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Reflection of Livelihood Issues Across Hindi Literature

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Abstract

The issue of livelihood dates back to the beginning of human existence and its reflection in literature is evident since ancient times. Indian Myths and Legends bring to the fore a plethora of ethical means of livelihood such as those in epics like Ramayana and Mahabharata. Occupations like archery, agriculture, horse keeping, fish farming, architecture, construction of buildings, dairy farming, animal husbandry, sailing and a variety of art forms have been described as the prevalent means of livelihood. The first book of Hindi literature Sandesh Rasak by Abdul Rehman written around Circa 1100, Varan Ratanakar by Jyotishwar Thakur around Circa 1300, Keerti Lata and Keerti Pataka by the poet Vidyapati have depicted various means of livelihood such as carving weapons, gold smith, black smith etc. The medieval Hindi poets like Saint Kabir, Guru Nanak, Raidas and Dharamdas who were also social reformers emphasized on the importance of Karma, encouraging people to let go of superstitions and rituals. In fourteenth century, during the Mughal empire interestingly writing poetry itself became a livelihood for many poets whereas various other occupations thrived simultaneously. During the Modern Period of Hindi literature, various means of livelihood were negatively impacted due to the exploitative nature of the colonial powers. Due to advancements in technology and education for women newer horizons have emerged while the industrialization and urbanization have resulted in the creation of the neo rich class. Consumerism and a materialistic approach has also increased the divide between the haves and the have-nots. All the forms of post independent literature invariably deals with the various levels of conflicts emerging out of changing economic situations and challenges of life which has deeply impacted the means of livelihood. This has also had an adverse impact on the cultural heritage and richness of Indian society.

The paper 'Reflections of Livelihood Across Hindi Literature' thus engages with various factors and changes in livelihood in developing India from the ancient period to the postmodern era catering to the modern man's needs which are a matter of concern as livelihood through many unfair means is an emerging threat. Literature plays a very significant and positive role by reflecting the right ways of livelihood and significant role of education in this regard.

Keywords: Livelihood, Ancient Times, Social reformers, Education

Reflection of Livelihood Issues Across Hindi Literature

Economy is one of the primary aspects of any socio-cultural fabric and it is impossible to imagine a society devoid of it. Therefore its reflection is implicit in most forms of Art but it is most visibly present and expressed in literature. The issue of livelihood dates back to the very origin of humankind. Indian Myths and legends bring to fore a plethora of tales recounting various means of livelihood while laying emphasis on the moral and ethical dimensions. In epics akin to the Ramayana and the Mahabharta the various reflections of livelihood such as archery, agriculture, horse rearing, fish farming, architecture, construction of buildings, dairy farming, sailing and many art forms such as painting, sculpting, designing and selling jewelry have been described.

In the ancient times, many words and expressions were used for livelihood, such as 'Vidya' (knowledge), 'Shilpa' (Craft), and 'Vyapaar' (Trade). In Bharat Muni's *Natsyasastra,* the word 'Shilpa' is used where as in *Raghuvansham* by Kalidasa fourteen means of livelihood have been mentioned. *Sandesh Rasak, one of the famous works of Hindi literature,* composed by Abdul Rehman around Circa 11th Century; *Varan Ratanakar* by Jyotireeshwar Thakur around 1300, 'Keeriti Lata', 'Keerti Pataaka' by eminent poet Vidyapati in Aadikaal have depicted various means of livelihood such as carving weapons and tools, singing, dancing, poetry writing, agriculture, jewellery designing etc.

During Aadikaal the practice of writing poetry known as Raso Kavya Prampara; where poetry was written by court poets; depicted the primary issues of livelihood. These included serving the King's army, agriculture, courtier ship etc. The poets of this era composed most of their poetry praising the velour and beauty of their patrons which enabled them to earn a better livelihood. At times this poetry was written to inspire the kings for war. A few poets also earned their livelihood by accompanying the kings to the battlefield. They did so in order to inspire them throughout the battle with the recitation of their verses. It is a known fact that the famous Poet Chand Bardayee, who wrote the epic *Prithavi Raj Raso* accompanied the King Prithavi Raaj Chauhan to the battlefield.

The medieval Hindi Poets Saint kabir, Guru Nanak, Raidas and Dharamdas who were poets and social reformers imparted the message of Karma to mankind. Kabir and his fellow poets strongly opposed the rigid rituals in both Hinduism and Islam. They aimed at encouraging people to keep faith in one supernatural power in the name of God and rejected idol worship. Many of such poetic verses reflect the various professions which were the sources of livelihood in those times. In Kabir's words

> *Pahan Pooje Hari Mile Tau main poojun Paharr*
> *Tate tau chaaki bhalli pees khaye sansaar*

(Sharma, 1997)

The poet postulates that if it were possible to find God by worshiping a stone then, he would rather worship a mountain. But negating this act, instead he propounds that it is better to work at a flour mill which would help feed the whole world. The poet here talks of karma employing the profession of a miller as a metaphor. Another instance is seen in the following verse where he writes:

> *Pothi Parr Parr jag mua pandit bhaya ne koi*
>
> *Dhayee akhar prem ka paree so pandit hoye*

(Sharma, 1997)

Here kabir reiterates the idea that one cannot obtain knowledge solely by reading scriptures. He says that it is experiencing Godly love, which is the true marker of wisdom. In saying so he also rejects the puritan Bhraminical notion of attaining spiritual wisdom solely through material knowledge. He condemns the practices where religious leaders were misguiding people in the name of God, by claiming to have knowledge by reading religious books. This had indeed become a source of earning for many such people at the time who bartered spirituality for money and goods. Another instance is when he writes

> *Dheere dheere re mana dheere sab kuch hoye*
> *Mali seenche sau gharra ritu aye phal hoye*

(Sharma, 1997)

In these lines Kabir propounds that patience is a big asset. One must be patient as things will happen in due course of time. Even if the gardener waters a fruit tree hundred times, the tree will give fruits only during the season. Here the use of the word 'gardener' implies the existence of gardening as a profession and thus as a means of livelihood. The Sikh Guru Shri Guru Nanak Dev has also mentioned many professions in his poetry such as shop keeping, farming, weaving, goldsmithery and so on. Saint Kabir earned his livelihood by weaving whereas the poet Ravidass was a shoe maker which reflects that these saint poets were themselves employed in one manner or the other. This set an example before mankind that one must do 'Karma' in order to earn one's livelihood as one cannot attain God just by visiting a religious place or by performing rituals. Thus these poets tried to bring social change during the 14th century and directed mankind towards the right path by giving up rituals and superstitions.

In Sufi Poet Jaiysee's famous epic "Padmavat" there is a long list of various goods like jewellery, chariots, weapons, beautiful clothes, number of etables. This indicates their use and their demand in the market, thus making of each such good was a means of livelihood. The professions like

astrology, horse riding, worriorship, diplomacy, internal scurity, espoinage, trade, priesthood, service of royality also find a mention in sufi epics. In *Ram Charit Manas,* which is the Ramayana composed in Avdhi language written by Tulsi Dass, agriculture and zamindari were the prominent sources of livelihood which created and furthered the divide between the upper echelons of society and the lower ones. One class were the oppressors while the other, oppressed, severly exploited and taken advantage of. This depicts the socio economic dynamics of the era in consideration. The believer of Lord Krishna, the poet Surdas mentioned many professions in his poetry. Many especially from the Brij Bhumi, the land of milkmen where the primary means of livelihood was cattle rearing, dairy farming and, agriculture. Barter system was also prevalent during those times.

In the post medieval period of Hindi Literature termed Reeti Kaal, during the Mughal Empire, interestingly writing poetry itself became a means of livelihood. Professions like agriculture, farming. Dairy farming, astrology, astronomy, dying clothes, washer man, animal husbandry, goldsmith, and painting, pottery making, dancing and, singing were the other sources of livelihood and they are well reflected in the poetry of that era. Indeed during Reetikaal the Mughal Emperors lived a very luxurious life. 'Sundari and Sura' (Wine and Woman) was the ultimate source of happiness for the kings. In order to please the king, the poets wrote poetry based on beauty and romance. In this era the objective of writing poetry became the depiction of the sensuality of the woman's body. These poets borrowed the templates and rules of writing poetry from the Sanskrit classics and wrote befittingly. They could create masterful pieces as far as linguistic and aesthetic parameters were concerned but since they wrote for earning a livelihood the poetry gradually started losing its soulfulness. The poets also often depicted many images of Radha and Lord Krishna but they were merely romantic and bereft of any devotion. This led to their emergence as a symbol of love. Renowned Reeti Kaal poet Bhikhari Dass wrote:

Aage ke kavi reejhehin tau kavitayee

Na tau Radhika kanhayee Sumrin ko bahano hai

(Nagendra, 1978)

The poet remarks here that if the poetry being written is emulated only then is it worthy of significance, lest it would just be considered as an excuse for glorifying the divine. The poet Dev from this period also classifies his heroines based on their professions such as hairdresser, dyer, gardener, washerwoman, makeup artist, painting, potter maker, water supplier, milk maid etc. As this period was the period of luxury, most kings had poets in their courts known as 'Nav Rattana'. These poets enjoyed all the luxuries of life at the behest of writing romantic poetry for the pleasure of their respective kings and also to earn their livelihood. Due to lack of printing technology calligraphy also became source of livelihood for many who had the skill of beautiful re-writing. Besides this agriculture, selling milk, designing clothes and jewelry making were also known means of livelihood.

Poetry was the only form of writing until the period of Reetikal. There was no prose writing in practice during this period. However influenced by western literature the prose writing was initiated in Bangla, followed by the Hindi writers. In 19th century the economic and cultural exploitation by the British in India reached its apogee. Indians had to pay heavy taxes, default in tax payment resulted in annexation of land. The British started establishing industries in India which employed thousand of Indians but their exploitation continued. Economic and intellectual poverty was on the rise. Fort William College was established aiming to produce clerks to run the British Machinery. This was hugely opposed by Indians who demanded education in their native tongue. The main source of livelihood, agriculture was adversely hit as farmers were also victimized by heavy taxes on both land and produce. Their taxation policies negatively impacted many means of livelihood and industrial growth due to heavy

duty on imported goods. The basic necessities of human life like grains and clothing were also monopolized by the British.

The famous poet Bhartendu Harish Chandra strongly criticized the British Raj for its exploitative policies by indicating the deleterious effects on various contemporary means of livelihood. Aacharya Mahavir Prasad Diwedi wrote a book titled *Sampati Shashtra* highlighting the major economical crisis in the Indian society during that era, pertaining to livelihood. The Indian landlords were also exploiting the farmers and the laborers. The Hindi Novel 'Godan' by Munshi Prem Chand highlights the pathetic living condition of Indian peasants. They were subjugated to exploitation due to ever increasing and inexhaustible debt. The story of Godaan carries the parallel depiction of city and village life, where by the author has expressed the inhuman exploitation of various kinds at both levels. In the villages the brunt was borne by the farmer while in the city it was the laborers. The Hindi Literature written during pre independence India invariably engages with the various levels of conflict emerging out of economic crisis, creating a neo rich class. This was a privileged section of Society which saw to the increase of the gap between the haves and the have nots. Soon after independence the Indian social scenario transformed due to the impact of industrialization leading to urbanization. The Indian woman who was confined to four walls of the family saw new horizons of life through the new light of education. She proved her competence in various fields embarking on fulfilling careers. The many traditional means of livelihood gradually began to decline and were replaced by new ones. Post colonial Hindi literature deals with various forms and levels of livelihood.

