank politics. First major works on the issue -*The Indian Heritage* by Humayun Kabir and *The Discovery of India* by Jawaharlal Nehru – appeared as late as in 1946 in the wake of the demand for Pakistan. The debate was revived in 1960s and it was marked by another landmark work, *Influence of Islam on Indian Culture* by Tara Chand (published in 1963). After that there has been a plethora of works on this line and it has become almost a 'settled fact' so much so, that any historian questioning the approach is immediately branded communal.

Given this background, *Parallel Pathways* by Meenakshi Jain is a path breaking work in the sense that it examines the state of Hindu -Muslim relations from 1707A.D. to 1857A.D., i.e. the death of the last great Mughal emperor Aurangzeb, to the Great Revolt of 1857. As we have seen the period in question is vital to understand the pre-British   state of relations among the two communities. Meenakshi Jain argues that there were fundamental differences between the two communities which aggravated during Mughal decline and resurgence of Hindu and Sikh powers. Major factor behind this development, she articulates, was the rise of Muslim orthodoxy which became more and more gloomy regarding the future in a land where Muslims were in minority without political power in their hand.

The work begins with the description of encounter between India and Islam with the Arab conquest of Sindh in 712 A.D. The author calls it a meeting *'between a self contained, assimilative, decentralized civilization and an exclusivist and expansionist faith'*. Islam laid emphasis on political power, pan-Islamism, pull of extraterritoriality, and primacy to religious identity. Throughout the period, the Muslim elite tried to maintain a different identity, failing to connect with the conquered land and on the other hand retaining their links with the Ummah. The author also notes that in the mainstream

Muslim society, liberal voices in Islam like Akbar and Dara Shikoh were bitterly criticized while fundamentalists like Aurangzeb were lauded.

Second essay surveys the political scenario of the 18ᵗʰ century India as a period of Mughal decline; emergence of successor states in Awadh, Bengal and Hyderabad with a formal but nominal alliance to Mughal emperor; establishment of Afghan principalities; breaking down of Mughal-Rajput alliance; rise of Jats and Sikhs; Marathas under the Peshwas: and finally the rise of English Company as the paramount power. The author is able to present historical evidence which shows that Muslim circles of India invited Nadir Shah and Ahmad Shah Abdali to invade, both acting as saviors of Islam.

Next, the political culture in Mughal successor and Muslim conquest states has been discussed. Foreign element remained dominant throughout the Muslim rule. Akbar was not an exception as 70% of nobility in his court consisted of immigrants. But post-Akbar period saw a steady decline in Hindu/Rajput influence in Mughal court and Jiziya became an instrument of the ascendency of the Muslim orthodoxy which was commanded by the foreign elements.

In 1582, Persian, a foreign language, became the official language under Akbar. Akbar made efforts to ensure that Persian remain pure and Hindi and other vernacular words did not pollute it.

Meenakshi Jain has also made case studies of Awadh, Hyderabad, Bengal and Mysore in her work. She concludes that emerging regional identities around regional languages and regional religious traditions, and widening of regional caste identities were not espoused by Mughal successor states and mostly developed outside court circles. She is able to show that no shared ideological affinities between the ruler and ruled existed in case of these states.

Islam dominated the architecture in towns, except the religious centers and the extreme South. Sacred structures of other faiths were edged out of the view.

During the decline of Mughal empire, rulers like Marathas and Sikh ruler Ranjit Singh tried to redeem and restore the Hindu heritage. New shrines came up in North India. Marathas were keen to liberate sacred places like Prayag and Banaras from Muslim control. They banned cow slaughter but towards their Muslim subjects, their approach was more or less secular. Sawai Jai Singh (1700-1743) of Jaipur also deserves a special mention. He promoted Hindu learning, performed Vedic sacrifices and yagnas, and revived Bhakti orders. British dominions also witnessed a Hindu cultural upsurge. New temples and shrines came up and there was a remarkable increase in showy display during religious processions and festivals. Open veneration for cow also began to be displayed.

Meenakshi Jain has not toed the widely accepted line on the roots of nationalism in India. The dominant school of Indian historiography claim that Indian nationalism is a product of British connection and was almost absent prior to the advent of the western forces. She is not hesitant in stating that consciousness of a nation has been present in India since Vedic times. Throughout the ages, there has been a deep veneration among Hindus for their sacred land and various cultural symbols. Antiquity of nationalism in India emphasized in the writings of Rajnarian Basu, Nabgopal Mitra, Bankim Chatterji, Swami Vivekananda, Sri Aurobindo and Mahatma Gandhi has been quoted amply to buttress this point.

National sentiment did not diminish even during the medieval times. Meenakshi Jain gives the example of Maharashtra Dharma which produced 250 saints in five centuries. But as far as the modern nationalism is concerned, it first appeared in the province of Bengal.