During the 'Nayee Kahani Andolan, (the New story movement) the reflection of livelihood issues emerged vividly. Story writers and Novelists like Nirmal Verma (*Ve Din*), Rajinder Yadev (*Teri-Meri Uski Baat*), Mohan Rakesh (*Andhere Bandd kamre, Aadhe- Adhure*) Kamleshwar (*Neeli Jheel*), Bheesham Sahani (*Tamas*), Shree Lal Shukl (*Rag Darbari*), Manohar Shyam Joshi (*Kuru-Kuru Swaha*), Rahi Masoom

Raza (*Aadha Gaon*), Ram Darash Mishra(*Jal Tutata Hua*), Dharmaveer Bharti (*Band Gali ka Akhri Makan)*, Surender verma (*Mujhe Chand Chahiye*) dealt with many issues of livelihood emerging due to industrialsation and urbanisation also indicating the problem of increasing unemployment and frustration among the youth. The Hindi Poets Nirala, Dinkar, Maithlee Sharan Gupt, Dharmveer Bharti and Dhumil did express the various means of livelihood writing about the struggling class of society such as labourers, cobbler, farmers, rickshaw puller etc.

The prominent women Hindi prose writers such as Krishna Sobti, (*Ae-Ladki*), Mannu Bhandari (*Maha Bhoj, Apka Banti*), Usha Priyamvada (P*achpan Khambe Laal Dewarein, Rukogi Nahin Radhika, Antrvanshi)*, Mridula Garg (*Chitt Kobra*), Shivani (*Rathya*), Raji Seth (*Tattsam, Nish Kavach*), Mamta kalia (*Daurr*) also dealt with many such livelihood issues through their writing particularly depicting the challenges of modern working women. It is extremely relevant to mention that interestingly, the reflection of the livelihood issues in post colonial writing in Hindi can be observed in all major forms of literature such as short stories, long stories, novels, plays and in poetry as well.

Hindi literature depicts various means of livelihood when viewed with reference to the pre globalization period. The onset of privatization led to the emergence of a plethora of jobs in the economic fabric which were significantly distinct from regular employment in the public sector. This is reflected among the characters of modern Hindi fiction who have been seen getting education through distance learning and exploring various job opportunities. Male characters are seen primarily working in multinational companies as marketers and business representatives, agents, computer engineers, advertising experts, journalists, writers. Female characters are also seen finding new opportunities of livelihood along similar lines. In addition to that they are also seen heading companies, leading businesses, are at times journalists, working at NGOs, etc. This depicts the rise in the status of Indian women in modern times. Many female illiterate characters from the lower rungs of society, also create a space for themselves in a

work environment in these narratives. They have been shown working in factories, private companies, as daily wager workers, labourers, working in shops, hostels, boutiques and at times as domestic workers. This depiction points towards the urgency felt by women at various levels to earn a livelihood in order to attain independence.

It has also been discerned that educated women, particularly the ones from the middle class began to excel in male dominated disciplines and professions. Priya, the lead Character of Hindi Novel- *Chinnmasta b*y Prabha Khaitan is a very successful business woman who runs a leather export business. The award of the Best Entrepreneur of the year is bestowed upon her and she rises to become the first woman president of FICCI. She is instrumental in providing livelihood to hundreds of people in her leather factories. But she is humiliated by her husband due to her rise in the society to which Priya reacts strongly. She questions her husband, "Is it a sin to be ambitious? Don't you earn money? Why are you jealous of my money Narendra? You earn one crore in a year where as I earn few lakhs. Don't you want to be FICCI's director? Don't you enjoy to be welcomed and to be garlanded in the social meets?"[5]. Priya's husband also has a business house of his own but he is jealous of her success. Due to violence and extreme humiliation Priya divorces her husband, and goes on to grapple with roadblocks in life, both personal and professional. Frightened by her husband's vicious mind she threatens him, saying, "In case you ruin my business, I will expose all your frauds of income tax, sales tax and excise openly to the world and will see how you escape" [6]. It's evident from Priya's words that her husband wants to ruin Priya's livelihood which she has earned by years hard work whereas he, himself is earning money by unlawful means by not paying taxes.

In post modern era, working women find ample space in the Hindi literature. It depicts the struggle of women who are surrounded and governed by patriarchy in all aspects of life. Rajindra Yadav says, "Priya is the first woman protagonist equipped with talent and a sense of identity who rises as a challenge to the society"[7] (Yadav, 2001). In this context

prominent Hindi critic Arvind Jain says that "perhaps for the first time ever, a protagonist of Hindi fiction transcends all boundaries of family, finance and tradition, lunging towards an international arena of opportunity upholding woman hood and also engages in intellectual discourse"[8] (Jain, 2000). Another female character in this novel goes on to build a fulfilling career as an interior designer but since she is an illegitimate child, she is confronted with emotional turmoil and a struggle to find a dignified space in the society.

In *Anwan*, a notable Hindi novel written by Chitra Mudgal which is premised on the metropolitan culture of Mumbai a number of livelihoods find mention. Hundreds of people, both male and female work as labour in factories, mills, and NGO's. A big group of uneducated women are shown earning their livelihoood in Mumbai by making 'Pappara' (a snack which is an appetizer). These women earn a minuscule wage, yet they are happy to be independent and share the financial burden of their family. Many professions like teaching, business representatives, cosmetology modeling, prostitution, photography, and import export traders; contractors etc are reflected in Hindi literature. A few characters in *Aanwan* are touts who supply young girls to politicians and rich men. This is depicted in a negative light, which as a consequence encourages crime against women and also indicating socio economic dynamics of the Indian society.

In *Aanwan,* even female characters unabashedly employ unfair means to make a living, for instance, Anjana Vasvani. She introduces a beautiful young girl named Namita to a Diamond trader, Sanjay Kanoi on the pretext of a modeling assignment for his jewelry catalogue. However, underneath this pretext Sanjay entraps Namita to enable himself to have an heir. Here Anjana acts as a tout and the unaware Namita is forced into surrogacy. She is offered a big bungalow and a hefty bank saving in lieu of delivering the baby as a surrogate mother since Kanoi is childless. Namita is shattered and feels cheated but is unable to abort the child in the face of life threats from Sanjay. She is extremely shocked to learn from Sanjay Kanoi about Anjana Vaswani's true colours. Sanjay reacts to her

denial to surrogacy and screams at her, saying, "Do you know how much I have spent on you in order to become a father. That petty woman Anjana Vasvani has no capacity to spend money on you. Her job was limited to helping me in becoming a father and take her commission as per the contract"[9]. This clearly indicates that traditional moral boundaries receded to the margins as Anjana entraps another girl, Gautami with similar intentions. Unlike Namita, happily accepts the privileges offered to her in barter for the child that she is carrying for a businessman. She in this process is a metaphorical representation of the post modern human being for whom money is the essence of life. Social norms crumble with money and material goods occupying centre stage. This led to denouement culminating in the loss of human relations and sensitivity.

A significant number of Indian Diaspora writers have also expressed the livelihood concerns in their short stories and Novels.   In the work of Abhimanyu Anant, Usha Priyamveda, Susham Bedi. Saumitra Saxena, Om Krishan Rahat, Pratibha Sexena, Sudarshan Priydarshini characters have been demonstrated, struggling hard to earn their livelihood. Right from working at the gas station, cafe, bar, restaurant, theatre, school, call centre, shops, factories, agriculture while studying through simultaneously striving for a better carrier . Some of them supplement their income through babysitting, private tuitions and even household work. It's also quite evident in Hindi literature that the well educated Indians abroad are well placed as doctors, engineers, computer programmers, teachers and professors and have best means of livelihood..

A large number of Hindi writers' own lives struggle can be found in the characters that they create and the circumstances that these characters are confronted with. Usha Privyamveda, based in the US for over five decades has laid major emphasis on women's issues by portraying the struggles faced by women, particularly those in unhappy marriages. They are at war with their very own selves and at times encounter identity crisis. The male characters on the other hand are seen to be pressured into stereotypical roles and responsibilities, irrespective of their own interests. For instance

it considered to be a given that a male shall be a breadwinner and shall go to any extent to provide financial comfort and security to the family. This mounting burden at times leads them into unethical, immoral, unlawful and nefarious activities. However many female characters have been depicted becoming financially independent after having education which enables them to play a major role to have better life standards and better grooming of their childern .

In the novel titled 'Antarvanshi' the protagonist Shiven, who is a scientist, earns little, which is insufficient to offer a comfortable life to his wife. This motivates his wife Vanna to be independent and share the burden with her husband. But Shiven who comes from a patriarchal set up wants Vanna to just be a housewife. He does not permit her to pursue academics further and also prevents her from taking up any job. Vanna faces many problems in raising her two sons due to paucity of money. This failure and paucity makes Shiven involve in the drug business. He desires to obtain windfall gains however, his plans are foiled. His criminal activities are caught by the police who put him behind bars. In the mean while Vanna gets higher education without her husband's knowledge, becomes independent and remarries an Indian doctor after taking divorce from Shiven. Another Novel *'Shesh yatra'* brings to fore a young Indian lady who takes a tough decision to live alone and go for higher education in America after being abandon by her husband which helps her to build a carrier and she is emancipated from the torture of her rich husband who is a womanizer. Sarika the lead character of the Novel '*Antarvansh*i' who is cheated by her lover doesn't want to depend emotionally on him. She decides to return back to India being an aware individual who can foresee a bright future ahead of her as a doctor. She tells her friend Vanna, "That chapter is closed for me Vanna. I am returning for my ownself; I can't get stuck at a point. For me everything is there. My future, my aspirations, my parents. I want to give a lot to my country" [10]. Sarika represents the modern Indian woman who is independent of man's protection, and breaks the stereotypical image of Indian female folk.

It is also pertinent to mention that some women characters have set new trends in earning their livelihood. Few of them can be seen very successful in the male dominated professions like finance, business and trade etc. This reflection of 21st century's educated and successful women depicts social change and also the changing role of woman in Indian society in the recent years. Some female characters not only go beyond their traditional frame of family traditions and rigid social norms which exclusively pertain to women. They rather touch new horizons, having excelled in their respective domains and also rise to intellectual heights which are perceived as a threat by men folk having a traditional mind set.

The recurring reflection of issues of livelihood in Hindi literature is also accompanied by various motifs of the swift pace of post modern existence for; manpower is substituted by machines in many professions. Whilst further in contrast gastronomy, fashion, travel, technology, cinema and theatre industry have created many a ripple as a legitimate opportunity to earn bread and butter. Since money occupies a centre stage in post modern human existence, it has entailed complex ramifications. It has disturbed and detrimentally impacted human social fabric and sensitivity. However the intent of Hindi literature in depicting these ramifications is to sensitize its audience towards the immense importance of an ethically driven society which is premised on collective existence.

The reflection of livelihood issues in Hindi literature is seen as they evolved with time and needs of human being and education plays a significant role in this regard. As the gradual evolution and transformation of livelihood progressed with the course time, literature also evolved in its depiction. This is an infinitely evolving phenomenon which will be captured by literature time and again. They might not obtain a direct mention but shall always find space in the hum drum of literary traffic where they will persist akin to a constant hum.

References

Jain, A. (2000). Aurat, Astitva Aur Asmita. New Delhi: Saransh Prakashan.

Khaitan, P. (1997). Chinnmasta. New Delhi: Rajkamal Prakashan.

Mudgal, C. (1999). Aawan. New Delhi: Saamiyik Prakashan.

Nagendra, D. (1978). Hindi Sahitya Ka Itihas: Hindi Vangmaya Beesvin Sadi. Allahbad: Lokbharti Prakashan.

Priyamvada, U. (2004). Antarvanshi. New Delhi: Vani Prakashan.

Sharma, S. (1997). Kavita Lok, Chandigarh: Panjab University Publication Bureau.

Yadav, R. (2001). Aadmi Ki Nigah Mein Aurat. New Delhi: Rajkamal Prakashan.

Labour Absorption in Punjab Agriculture: A Spatio-Temporal Analysis

SUCHA SINGH

Abstract

The labour absorption in Punjab agriculture has undergone profound changes during the post-Green Revolution. The study examines changes in labour use and inter-crop differentials in labour employment during the last three decades (1987-2017) in seven major crops. For this purpose, data was collected through fieldwork from 499 farms distributed in the state's three agro-climatic regions with the help of a proportionate random sampling technique. Findings of the study revealed that per acre use of labour in agricultural operations has registered a steep decline in selected crops because of the intensive use of machinery and chemical inputs. Increased labour use in sugarcane and fodder cultivation is mainly due to the rise in irrigation intensity of the former and the practice of growing more crops in a single crop season in the latter one. Since many of the sampled farms produce more than one vegetable and potato crop of short maturing varieties in a single crop season, the study recommends the promotion of vegetable farming under a crop diversification policy to absorb readily available labour in the state.

Introduction

There has been a close link between agricultural labour in Punjab and the changes in farm practices. It reflects the complexity of market forces and technical factors influencing the state's demand for farm labour. With the introduction of the Green Revolution in the mid-1960s, there was an emphasis on wheat and paddy cropping pattern along with the use of high yielding varieties of seeds, fertilizers, irrigation, agro-chemicals and mechanical farming, which impacted the productivity, production and employment greatly in Punjab (Grewal & Kahlon, 1974; Chadha, 1986; Singh, 1995; and Sidhu & Johl, 2002). Mechanized intensive cultivation of wheat and paddy led to a sudden rise in activities. Therefore, the demand for hired labour increased substantially during Punjab's sowing and harvesting periods (Singh, 2020). The labour demand in agriculture operations is considerably reduced during the rest of the year.

It is widely believed that farm mechanization in intensive commercial agriculture areas like Punjab displaced labour in agricultural operations in the 1970s and

early 1980s. Its severity further increased in the 1980s and 1990s with the greater use of work substituting inputs (Sidhu & Grewal, 1990 and Rangi & Sidhu, 2004). In Punjab agriculture, the labour absorption trend noticed during the 1970s reversed in the 1980s and 1990s. The state entered the 21st century with the shift of labour from agricultural works to non-farm jobs due to the capitalization and mechanization of farm operations (Singh et al., 2007; Toor et al., 2007; Jodhka, 2008; Singh, 2009; Institute of Applied Manpower Research, 2013; FICCI, 2015; Singh, 2016; Rathi, 2020; and Singh, 2020).

Thus, the excessive mechanization of various farm operations led to a peculiar pattern of scarcity and surplus labour, thereby depressing the state's employment in the agriculture sector (Kaur et al., 2018; NABARD, 2018; and Sharma, 2018). There has been a significant shift in agricultural labour absorption in the state. Moreover, the literature review has revealed that the micro-level primary studies on human labour use in various crops could not receive much consideration from researchers. The research from a spatial perspective has largely been missing on the theme. The present study is a modest attempt to fill this gap.

Objectives, Data Sources and Methodology

The paper has a two-fold objective: (1) to examine the changes in human labour use in major crops cultivation from 1987 to 2017; and (2) to analyze person-hours used in cultivating major crops in Punjab in 2017.

A well-structured interview schedule collected primary data on seven major crops. Such crops included paddy, wheat, potato, maize, cotton, vegetables, and fodder. The use of labour was calculated in person-hours to examine changes for 30 years in Punjab. The two normal agricultural years were selected, namely 2017 (year of field survey) and 1987. Due to manual and machine labour use variations, person-hours of selected crops were calculated by different farm sizes in each of the three agro-climatic regions for the selected years.

The 499 farms, selected through proportionate stratified random sampling from all over Punjab, were well distributed in three agro-climatic regions namely, north eastern sub-mountainous region, central plains region and southwestern plains region (Krishi Vigyan Kendra, Faridkot [GOP], 2017) of the state. Descriptive statistics have been used to analyze data/information. The spatial representation of data figures and maps has been designed and presented using

ArcGIS 10.0 software. The author held group discussions with the farmers to understand their perceptions of agricultural labour use in major crops.

Results and Discussion

This section has examined the changes in labour use and the present use of person-hours in selected crops across the three agro-climatic regions in Punjab. The use of human labour largely varies with the type of crops grown and areas in the state. The study revealed that paddy and wheat were the dominant crops grown over 58 per cent of the total cropped area of all selected farms in Punjab. Vegetables/other crops had about 13 per cent, followed by potato crops (10.06 per cent). Less than19.0 per cent of the total cropped area was collectively under fodder, maize, sugarcane, and cotton on sampled farms. The changes and use of labour in major crops, namely paddy, wheat, potato, maize, cotton, vegetables/others and fodder in the state, have been studied in detail in the following discussion.

Changes in Labour Use in Paddy

In all the sampled villages, paddy was a major crop. It has been noticed that the transplanting method, which requires a large amount of human labour, was the most commonly used in cultivating paddy. In addition, the work relating to weeding and harvesting paddy also requires manual labour. Such manual operations make paddy cultivation a more labour intensive crop in the state.

The analysis revealed that human labour use in paddy operations was 331.32 person-hours per acre in 1987. It declined to 234.43 person-hours per acre in 2017 (Table 1). Noticeably, overtime human labour use in paddy operations dropped by 29.0 per cent because of the increased use of labour-saving technologies such as weedicides, insecticides and combined harvesters (Devi, 2011; Narayanamoorthy et al., 2014; and Reddy et al., 2014). The analysis showed differences in the use of human labour in paddy cultivation across regions in 2017 (Table 2 and Map 1). The northeastern sub-mountainous region registered the highest use of 241.8 person-hours, followed by the southwestern plains region with 236.82 person-hours and the central plains region by 224.68 person-hours. Manual harvesting (28.85 per cent farms) on smaller holding sizes and uneven relief not favouring the use of machinery led to the highest use of person-hours in paddy in the northeastern sub-mountainous region of the state.

Table 1
A Changing Picture of Labour Use (person-hours/acre) in Major Crops
in Punjab, 1987-2017

Sr. No.	Crop/s	1987	2017	Change in Percent
1.	Maize	234.05	96.48	-59.0
2.	Cotton	316.74	136.73	-57.0
3.	Wheat	173.3	87.26	-50.0
4.	Potato	377.65	218.07	-42.0
5.	Rice	331.32	234.43	-29.0
6.	Vegetables	290	236.21	-19.0
7.	Sugarcane	505.93	539.55	7.0
8.	Fodder	326.52	641.1	96.0

Source: Collected through field survey conducted during March to June, 2017
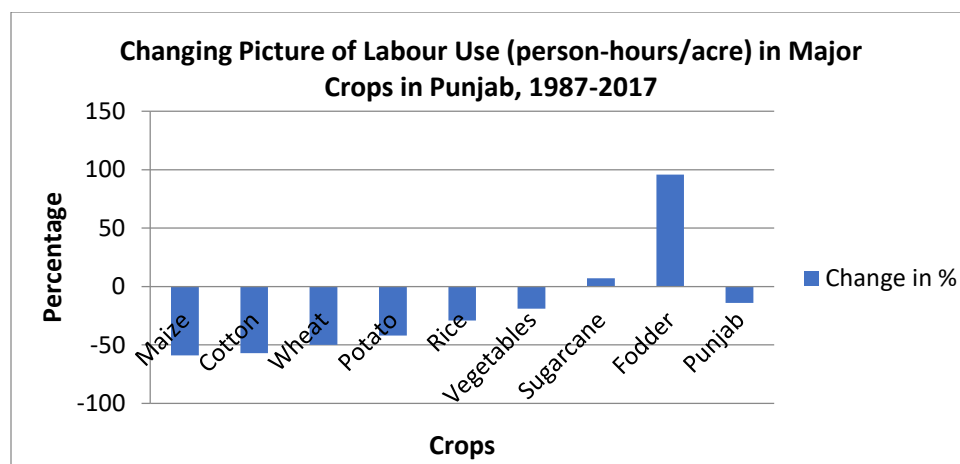
Figure 1

Source: Field Survey, 2017

Changes in Labour Use in Wheat

Wheat was the second key crop which constituted 27.53 per cent of the total cropped area of all selected farms in 2017. The study found that 91.38 per cent of farmers cultivated wheat on their farms, making it the most widespread crop in the state. The primary data analysis showed that 173.30 person-hours per acre were used in wheat cultivation in 1987. The use of person-hours declined to 87.26 per acre in 2017 (Table 1). The decline of 50 per cent in the use of human

labour was due to the increasing use of scientific methods of wheat cultivation (Devi, 2011; Narayanamoorthy et al., 2014; and Reddy et al., 2014). Regionally (Table 2/Map 1), the highest use of human labour (97.55 person-hours) in wheat was registered in the northeastern sub-mountainous region, followed by 86.98 person-hours in the southwestern plains region and the central plains region (78 person-hours) in 2017. Manual harvesting is more common (59.21 per cent of farms) in the northeastern sub-mountainous region, favouring the highest use of person-hours in this part of the state.

Changes in Labour Use in Potato

Potato is one of the high labour engaging crops, accounting for 10.1 per cent of the total cropped area on sampled farms in 2017. It was ranked 4th in the cropping pattern of sampled farms. The study showed that the human labour use in potato cultivation was 377.7 person-hours per acre in 1987, decreasing to 218.07 per acre in 2017 (Table 1). This showed that the human labour use in potato cultivation has declined by 42.0 per cent due to the high use of labour-saving farm machinery during the study period (Devi, 2011). It was found that only large and medium sampled farms were engaged in cultivating potatoes due to high labour costs and the risk of market price fluctuations. Among regions (Table 2/Map 1), manual sowing of potatoes in the northeastern sub-mountainous region is mainly responsible for using higher person-hours than the other two regions of Punjab in 2017.

Changes in Labour Use in Maize

Maize crop constituted 5.41 per cent of the total cropped area of sampled farms in 2017 in Punjab. The primary data reveals that the use of labour in maize was 234.05 person-hours per acre in 1987, which declined to 96.48 person-hours per acre in 2017 (Table 1). This decline of 59 per cent in the use of person-hours during the reference period was due mainly to an increase in the use of farm machinery in weeding and threshing operations of maize (Reddy et al. 2014). Regionally speaking, the use of person-hours in maize cultivation was the highest (98.53) in the northeastern sub-mountainous region and lowest (83.16 person-hours) in the central plains region in 2017 (Table 2 and Map 1). The predominance of manual cultivation operations on small undulated fields is behind this scenario.