A separate chapter has been devoted to the question of language during the 18ᵗʰ and 19ᵗʰ centuries; and how it led to a calculated rupture between the two communities. In Muslim India, Persian, the language of the ruling class, was an alien import containing images and illusions from abroad. The naturally evolving native Hindavi, drawing on speech from various *bolis* in the vicinity besides absorbing from Arabic and Persian, became the language of significant section of society. Consequent to Mughal decline, when it became necessary to replace Persian, Hindavi was the natural substitute. But Muslim elite, anxious to preserve its separate identity radically transformed the language by eliminating a large number of Hindi words of Sanskritic origins and substituting them with Persian and Arabic vocabulary. This led to the birth of Urdu. Several observers linked this development to decline of Mughal power and Muslim elite's resolve to create an exclusive cultural zone. In the process of Persianization, Urdu became wholly identified as the language of Muslims. Meenakshi Jain quotes Abdul Haq, a prominent leader of the Urdu movement that Pakistan was not created by Iqbal or Jinnah but by Urdu as two nation theory and all other differences of that nature arose directly from that language. She has also absolved the British of the charge of dividing Hindavi into two separate languages of modern Hindi and modern

Urdu . Fort William College, the alleged centre of this activity was established in Calcutta only in 1800 A.D. almost a century after the drive had commenced in India.

In the final essay, Meenakshi Jain concludes that the decline of the Mughal state provided one of the strongest boosts to strengthen the hold of orthodoxy and hastening the pace of Islamization. In this context she discusses the role of Shah Waliullah Khan, Syed Ahmed Barelvi and revivalists of eastern India like Maulana Karamat Ali, Titu Mir and Dadu Miyan to rid Islam of much it acquired with interaction with other cultures.

The author discusses in details the Revolt of 1857.She quotes several micro studies to state that 1857 revolt cannot be termed as a unified attempt of Hindus and Muslims to liberate India from the British rule. Contrary to popular perception distinctions between Hindus and Muslims remained during the 1857. In Rohilkhand it was a Mohemmedan rebellion with serious divisions between Hindus and Muslims. There were cow killings and Hindus prayed for the British victory. In Hyderabad, Muslims viewed with dismay the prospect of Maratha success in 1857. In Delhi and Bareilly, cow slaughter was banned to unite Hindus and Muslims. During the Revolt, British regarded upheaval as a Muslim conspiracy to regain their empire. But later, Muslims were projected as the most loyal subjects.

In the post-revolt Islamic revival, institutions like Firangi Mahal (older), Deoband (1867), and Nadwah Dar ul Ulum (1891) advocated abandonment of customary practices shared with Hindus. They aimed for consolidation and leadership of Muslim community in the absence of an Islamic state. Deoband issued 269,215 *fatwas* in first 100 years mainly focusing on removing unIslamic practices. From 1880s, *fatwas* were issued to discourage social and business relations with Hindus. The process of Islamization continued to gather speed with large scale translation of Islamic works such as Quran in regional languages especially the Urdu.

Meenakshi Jain has also devoted some pages to Sir Syed Ahmed Khan's efforts for Muslim political revival contingent with friendly relations with the British. He advised Muslims to stay aloof from Ilbert Bill agitation (1883) and Indian National Congress (1885). Sir Syed laid foundations of Muslim opposition to representative institutions. He demanded separate constituencies and representation for Muslims in excess of their population ratio. He was convinced that Hindus and Muslims could never cooperate politically and that a civil war would ensue in case British moved out of the picture.

Summing up, Meenakshi Jain has successfully questioned the existing paradigms about the Hindu – Muslim relations during the 18th and 19th century India. Her resources are micro studies of the period and thus she is able to bring to light numerous lesser known studies conducted in India and abroad related with the issue providing the future researchers with very valuable sources. At the same time, it appears that she has avoided the primary sources to such an extent that even easily available sources like writings of Swami Vivekananda, Aurobindo Ghosh and Mahatma Gandhi (p.149) have been cited from secondary sources. Also, the value of this superbly researched work would have further increased if there had been an additional essay on the historiography of the Hindu- Muslim relation itself.

▰ BOOK REVIEW ▰

DEBATING CULTURE

AUTHOR: ANIRBAN GANGULY

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PP.158 + VIII, PRICE: RS. 250, US$ 10.00

Review by *Priyadarshi Dutta*

Subhas Chandra Bose spent a day in Egypt on January 17, 1935 while voyaging to Europe. His musings in the land of Pyramids is captured in an eminently readable essay, *The Majesty of Man*, published in *The Modern Review*. Therein, Bose observes, 'As compared with Egypt, India also can boast of very ancient culture and civilization, but one must admit that we have not been able to preserve what we constructed, owing to our comparative inefficiency in the art of preservation…..Our emphasis was not on civilization but on culture; not on material side of life but on the intellectual and spiritual. Therein we had our advantages, as well as disadvantages. Owing to our superior thought power, we could hold our own against invaders from outside even when we were vanquished physically for the time being- and in course of time we could also absorb the outsider while the ancient Egyptians went down before the Arab invaders and disappeared altogether'.