Changes in Labour Use in Sugarcane

The sugarcane, long duration and high labour-demanding crop, occupied only about 4.0 per cent of the total cropped area of sampled farms of Punjab. The

average human labour use in sugarcane cultivation was 505.93 person-hours per acre in 1987. It rose to 539.55 person-hours in 2017, registering an increase of 7.0 per cent during the reference period (Table 1). The introduction of new varieties, which require frequent and intensive irrigation, was reported as the main reason by many sampled farmers for increased manual labour. Table 2 and Map 1 depicted regional differences in manual work in sugarcane in 2017. The northeastern sub-mountainous and southwestern plains regions recorded higher use of person-hours of labour than the central plains region. The manual operations such as weeding, frequent irrigation and tying the standing crop in bundles are ascribed to the higher use of person-hours in northeastern sub-mountainous and southwestern plains regions.   Intensive

Changes in Labour Use in Cotton

Cotton, a significant summer crop, is predominantly cultivated in the southwestern plains region of Punjab. It constituted nearly 11 per cent of the total cropped area of sampled farms in this region. The favourable climatic conditions led to cotton cultivation in this part of the state. Table 1 and Map 1 reveal that labour use in cotton cultivation declined by 57.0 per cent in person-hours: from 316.74 per acre in 1987 to 136.73 per acre in 2017. The decline in the use of person-hours during the reference period is mainly due to an increase in modern technologies in the sowing and weeding operations of cotton (Reddy et al., 2014).

Changes in Labour Use in Vegetables

In the present study, vegetable crops are clubbed together to analyze the human labour use in their cultivation. The main vegetables grown on sampled farms include Capsicum, Cauliflower, Peas, Cabbage, Pumpkin, Lady Finger, Tomatoes, Brinjal, Tar Cucumber, Chilies etc. The cropped area under these vegetables was 12.94 per cent on all sampled farms. Vegetable crops were in 3rd position in the cropping pattern of sampled farms in Punjab. Vegetable farming generates high labour employment due to its manual operations. It was observed that the human labour use in vegetable cultivation was very high (236.21 person-hours) than all other crops, excluding sugarcane. Table 1 revealed that human labour use in vegetable farming operations was 290 person-hours per acre in 1987. It reduced to 236.21 person-hours per acre in 2017 by registering a decline of 19.0 per cent. The use of labour-saving technologies like tractor operated ploughs, insecticides, weedicides, and sprayers were responsible for this decline

during the reference period. The study highlighted that the decrease in person-hours of labour used in vegetable crops was least among all crops cultivated on sampled farms. It signifies their capacity to absorb displaced labour from other crops in Punjab. Table 2/Map 1 presents the regional variations in person-hours in vegetable farming in Punjab in 2017. It depicts that the highest use of person-hours (236.53) was recorded in the central plains region due to manual preparatory tillage operation by marginal and small farmers. It was closely followed by the southwestern plains region (236.02 person-hours) and northeastern sub-mountainous region (233.93 person-hours).

Changes in Labour Use in Fodder

Fodder constituted 7.73 per cent of the total cropped area and was found to be grown on almost all sampled farms. Data analysis showed a steep increase (96 per cent) from 326.52 person-hours per acre in 1987 in fodder cultivation to 641.1 person-hours per acre in 2017 (Table 1). The increase in person-hours of fodder cultivation was mainly due to the farmers' increasing tendency to grow higher-yielding varieties of winter and summer fodder crops in a single crop season. Among agro-climatic regions, the southwestern plains region registered the highest manual work (659.28 person-hours), followed by the northeastern sub-mountainous region (650.87 person-hours) and central plains region (613.14 person-hours) in fodder operations in 2017 (see Table 2 and Map 1).

Table 2

Labour Use (Person-hours per Acre) in Crop Farming by Regions, 2017

Crop	Punjab	Southwestern Plains	Central Plains	Northeastern sub-mountainous
Potato	218.07	217.5	217.7	**219.5$**
Sugarcane	539.55	544	530.65	**544$**
Maize	96.48	*	83.16	**98.53$**
Vegetables	236.21	236.02	**236.53$**	233.93
Paddy	234.43	236.82	224.68	**241.8$**
Cotton	136.73	136.73	*	*
Wheat	87.26	86.98	78	**97.55$**
Fodder	641.1	**659.28$**	613.14	650.87

Source: Field survey conducted from March to June 2017, *No Cultivation of Crop on Sampled Farm $ Highest Use of Person-hours

Map 1
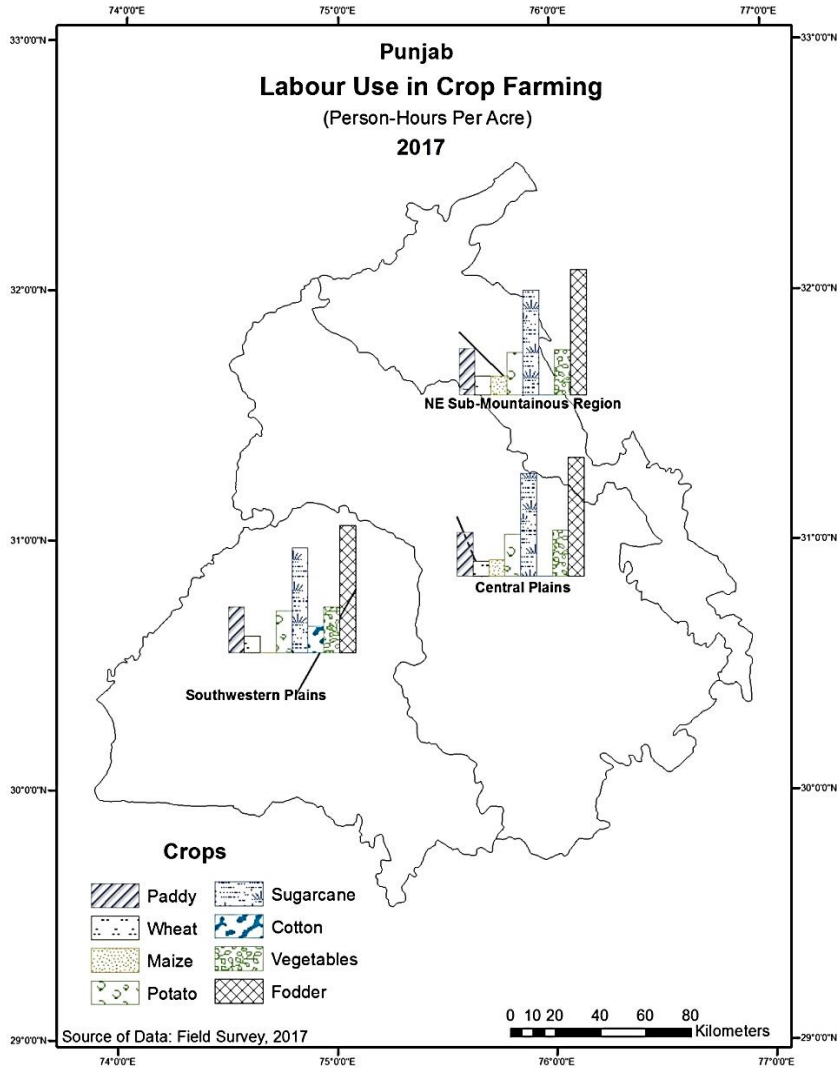
Conclusions and Recommendations

The wheat-paddy crop rotation dominates Punjab agriculture. The collective share of other cops in the total cropped area was very less on the sampled farms in the state. There has been a steep decline in the use of labour (person-hours) in major crops, namely maize, cotton, wheat, potato, paddy and vegetables, during

the study period. The application of scientific cultivation methods and higher use of farm machinery and chemical inputs are ascribed to this decline. However, labour use has gone up in sugarcane and fodder cultivation. The increase in irrigation intensity of high yielding sugarcane varieties and the practice of growing more fodder crops in a crop season are behind this increase in the use of human labour. In comparative terms, the decrease in the use of person-hours in vegetable cultivation was smaller than the rest of the crops grown on sampled farms in Punjab. This is mainly because of the higher potentiality of vegetable farming to absorb human labour since only limited use of farm machinery is possible in its weeding and harvesting operations. This highlights that vegetable crops can still employ displaced labour from other crops, especially in the central and southwestern plains regions with vegetables as a third-ranking crop.

Briefly, the displacement of manual labour in farm operations by the farm mechanization process in Punjab is severe. Displaced farm labour have to look for alternative work opportunities for livelihood. They have to commute to a nearby town searching for a job as casual labour in construction activities and or security guards.

In this context, encouragement to vegetable and potato cultivation by the Government of Punjab under its crop diversification policy can play a decisive role in absorbing rural labourers in the rural sector. It has been found that the short maturing varieties of these two crops were cultivated more than once in a single crop season on sampled farms, particularly in the central plains region. Assured marketing of these crops is a significant hindrance in their adoption by the farmers. So, contract farming with assured marketing of vegetables and potatoes is a viable option to increase the dwindling farm incomes from wheat-paddy rotation and enhance the employment of labour opportunities, especially the females in rural areas. Alternatively, the state government may devise an approach to absorb displaced farm labour in the non-farming activities under medium, small and micro enterprises (MSME) through short term skill development programs in the state.

References

Chadha, G. K. (1986). *The State and Rural Economic Transformation: The Case of Punjab, 1950-1985.* New Delhi: Sage Publications.

Devi, Y. L. (2011). *Agricultural Labour Employment in Punjab, M.Sc. Thesis (unpublished).* Department of Economics and Sociology. Ludhiana: Punjab Agricultural University. Retrieved March 11, 2018, from http://krishikosh.egranth.ac.in/displaybitstream?handle=1/5810001613

Federation of Indian Chambers of Commerce & Industry (FICCI). (2015). *Labour in Indian Agriculture: A Growing Challenge.* Mumbai: KLYNVELD PEAT MARWICK GOERDELER (KPMG) India Private Limited. Retrieved March 11, 2017, from http://ficci.in/spdocument/20550/FICCI-agri-Report%2009-03-2015.pdf

Ghuman, R. S. (2005, October 08). Rural Non-Farm Employment Scenario: Reflections from Recent Data in Punjab. *Economic and Political Weekly, 50*(41), 4473-4480.

Gill, S. S., & Ghuman, R. S. (2001). Changing Agrarian Relations in India: Some Reflections from Recent Data. *Indian Journal of Labour Economics, 44*(4), 809-826.

Government of Punjab (GOP). (2004). *Human Development Report.* Chandigarh: Government of Punjab.

Government of Punjab (GOP). (2017). *Krishi Vigyan Kendra, Faridkot.* Ludhiana: Punjab Agricultural University.

Grewal, S. S., & Kahlon, A. S. (1974). Factors Influencing Labour Employment on Punjab Farms. *Agricultural Situation in India, 29*(1), 3-5.

Institute of Applied Manpower Research (IAMR). (2013). *Rural Non-Farm Employment: A Study of Punjab.* New Delhi: Planning Commission, Governmnet of India.

Jodhka, S. S. (2008). The Decline of Agriculture. In S. K. Bhaumik, *Reforming Indian Agriculture* (pp. 96-116). New Delhi: Sage Publications.

Kaur, M., Singh, S., Singh, J., Singh, J. M., Kingra, H. S., & Sachdeva, J. (2018). *District-wise Cost of Cultivation of Important Crops in Punjab.* Department of Economics and Sociology. Ludhiana: Punjab Agricultural University. Retrieved March 20, 2020, from http://www.pbplanning .gov.in /pdf/COCbriefreport.pdf

Narayanamoorthy, A., Bhattarai, M., Suresh, R., & Alli, P. (2014, July-September). Farm Mechanization, MGNREGS and Labour Supply Nexus: A State-Wise Panel Data Analysis on Paddy and Wheat Crop. *Indian Journal of Agricultural Economics, 69*(3), 320-335. Retrieved March 15, 2020, from https://tind-customer-agecon.s3.amazonaws. com/177f6a88-1176-4e51-baee-f3f1f72ec4f5?response-content-disposition=attachment%3B%   20filename%2A%3DUTF-8%27%2711-A%2520Narayanamoorthy-01-n.pdf&response-content-type=application%2Fpdf&X-Amz-Algorithm=AWS4-HMAC-SH

National Bank for Agriculture and Rural Development (NABARD). (2018). *Sectoral Paper on Farm Mechanization.* Mumbai: Farm Sector Policy Department, NABARD Head Office. Retrieved March 20, 2020, from https://www.nabard.org/auth/writereaddata/file/NSP%20Farm%20Mecha nisation.pdf

Raju, S. S., Suresh, A., Chand, R., & Chauhan, S. (2015, February). Pattern and Trend in Labour Use in Indian Agriculture: An Analysis Across Major Crops and States. *Economic Affairs, 60*(1), 99-108. doi:10.5958/0976-4666.2015.00014.5

Rangi, P. S., & Sidhu, M. S. (2004). New Farm Technology and Changing Structure of Agricultural Labour Employment in Punjab. *Man and Development, 26*(3), 61-80.

Rangi, P. S., Sidhu, M. S., & Singh, H. (2001). Casualisation of Agricultural Labour in Punjab. *Indian Journal of Labour Economics, 44*(4), 957-970.

Rathi, A. (2020). Is Agrarian Resilience limited to Agriculture? Investigating the "farm" and "non-farm" processes of Agriculture Resilience in the rural. *Journal of Rural Studies*, Article in Press. doi:10.1016/j.jrurstud.2019 .12.015

Reddy, A. A., Rani, C. R., & Reddy, G. P. (2014, July-September). Labour Scarcity and Farm Mechanisation: A Cross State Comparison. *Indian Journal of Agricultural Economics, 69*(3), 347-358. Retrieved December 29, 2019, from https://pdfs.semanticscholar.org/ad0e/2164e2 fe9de2f19634a8040830d941cd5138.pdf

Sharma, A. (2018, September 14). Punjab Labour Shortage-Rising scarcity of farm workers pushes up production cost, inclination towards machine farming. *First Post*. Retrieved September 14, 2018, from

https://www.firstpost.com/ india/punjab-labour-shortage-rising-scarcity-of-farm-workers-pushes-up-production-cost-inclination-towards-machine-farming-5183551.html

Sidhu, R. S., & Grewal, S. S. (1990). Factors Affecting Demand for Human Labour in Punjab Agriculture: An Econometric Analysis. *Indian Journal of Agricultural Economics, 45*(2), 125-133.

Sidhu, R. S., & Johl, S. S. (2002). Three Decades of Intensive Agriculture in Punjab: Socio-Economic and Environmental Consequences. In S. S. Johl, & S. S. Ray, *Future of Agriculture in Punjab* (pp. 16-39). Chandigarh: Centre for Research in Rural and Industrial Development.

Sidhu, R. S., & Singh, S. (2004, September 11). Agricultural Wages and Employment in Punjab. *Economic and Political Weekly, 39*(37), 11-17.

Singh, L., Singh, I., & Ghuman, R. S. (2007). *Changing Character of Rural Economy and Migrant Labour in Punjab.* Retrieved December 26, 2018, from www.mpra.ub.uni-muenchen.de/6420/

Singh, M. (1995, December 30). Capitalist Agriculture and Freedom of Labour. *Economic and Political Weekly, 30*(52), 3390-3393.

Singh, P. (2016). *Agricultural Labor Shortage in Punjab: A Case Study of Muktsar District.* Riga: LAP LAMBERT Academic Publishing. Retrieved December 20, 2019, from https://www.amazon.com/Agricultural-Labor-Shortage-Punjab-District/dp/3330003219

Singh, S. (2009, July 18). Survival of Agricultural Labour in Punjab: A Burning Question. *Economic and Political Weekly, 44*(29), 24-25.

Singh, S. (2020). Spatio-Temporal Changes in the Patterns of Male and Female Agricultural Labour in Punjab: A Geographical Analysis. *Asian Journal of Agriculture and Rural Development*, *10*(1), 183-193. DOI: 10.18488/journal.1005/2020.10.1/1005.1.183.193

Singh, S., & Bhogal, S. (2016, May 3). The Forgotten Ones: Looking at agricultural labourers. *The Tribune*. Retrieved March 21, 2019, from https://www.tribuneindia.com/news/comment/the-forgotten-ones-looking-at-agricultural-labourers-230994

Toor, M. S., Bhullar, A. S., & Kaur, I. (2007). Agriculture Led Diversification and Labour Use in Punjab: Potentials and Constraints. *The Indian Journal of Labour Economics, 50*(4), 737-746.

Girish Karnad's Folk Plays: Quest for Indigenous Theatrical Idiom

PRAGTI SOBTI

Abstract

In the past few decades, regional cultural expressions and folk lore have drawn the attention of art lovers in India, which has lead to the revitalization of ancient and medieval indigenous forms of literature and performing arts. Folk Literature is considered to be the finest blend of reality and myth. Mainstream literature fuses with local knowledge systems and the result is folklorish version which is delineated through folk art and practices. Considered obsolete during colonial period, Indian folk theatre was rediscovered by the consistent efforts of playwrights like Vijay Tendulkar, Girish Karnad, Badal Sircar, etc. With drama as his chosen literary genre Girish Karnad has carved a special niche for himself among the post independence playwrights as his creations resound the interfusion of Indian mythology, dramatic traditions, history and folklore. With the objective of highlighting Karnad's use of indigenous theatrical forms amalgamated with western dramatic traditions to depict Indian sensibility in his folk plays, the paper attempts to explore the juxtaposition of mythological episodes, folktales and historical events with the contemporary social situations in folk plays of Karnad.

Key Words:　Folk Literature, Folk Theatre, Dramatic Traditions, Indigenous Techniques, Performing Arts.

Society is a colorful tapestry of many cultures and traditions, the warp and woof of which is the diversity of its native people. Each culture express a community's unique way of life through a set of customs, knowledge systems, beliefs, literature, performing and non-performing arts through its spatial, social, spiritual and experimental dimensions through Folklore, which is probably the most important and well-acclaimed component of

the cultural heritage of a civilization. Folklore, which embodies a synthesis of the "folk" and the "lore" become the foci for common sharing and creativity of all culture and humanity being "fun" as part and parcel of the sense; gifted from one generation to another, functioning as a time binding cultural device because of their ability of transmitting the collected wisdom of human experience through generations. According to Chadwick,

> Folklore creates an interesting connect with the centuries old past through the storytellers and other forms by way of speaking in symbols, which can interpreted in so many ways, where the interpretation acquires infinite shades, exhibiting enormous rainbow of every possible color of civilization; entrancing us into exploring our creative possibilities and conceptual flexibility.(p.12)

Folk literature is a true reflection of the cultural beliefs, customs and traditions followed by the people of a particular society. This includes folksongs, myths, legends, epics and folktales which acquaints us with the fundamental principles on which society is based. Indian folktales explore a wide range of themes: magic, adventure, love, romance, local deities, medieval heroes etc. Quinn opines, "Folktales have been an unending source of literature for ages. They are 'short narratives of unknown authorship which have been passed on orally from generation to generation" (133).   The folk tradition, that includes folktales and folk art forms, has provided literary artists with important themes and techniques. To literary artists, it offers a great scope to articulate their creativity. Folktales inform them about beliefs, crafts, speech, legends, songs, rituals and stories of a particular culture.

India occupies a significant place in history of folktales. Being a multilingual and multicultural nation, India has tremendous corpus of folktales that would suffice many generations. Based on traditional language and culture Indian Literature hails from varied religious,

regional, social and tribal coteries and has played dominant role in dissemination and preservation of oral traditions and folklores. Some of the important folk tales recorded in Indian literature are the P*anchtantra*, the *Kathasaritasagara*, the *Jataka tales*, and *Vetalpanchavimashika*, and the most recent book by A.K. Ramanujan, *Folktales from India* (1994). Some folk tales relate the stories of gods and divine beings. They narrate the achievement of heroic characters from mythologies. However, they lack complexity and universality of myths. So also the heroic nature of myths is substituted by domesticity in folktales.

A.K.Ramanujan, the mentor of Girish Karnad, thought that we cannot understand the public and domestic culture fully without knowledge the folk tales, he states

> All the cultural performances such as classical epic or theatre, or modern films and political rhetoric have their roots in oral traditions and folk forms. The important aspect of folktales is that they are auto telic- they transmit by themselves whenever they are retold. They undergo variations whenever they are transmitted through generations and from places to places (xx.)

Folktales have narrative and dramatic quality. They embody great possibilities for their adaptation in performing arts such as drama. The invaluable information embedded in folktales about the people, their gods/goddesses and rituals, superstitions, songs, proverbs, riddles, worldview of a particular culture is a great source of textual material for playwrights. The performances of these tales resulted in the origin of traditional theatrical forms. Along with the development of Classical drama, the folk theatre (which was of spontaneous and extempore nature) too flourished in India as it catered to the needs of common masses due to use of local dialects accompanied with dance and use of indigenous musical instruments belonging to particular region. These indigenous theatrical styles posses their unique form depicted through use of

stagecraft, acting style, costumes, make-up and place of performance. Their practice and performance itself provide with the theoretical framework or conventions or laws of such performative arts. The memory of their performances in the minds of people helps us document the features of these arts. In India, there are many traditional theatrical forms: *Bhavai, Kutiyattam, Yakshagana, Bhagavatmel and Kucipudi, Chau, Ramlilla, Raslila and Krisnalila, Yatra, Nautanki, Pala, Tamasha* and so on. However, during the colonial period, these art forms had suffered a planned obsolescence at the hands of so called 'English literate elites'. They lost popularity due to the arrival of urban enclosed proscenium theatre especially popularized by Parsi theatre groups.

Indian playwrights' 'encounter with tradition' after independence led to various attempts at reinventing and rejuvenating many indigenous forms of drama and performing arts. A very good account or documentation of these forms in *Traditional Indian Theatre* (1980) by Kapila Vatsyayan brought into focus various hitherto unknown theatrical forms from *Kutiyattam* to *Yakshangana*, *Ramlila* to *Yatra*, and from *Bhavai*to *Tamasa*. These forms are indigenous in the sense that they existed before colonialism and survived the onslaught of European theatre. Aparna Dhawadkar views this situation as,

> Most of the critical and creative engagement with indigenous forms in the post-independence period has come to centre on the folk performance genres popular in various rural regions throughout the country because the category of the "folk" brings into play the most complex range of ideological, political, sociocultural, and aesthetic polarities in contemporary India. (311).