Subhas Chandra Bose almost seizes upon the crux of Indian experience. The towering civilizations that erected Pyramids, Ziggurats and the Great Wall of Gorgan disappeared for the want of an intangible cultural heritage to sustain it. India contrarily could preserve its identity despite monumental destruction because of its intangible heritage. Viewed in millennial perspective, India has not preserved its political continuity. Modern political institutions in India, unlike in the Europe, did not evolve from ancient or medieval institutions. They are an outcome of British intervention and inspiration in the nineteenth century. But political disruption notwithstanding, India maintained the integrity of its consciousness due to its intangible cultural traditions. Or was its something subtler than the UNESCO-definition of intangible cultural heritage (ICH)?

India was viewed as a political construct by the earliest national leaders like Dadabhai Naoroji, Surendranath Banerjea or Pherozeshah Mehta. They thought India's salvation lay in the political reforms. But thought-leaders like Swami Vivekananda, Sri Aurobindo, Ananda Coomaraswamy, Sister Nivedita, Annie Besant etc contended that India is not merely a political entity. India is a sacred land whose art & culture bear the imprint of its spiritual attainments. The emergent national life, they advocated, should be founded upon that profound heritage not merely the transient political pursuits. Educated in modern sense of the term, they expressed themselves in consummate English. Thus they could converse to a modern audience on the uniqueness of Indian culture. That was really the game changer.

Anirban Ganguly's book '*Debating Culture'* culls the views of some savants on the Indian culture. His list includes Swami Vivekananda, Ananda Coomaraswamy, Sri Aurobindo, Sister Nivedita and Indologist Sir John Woodroffe aka Arthur Avalon. In another section he studies K.M. Munshi, Syama Prasad Mookerjee and Jawaharlal Nehru, the men who contemplated on culture, despite being in active politics. Vivekananda, though a monk, was a passionate enthusiast on Indian art, architecture and culture. He saw the best part of the world, West and the East to make his judgments. Coomaraswamy, a Lankan Tamil, advocated that India's impulse for Swaraj or independence must be true to its cultural heritage. Seer Sri Aurobindo understood that some amount of borrowing from western culture was unavoidable. It was

not undesirable either if the eternal spirit of India were to manifest in modern times. Sister Nivedita was of the view that Indians must be imbued with stories of heroism and greatness that their history has to offer.

With the achievement of independence, the ideal and the rigour gave way to lust for political power. India became 'a union of states' in place of 'Mother India' guided by a Constitution not rooted in its past. The Leftist academicians, who appropriated the academic space, kept the views of the aforesaid savants outside discourse formation. Yet the intangible spirit of Indian culture dodged marginalization like it had dodged death in earlier eras. But now the revival of such ideas is no longer a pipe dream. Even the India political scenario looks ripe for successful advent of cultural nationalism rooted in territory, history and imaginations. .

The author in the latter half of the book included K.M. Munshi, Syama Prasad Mookerjee and Jawaharlal Nehru in his study. These post-independent leaders gave India institutions, public or private, that its cultural heritage might be preserved. His political fiascos notwithstanding Nehru had a rare sensitivity to Indian culture. He institutionalized it through various institutions like ICCR, Sahitya Akademi, Sangeet Natak Akademi, Lalit Kala Akademi etc. K M Munshi founded the Bharatiya Vidya Bhawan for research into Indian heritage from an Indian perspective. His magnum project '*History and Culture of the Indian People*' edited by renowned historian R.C. Majumdar is a lasting legacy in scholarship. The author also highlights how the Ministry of Culture has badly mishandled the Indian culture. The bureaucratization of culture is that last things the Culturists will desire.

The book, however, is found wanting on several counts. First, it is a personality-oriented rather than idea-centric book. It does not distinguish properly between art & culture. It also does not identify the distinguishing features of the Indian culture vis-a-vis other cultures. While art is a creative expression whether rendered on material (rock, stone, wood, metal) or sound (vocal and instrumental music) or performance (dance or drama) the culture includes lifestyle, community behaviour and religious convictions etc. While they are related, the two are not exactly the same thing. Second, given it is personality centric book, it would have been desirable if the author would have dealt with actual practitioners of culture like Nandalal Bose, Uday Shankar, M S Subbulakshmi and Pandit Vishnu Digambar Paluskar etc. But that would have taken the book into a very different turf. But Tagore- the poet, painter, lyricist, and music-composer- who philosophized so much on culture has not been dealt separately. He is given a place only in the Introduction. It might be that the author had wanted to restrict himself to cultural views of the nation builders. But what it lacks is a framework – a deliberation on the nature of Indian culture itself. The historical development in the 19th century that made Indian Culture a talking point needed to be dilated upon. The cover of the book shows a banyan tree with overhanging roots forming a web. The Indian Culture is truly a subject that demands such profound treatment. But, at present, the book resembles a nice and well-maintained park.