Dharwadkar thinks that folk drama is 'essentially stylized, antimodern, antirealistic, open air and environment' friendly performances and it represents 'total theatre' which is 'antithetical to the seemingly regimented products of the enclosed proscenium stage' (312).

It was IPTA (Indian People's Theatre Association) that set out with an initiative to rejuvenate the cultural awakening of the masses of India and revitalize the traditional art forms to showcase India's 'rich cultural heritage'. A need to reinvent something that is native and known to people of generation (something that is very close to their heart) was felt and this gave an opportunity to the organization such as the IPTA to exploit. They (inspired by Marxist ideology) used this platform to politicize some folk forms such as *Powada*, *Tamasa* (Maharastra) and *Jatra* (Bengal) to articulate their views against fascism, capitalism and imperialism.

The notion of 'Indianness' gathered momentum after independence and in all forms of literature there were attempts to create a unique 'Indian idiom' reflecting the glorious past of India. In drama, writers such as Chandrashekhar Kambar, K.N. Panikkar, Habib Tanvir, Girish Karnad, Ratan Thiyam have conspicuously turned to folk and traditional theatrical forms and drawn from sources like myths, folk, *Puranas* and history. According to Girish Karnad, "the basic concern of the Indian theatre in the post-independence period has been to try to define its 'Indianness*"* (315). Hence, these writers experimented with various folk or traditional forms of their regions; and nowadays their names are generally associated with these forms whenever discussion regarding them occurs: Karnad and Kambar with *Yakshagana* and *Bayalata* (Karnataka); Panikar is associated with *Kakkarissi Natakam*(Kerala); Habib Tanvir with forms of tribal in Chhattisgarh; and Ratan Thiyam is linked with the Meitei tribal culture (Manipur).

Contemporary Indian Dramaturgy will always be indebted to Girish Karnad for blending Indian culture and tradition with western dramatic aesthetics and craft in his plays. Perhaps he is among those Indian playwright whose works have won accolades on international stage too, because of the fine amalgamation of Oriental themes and occidental style. Bhanu Bharti, Director of Karnad's play *Tughlaq* says, "Girish Karnad

explored mythology and history with the vision of a modernist, resulting in the creation of great theatrical works."

Karnad was deeply influenced with the dramatic style of Sri Aurobindo and Tagore and like them used Indian legends, folktales and histories to delineate the contemporary situations along with literary purport. Drama is considered to be the chief performative art which possess the quality to gratify the audience having diverse tastes. Thus, Karnad used this form of performative art to revive the folk tales and folk theatrical style. He employs both themes and techniques of folk theatre in his plays *Hayavadana, Naga-Mandala* and *Flowers*. In each of the plays (discussed in the paper), Karnad has tried to juxtapose past and present under the cover of a legendry or historical narrative, which is one of the characteristic feature of his dramatic art. Not only the narrative but also the style echoes the traditions of Indian folk theatre like use of dance, curtains, mime, dolls, story within a story, commentator-narrator, epilogue, etc. The main plot of *Hayavadana* is taken from popular Sanskrit stories known as "*Vetalpanchavimashika*" (i.e. twenty five stories that *Vetal*, the goblin, tells King Vikrama). These stories are part of Somadeva's *Kathasaritsagara*. In all these stories Vetal at the end of his story telling poses a riddle and asks the king to solve it. The King always succeeds in solving the riddle. However, the most immediate source of *Hayavandana* (1971) is Thomas Mann's *Transposed Heads* (1940). *Naga-Mandala* (1990) centers around oral tales that A.K. Ramanujan told Karnad, believed to be narrated by elderly women while children are being fed in the evening or being put to bed. And the play *Flowers* (2004) is grounded on a folk tale hailing from the Chitradurga region of Karnataka.

Though Karnad has borrowed the central theme of his play from Mann's narrative yet has infused Indianness in it by adding the story of *Hayavadana* and thereby justifying the title *Hayavadana* .*Hayavadana* depicts the story of a man who wants to get rid of his horse head. While

praying in Kali temple he pleads the Goddess to complete him and fulfilling his wishes Goddess makes him a complete horse with human voice. The story within the play also deals with characters of Devaddatta, Kapila and Padmini. When Devaddatta realizes Padmini's secret desire for Kapila, he cuts off his head in temple of Kali. Struck with grief on seeing his friend's dead body- Kapila too cuts his head. When Padmini sees the two of her dear ones lying dead, she also tries to kill herself. However, the Goddess prevents her from killing herself. The Goddess asks her to join the heads of these two men to their respective bodies to bring them back to life. Padmini in her confusion puts the head of her husband Devaddatta on his friend Kapila's trunk and vice versa. This creates a very embarrassing situation for her.

Thus the story ends with the transposition of heads. But Thomas Mann in his novella, *Transposed Heads* elaborated and enriched the story by making some addition which actually questions the logic behind the solution offered to Madan Sundari's dilemma in the original tale. He succeeds in avoiding the problem of incest by inventing characters having no relation. The original version poses a 'moral problem' whereas Mann ridicules the very distinction between body and soul, and the supremacy of head over body. Karnad, however, has a different concern, that is, "human identity in a world of tangled relationship" (Kutakotivi). He manipulates the very concepts of rational and physical, and presents the never ending search of human beings to achieve perfection and completeness.

Hayavadana is known for the use of *Yakshagana*, a popular folk from Karnataka. There is a use of Bhagavata narrative, invocation, masks, music, appearance of gods and goddesses-etc. Some of the folk motifs and convention also adorn the play like use of masks, story-within-story, talking animals and dolls, miracles etc. so also, into its structure is woven songs rich with folk melodies. It also creates a world of 'incomplete individuals, indifferent gods, dolls that speak and children who cannot, a

world indifferent to the desires and frustration, joys and sorrows of human beings'(Kurtkoti,vii).With *Hayavadana*, Karnad shows his inclination for indigenous theatrical forms. Karnad makes use of the *Yakshagana* to show its applicability and relevance to the contemporary theatre in India.

The play opens with Shri Ganesha *poojan*. The Bhagavata invokes Shri Ganesha for the successful performance of the play. As in a *Yakshagana* performance, the *Bhagavata* engages in conversation with the Actor, the *Hasyagana.* The songs of the *Bhagavata,* Female Chorus and some characters add musical quality to the performance. The inappropriate appearances of things and characters for the audience are not directly shown on the stage. A curtain is put to cover their entry. For example, the entry of Hayavadana is covered with the curtain. Curtains are also used to suggest the entry of Goddess *Kali* and *Padmini's* sacrifice as Sati. Similarly the climax of the play involves a fight between Devadatta and Kapila as it happens in *Yakshagana* performance. The play ends with thanksgiving to Shri *Ganesha* for blessing the performance with success.

Two folk tales from state of Karnataka serve as basis for the play *Naga – Mandala*. The first tale discusses the nature of the oral tales .In the second tale narrative warps around a woman, her husband and Naga (the snake) her lover. The first tale offers commentary on the paradoxical nature of oral tales in general. They are independent existence of their teller and could survive only when they are transmitted from one person to another. Encapsulated within this tale is the tale of Rani who invents tales to fill the void of her life. According to Mukharjee

> *Naga-Mandala* combines two folk tales. The framing story describes the gathering of the flames in a dilapidated temple after the lamps in the village homes have been extinguished. The gossip of the flames is overhead by a playwright who is condemned to die unless he can keep awake the whole night. The story the playwright hears is about a woman, her husband, and her snake-lover(42).

Story of *Naga-Mandala* revolves around the characters of Appanna, Rani, and Naga. Suffering due to her husband's indifference and ill treatment, Rani is advised to prepare a potion with mystical root and give to Appanna to draw him towards her. But aghast due to change of color of the curry after addition of magical root she disposes it off in a nearby anthill where a snake (Naga) drinks it and due to effect of the root falls in love with Rani and visit her in form of Appanna .When Rani becomes pregnant, her husband doubting her character forces her to prove her innocence. Rani readily accepts the snake ordeal in front of whole village community and when the Naga (her lover) does not bite her she redeems her lost reputation.

These tales are not just specific to Karnataka as they are found in oral literatures of other regions too. The second story of *Rani* who is confronted with a ruthless husband who visits at daytime and a loving Naga disguised as her husband who comes in bedtime echoes that such tales are found in some other regional folk literatures too, such as the story of *Ahilaya* in *Valmiki Ramayana. Indra* impersonating as her husband, *Gautama,* devastated her chastity. The use of something magical to win the love of man is also found in *Mahabharata. Kunti* too like *Kurudavva* served a mendicant in mind and spirit and in return got some powerful Mantras with the help of which she engaged elemental gods to give birth to powerful sons. She shared that knowledge with *Madri,* the second wife of her husband, *Kurudavva* too shares the knowledge of magical roots with Rani and asks her to use them to win the heart of Appanna. Hence, the story of Rani resembles the story of any common woman who goes through the same predicament. In his interview, with Tutun Mukherjee,Girish Karnad quotes A.K. Ramanujan's remark:

> Ramanujan remarked that the tale reflected the experience of the India woman in the joint family system. She is confined in her home. The husband is like a stranger during the day; at night he

becomes the lover. So there is no complete relationship. He said that this tale also represented such a dichotomy of the woman's experience. Story-telling provides the mode for expressing the yearning for love of the women often deserted or neglected in the patriarchal social system (Tutun43).

Music and theatre are taken as two sides of a coin in Indian folk theatre. Y*akshagana* being a dance drama employs use of song to narrate important events. In *Naga-Mandala,* Girish Karnad has made use of musical element twice to highlight the theme (song sung by chorus consisting of female flames). He also employs the mask of cobra to show transformation of Appanna into a *Naga* to highlight linkage with Indian rituals and theatre. He aptly employs the folk dramatic form mixing it with frame narrative form. The play contains the features of the Folk or Oral theatre such as the use of story teller, songs mediating narrative, use of magic, disguise elements, non-human characters, the presence of the narrate and so on. The play has the "Man" and the 'Story' as narrator, songs of the Flames, the magical roots, the *Naga* disguising as human, etc. Under the influence of Brechtian Epic Theatre Karnad has also deployed "alienation effect" by rejecting the significance of catharsis and emotional identification. While discussing the influence of Brecht's theatrical teachings on him, particularly in the context of use of indigenous dramatic forms, Karnad says, " I read the basic Western canon- the Greek plays, Shakespeare, Shaw, O'Neil, Brecht, Beckett, Sarte, Camus. Brecht's technique influenced me a great deal in earlier years"(Dodiya,41).Though the play departs from conventional style at some places due to application of "alienation effect" yet the charm and vibrancy of folk theatre is maintained.

*Flowers*is based on the legend of Veeranan which was popularized by T.R. Subbanna who used it in his novel, *Hamsageethe* (1952). The story of *Veeranna,* the priest *of Hidimbeshwara* temple, is associated with the fort

of *Chitrakdurga.* The *Nayakas,* the Poleygars of *Chitradurga* were very religious and god fearing people. Their each generation built a new temple. Hence, there were many temples. The king used to start and end his journey by paying visits- to all these temples. The last temple used to be the temple of Lord *Hidimbeshwara* (temple of Shiva), the place where, according to the myth, *Bhima* vanquished *Hidimba.*

Veeranna was the priest of the Shiva temple; the first priest being his great grandfather. With the help of bells of each temple, he could know exactly when the King would arrive at the temple. The ringing of melodious bells of nearby *Ekanathamma* temple used to indicate him about the imminent visit of the King. Then he would start his preparation for worshiping the *lingam* and offered *Prasad* to the King on his arrival. Only on the day his father passed away, this very routine was broken. *Veeranna* had a wife who was not in the best of her health. Hence, he used to fulfill his passion with one of the maids of a court dancer. He used to visit her home after finishing with the priestly duties at the temple. He used to please her by offering her the flowers used for the *pooja. Veeranna* had the court musician *Venkatsubbayya* as one of his best friends. *Venkatsubbayya,* also known as *Subbanna,* used to sing in the court and the temple.

One evening the King could not visit the temple on his stipulated time as there was the wedding ceremony of the Prince. *Veeranna* too through that the King would not come that evening. Hence, he performed the *pooja* and went to the maid straightway without waiting for the King. He offered the jasmine garland to the maid who put it in her long hair. Just before they were about to make love, he heard the bells signaling the visit of the King. He just started for the temple taking the garland with him to perform the *pooja* again. He opened the door and started preparation for the *pooja.* Soon the King and the Court musician entered the temple. The priest performed the *pooja* and gave the same Jasmine garland to the King as *Prasad.* When the King accepted the flowers in his palms, to his surprise

he found a long hair in them. He directly asked the priest whether the lingam had grown long hairs. The priest answered in the affirmative. The King insisted on finding personally whether the lingam really had long hairs. The court musician, however, persuaded him to visit the temple in the morning for inspection as it was too late. The King left the place in anger to come in the morning again to see whether what the priest had said hold truth. Through the night, the musician and the Priest both prayed to the lingam and requested it to save them from disgrace. A seven headed Serpent appeared to bless them and assured them that they would be saved the next morning.

The King came to the temple in the morning to inspect the Sanctum sanctorum. On his arrival the priest performed his normal *pooja*. The King asked the musician to check the lingam on his behalf but the later refused. The priest insisted on the King to enter the sanctum sanctorum to see personally whether the lingam had long hair. There are two versions available of the aftermath. According to one version, the King dared not to enter the temple and apologized for suspecting the Priest; the second version tells us that the King did enter the temple and found out that the lingam had long hairs. He even checked whether they were real hairs by pulling them. But to his surprise, they turned out to be real as their roots contained the drops of blood.

Though saved by the *lingam, Veeranna* killed himself by cutting off his head with a sword that afternoon. The musician *Subbanna* too stopped singing in the court. The King, as a result, repented over hits behavior. He, then, made a stone figure of *Veeranna* and placed it near the temple. However, according to the tale, the incident was followed by many misfortunes in the region of *Chitradurga*.

In his play *Flowers* Karnad has tried to encompass the Indian performance tradition of "Katha Kalakshepam" which entails the delineation of mythological stories by a single narrator. *Flowers* is also a monologue or

monodrama in which a priest narrates important events from his life. The priest directly addresses the audience by sitting near the topmost step of the temple tank. A monologue is meant to reveal the inner most recess of a character-speaker's mind. Here also, the priest reveals his predicament since he is torn between his spiritual love for the *Shiva lingam* and erotic love for the courtesan *Chandravati*; between his marital obligations towards his wife and sensual desire for *Chandravati*; and finally between passion and duty. Like other Karnad's character, he has to make a choice between these two, either the first or the second as Padmin's love for Devdatta and desire for *Kapila*, and *Rani's* cruel husband and loving *Naga* impersonated as her husband. Karnad has made use of set props like *linga*, water pots, flowers, silver plates, coconut etc. to make scenes more believable and realistic.

Both personal and cultural compulsions steered Karnad to present a perfect blend of past and present in his dramas. He had firm belief that oral history, folk lore and mythical narratives serve as connecting link between author and his reader/audience, and theatre plays a significant role in expressing these culturally reverberating fictions. His oeuvre echoes the balance between orality and print. All his major plays starting from *Yayati* to *Odakalu Bimba* have their roots in folk tales but lean on printed sources for their intricateness and heft.The application of devices and techniques from classical Sanskrit plays, Parsi Theatre Company Nataka's and from traditional theatres of *Bayalata* and *Kalapam* facilitated him to reduce the rift between the actor and the audience following the conventions of traditional performances. The folk tales disseminated through his plays get illuminated by Karnad's aesthetic vision .While retelling these tales through his plays, Karnad makes them reverberate and resonate with cultural vitality and universal human values, and thus succeeds in finding an indigenous theatrical idiom.

References

Chadwick, H.M. & N.K. (1980).*The growth of literature.* Streetford.

Dharwadkar, Aparna. (2008).*Theatres of independence.* OUP.

Dodiya, Jaswant. (1999). Introduction to three plays. *The Plays of Girish Karnad: Critical Perspectives.* Prestige.

Karnad, Girish.(2011). *Collected plays Vol. One.* OUP.

Kurtkoti, Kirinath. (1975). *Introduction, Hayavandana.* OUP.

Mukharjee, Tutun. (2008). In His Own Voice: A Conversation with Girish Karnad*. Girish Karnad's plays, performance and critical perspectives*. Pencraft International.

Quinn, Edward. (2004). *Dictionary of literary terms*. Harper Collins Publications.

Ramanujan, A.K. (2009). *Folktales from India*. Penguin Books.

Criminal Investigation in *Arthashastra*

RAM GOPAL

Abstract

It is a common belief that criminal investigation is a recent phenomenon, but contrary to this, it has its roots in ancient India which are brought out clearly in the Arthashastra. After giving an introduction to Arthashastra, in the first part, this paper outlines how the most important treatise on the Indian Administration provides the detailed account of the procedures for investigation of unnatural death and robbery, burglary, theft, assault and other offences. Taking clues from Book 3 and Book 4 out of 15 Books in Arthashastra, an effort has been made to delineate the scientific thought prevalent in the ancient India concerning the criminal investigation. The investigation by law enforcement agencies in modern times can find the mirroring of certain techniques used by them in the police administration even two millennia ago. In the second part, the provision of arrest and the adoption of methods of torture as legitimate means of investigation has been critically analyzed.

Keywords : Arthashastra, Death, Investigation, Arrest, Suspect, Torture

About Arthashastra:

Arthashastra is considered to be written by Kautilya in 3rd century BC and is composed in the form of 15 Books with a total of 150 chapters and about 6000 verses. The treatise is originally in Sanskrit and has been translated and analysed several times. First authentic translation in English was done by R. Shamastry in 1915. R.P Kangle (1960) and L.N. Ranarajan (1992) have further made studies on the manuscript and their work is acclaimed worldwide. Although the ancient text is considered to be a guide on Statecraft and describing the issues related to maintenance and expansion of jurisdiction, organs of a State, foreign relations etc. yet the detailed account of local administration is laid out to guide the State officials on issues concerning day to day administration.

Two important Books of Arthashastra viz Book 3 titled as "*Concerning Law*" and Book 4 "*The Removal of Thorns*" deal with the aspects related to Criminal Investigation. Book 3 has 20 chapters which deals with "*Determination of forms of agreements; determination of legal disputes; concerning marriage; division of inheritance; buildings; non-performance of agreements; recovery of debts; concerning deposits; rules regarding slaves and labourers; co-operative undertakings; rescission of purchase and sale; resumption of gifts, and sale without ownership; ownership; robbery; defamation; assault; gambling and betting, and miscellaneous*". It can be considered to be compilation of definition of various crimes and punishment is prescribed against each of them. Thus it can be safely considered to be a precursor to Indian Penal Code.

Similarly Book 4 has 13 chapters dealing with "*Protection of artisans; protection of merchants; remedies against national calamities; suppression of the wicked living by foul means; detection of youths of criminal tendency by ascetic spies; seizure of criminals on suspicion or in the very act; examination of sudden death; trial and torture to elicit confession; protection of all kinds of government departments; fines in lieu of mutilation of limbs; death with or without torture; sexual intercourse with immature girls; atonement for violating justice*". It provides procedures to collect evidence and the sufficiency of the same for inflicting punishment. Thus this book can be considered to be a precursor to Criminal Procedure Code and Evidence Act.

This article is focused on throwing light on certain important aspects of Criminal Investigation as provided in *Arthashastra* and the comparison of the same with the modern day police investigation.

PART - I

Investigation of Unnatural Death

Book 4 Chapter 7 of *Arthashastra* is on "**Examination of Sudden Death**". It describes the detailed procedure for Post-Mortem Examination of a dead body. It provides:

"In cases of sudden death, the corpse shall be smeared over with oil and examined.

Any person whose corpse is tainted with mucus and urine, with organs inflated with wind, with hands and legs swollen, with eyes open, and with neck marked with ligatures may be regarded as having been killed by suffocation and suppression of breathing.

Any person with contracted arms and thighs may be regarded as having been killed by hanging.

Any dead person with swollen hands, legs and belly, with sunken eyes and inflated navel may be regarded as having been killed by hanging.

Any dead person with stiffened rectum and eyes, with tongue bitten between the teeth, and with belly swollen, may be considered as having been killed by drowning.

Any dead person, wetted with blood and with limb, wounded and broken, may be regarded as having been killed with sticks or ropes.

Any dead person with fractures and broken limbs may be regarded as having been thrown down.

Any dead person with dark coloured hands, legs, teeth, and nails, with loose skin, hairs fallen, flesh reduced, and with face bedaubed with foam and saliva, may be regarded as having been poisoned.

Any dead person of similar description with marks of a bleeding bite may be considered as having been bitten by serpents and other poisonous creatures.

Any dead person, with body spread and dress thrown out after excessive vomiting and purging may be considered as having been killed by the administration of the juice of the madana plant.

Death due to any one of the above causes is, sometimes under the fear of punishment, made to appear as having been brought about by voluntary hanging, by causing marks of ligature round the neck."

The chapter also describes that the in case the death is due to poisoning, the undigested parts of the food shall be fed to birds for testing. Also if the

undigested parts are thrown in fire and they produce crackling sound and turn multicoloured, the poisoning is established. Similarly, when the body is cremated and the heart does not burn, then also poisoning is proved.

It is quite interesting that these assertions were made in 3rd century BC whereas the modern Medical Science has understood these concepts in recent times only. Thus the above principles act as a guide to police officers to conduct inquest (as per section 174 of Cr.PC). The police officer investigating the case of unnatural death is supposed to draw a panchanama in the presence of independent witnesses describing the features of dead body in detail, the body measurements, types and dimensions of the injuries, the presence of blood on clothes and surroundings etc. If the cause of death is apparent from the initial analysis, the same can also be mentioned in the inquest form. Thereafter the body can be sent for Post-Mortem in which the doctor is supposed to give the scientific reasons for the death. Thus it is clear that the findings of the science of forensic medicine were well known even in ancient India. The advancements in medical science during the ancient period as claimed by Indian Historians are thus corroborated.

Motive for murder and procedure of investigation

Kautilya also explains the motives for murder as anger which can be caused by an offence "*...against one's wife or kinsman, professional jealousy, hatred of a rival, a trade dispute, a partnership quarrel or a litigation before a court of law*". Similarly in cases involving murder and subsequent hanging or poisoning the likely suspects includes an excessively abused servant, a wife who has a lover, a kinsman coveting inheritance, wealth or woman. Thus it provides a guide to police for starting the investigation which is equally relevant in modern times also.

Arthashastra also provides the list of witnesses whom should be questioned and likely questions to be posed to them in case of a murder:

- Persons closely associated with the victim shall be questioned as to the possibility of the crime being committed by agents of the deceased, by thieves for the purpose of money or by enemies of someone else due to mistaken identity

- The close associates shall also be questioned about the person with whom the deceased was last scene, where did he stay and who took him to the scene of crime.

- Persons in the vicinity of the SOC shall be questioned separately about who brought the deceased to SOC and whether any suspicious behavior was observed like being armed or agitation or concealment etc.

- In case of unidentified bodies, Kautilya prescribes that the personal belongings of the person like clothes, dress and ornaments shall be examined. The dealers dealing with these articles should be questioned about the meeting with the deceased, reasons for his stay in that place, his occupation and dealings with the deceased.

- Suicide has been treated very harshly in *Arthashastra.* It provides that investigation should be done to ascertain whether any injustice has been meted out to the person who has committed suicide by hanging. However in case someone has committed suicide under the influence of anger or passion or any woman indulged in sin, there was bar on cremation of those dead bodies and these were to be dragged on streets. So much so that even the kin of the deceased and any person assisting them would meet the same fate if they failed to obey these instructions.

These points are attended to by the police officers now a days in almost all investigations of murder cases. The visit to scene of crime is considered the starting point of any investigation. The witnesses who are acquainted with the facts and circumstances of the case are examined as per

provisions of Section 160/161 Cr.PC. The points mentioned in *Arthashastra* are regularly followed by the investigating officers in modern day investigations. It shows that the procedure of investigation in ancient India was well developed, thus negating the theory of divine ordeal.

Robbery, Burglary, Theft, Assault and other Offences:

Book 3 Chapter XVII titled ROBBERY provides

"*SUDDEN and direct seizure (of person or property) is termed sáhasa; fraudulent or indirect seizure (niranvaye'pavyayanecha) is theft*"

It provides the different scale of punishment for robberies and thefts of different type of articles.

Similarly Chapter XIX titled as ASSAULT provides

"*TOUCHING, striking, or hurting constitutes assault.*

When a person touches with hand, mud, ashes or dust the body of another person below the naval, he shall be punished with a fine of 3 panas; with some but unclean things, with the leg, or spittle, 6 panas; with saliva (Chhardi), urine, faeces, etc. 12 panas."

Book 4 on "The Removal of Thorns" provides a beautiful system of spies to prevent and detect several offences including offences related to robbery, assault, burglary, theft etc. It also provides instructions to traders and general public regarding Stolen Articles. For example, a trader shall not handle or buy any article unless he is sure that the seller has the right over it. The buying of the stolen goods knowingly has been made punishable. Although it is also prescribed that the person possessing stolen property will be given an opportunity to give explanation and if it is found that the property has been acquired by him lawfully, he shall be acquitted.

In case of Robbery/Burglary, the treatise provides the guide to the investigators for detection of the offence. The investigator shall look for

the passage other than doors, uprooting of windows, holes made therein, broken windows, entry through roof, tunneling, marks on wall of climbing or descending etc. to ascertain the entry and exit of the thief. If the items, remnants and tools left behind point to the cutting or breaking from inside or only if the insider could provide the knowledge of the stolen goods, then the burglary should be deduced to be an internal one otherwise external. If the evidence supports both, it should be presumed as joint i.e. someone inside abetting the one outside.

In case of internal burglary, the following shall be interrogated:

" *a close relative who is addicted to vice, known to associate with ruthless people or is found to have the tools for burglary;*

- a servant with similar characteristics;

- a woman from a poor family or one with a lover outside;

- anyone who shows signs of: sleeping too much or too little; agitation; a dry and pale face; an indistinct or changed voice; restlessness; overtalkativeness; stiffness of body due to climbing; body or clothes cut, scratched or torn; hands and feet scratched or bruised; torn hair, broken nails or both full of dust; having just bathed and anointed oneself; having freshly washed hands and feet; having foot prints similar to those found in the dust or mud [near the scene of the crime]; having garlands, wine, perfumery, clothing, unguents, or perspiration similar to those found at the entrance or exit."

In modern day investigation of property offences also, the investigators follow the principle of securing the scene of crime with utmost priority. Thereafter the detailed scrutiny is made from all angles to ascertain whether the involvement of an insider is there or not. It is evident from above that the general principle of observation and scrutiny of Scene of Crime as is taught to the modern day investigators were equally valid in ancient times also. The common sense approach to Investigation has its

roots in the history. Although with advancement of technology, the new techniques like lifting of chance prints, matching with fingerprint database etc. has strengthened the hands of police investigation, yet the basic principles of investigation remains the same.

PART - II

Arrest of Suspects

In *Arthashastra* the provisions for the arrest of persons on suspicion has been provided in detail in Chapter VI of Book 4 under title SEIZURE OF CRIMINALS ON SUSPICION OR IN THE VERY ACT.

It provides that following persons can be arrested on suspicion:

"*Persons whose family subsists on slender means of inheritance;*
who have little or no comfort;
who frequently change their residence, caste and the names, not only of themselves, but also of their family (gotra);
who conceal their own avocations and calls;
who have betaken themselves to such luxurious modes of life as eating flesh and condiments, drinking liquor, wearing scents, garlands, fine dress, and jewels;
who have been squandering away their money;
who constantly move with profligate women, gamblers, or vintners;
who frequently leave their residence;
whose commercial transaction, journey, or destination is difficult to understand;
who travel alone in such solitary places as forests and mountainous tracts;
who hold secret meetings in lonely places near to, or far from, their residence;
who hurry on to get their fresh wounds or boils cured;
who always hide themselves in the interior of their houses;
who are excessively attached to women;

who are always inquisitive to gather information as to the women and property of others;

who associate themselves with men of condemnable learning and work;

who loiter in the dark behind walls or under shades;

who purchase rare or suspicious articles in suspicious times or places;

who are known for their inimical dealings;

whose caste and avocation are very low;

who keep false appearances or put on different caste signs;

who change their ancestral customs under false excuses;

whose notoriety is already marked;

who, though in charge of villages, are terribly afraid of appearing before the prime minister and conceal themselves or go elsewhere;

who pant in fear while sitting alone;

who show undue agitation or palpitation of heart;

whose face is pale and dry while the voice is indistinct and stammering;

who always move in company with armed men; or who keep threatening appearance;

these and other persons may be suspected to be either murderers or robbers or offenders guilty of misappropriation of treasure-trove or deposits or to be any other kind of knaves subsisting by foul means secretly employed."

However subsequent chapters also prescribe a condition that no one shall be arrested for a crime committed more than three days after the commission of crime unless there is a strong evidence to prove the charge.

These provisions of arrest resembles the provisions of Section 41 Cr.PC which empowers a police officer to arrest any person who is suspected to be involved in commission of a cognizable offence or who is a proclaimed offender or receiver of stolen property etc. The marked difference is that the *Arthashastra* specifies the characteristics of persons who can commit offences. Thus it defines a class of persons capable of committing offences whereas in modern day policing such classification is against the principles of democracy and equality before law. Although traditionally

police officers used to classify persons belonging to certain criminal tribes as suspects based on their modus operandii but over a period of time, the practice has been shelved off the law books.

Torture of Suspects

Book 4 Chapter VIII is titled as TRIAL AND TORTURE TO ELICIT CONFESSION.

It provides that the suspects can be tortured to elicit confession of crime from them. As a matter of principle, following persons shall not be tortured:

- *Those suspected of minor offences*
- *Minors*
- *The aged*
- *The sick*
- *The debilitated*
- *Those in a drunken state*
- *The insane*
- *Those suffering from hunger, thirst or fatigue after a long journey*
- *Those who have eaten too much*
- *Those who have already confessed*
- *A pregnant woman or any woman within one month of a childbirth*
- *Brahmins learned in Vedas*
- *Ascetics*

It also provides 18 methods of torture: four for ordinary offences and 14 for serious offences. Ordinary ones include strokes with the stick, lashes with a whip, suspending by the arms, the water tube whereas the torture for serious offences includes, apart from ordinary ones, tying the leg to head, tying hand and foot at the back, hanging by arms, hanging by feet, pricking with a needle under the finger nails, burning joints of fingers etc.

It is also mentioned that those suspects against whom torture is prohibited, the truth shall be ascertained by keeping a secret surveillance on them through people of similar occupations, story tellers, cooked food sellers etc. Also methods of secret operations by the trained spies can be performed to find out the truth.

This aspect of investigation has been totally rejected by the modern criminal investigation methods. Although the cases of custodial violence are still reported but law does not permit it. Several police officers have landed into trouble for using excessive force during interrogation of suspects. Moreover the rising conscience of society towards Human Rights strictly prohibits any such method of torture. The advent of scientific techniques like Polygraph Test, Narco Analysis and Brain mapping can be used to elicit truth from the suspects but there is no evidentiary value of any confession before a police officer as per Section 25 of Indian Evidence Act. Moreover, such methods of torture were also against the concept of equality as certain classes and casted were exempted from them.

As discussed above, the *Arthashastra* covers the basic aspects of investigation and can act as a guide to the investigating officers. It establishes that the police administration in ancient India was based on rational principles and not on the whims and fancies of the rulers. The instructions provide in Book 3 and Book 4 were equivalent to Criminal Codes for the investigating officers. A few of the archaic methods like torture and arrest based on the characteristics of individual are not valid in modern times but in totality the Criminal Investigation in *Arthashastra* exhibits the richness in the thought process of Ancient Indian rulers qua the justice delivery system based on rational principles.

References

Rangarajan L. (1992). Kautilya – The Arthashastra, Penguin Books, Dev
        Publishers & Distributors, https://ncjindalps.com/pdf/
        HUMANITIES/The%20Kautilya%20Arthashastra%20-
        %20Chanakya.pdf)

Shamasastry R. (1915). Kautaliya's Arthashastra (English Translation)

Impact of Climatic Changes on Fruit Growers of Himachal Pradesh: An Evaluation of the Spatial Diffusion Mechanisms

NAVNEET KAUR

Abstract

Nature has bestowed Himachal Pradesh, the hill state with a wide range of agro-climatic conditions which are suitable for the cultivation of temperate and sub tropical fruits. Apple has held supremacy among the fruits of Himachal Pradesh since it's inception. There are several changes in the physiography, climate, soils, technology, population and infrastructure which influence the cultivation of fruits in the State Among all these factors the role of climate has always been dominant .

This paper is an attempt to understand the spatial diffusion of orchards in Himachal Pradesh from 1995-2019 and highlight the factors responsible. The paper has been divided into two sections. Section I deals with diffusion of Temperate fruits (other than Apple) and section II is devoted to Subtropical fruits.

Key words: Diffusion, orchard, Himachal Pradesh, fruits, cultivators, physiographic, agro-climate.

INTRODUCTION

Himachal Pradesh has shown shifting of land use patterns that changed from agriculture to fruit crops in the past few decades. The area under fruit crops which was 792 hectares in 1950-51 with total production of 1200 tonnes increased to 226799 hectares during 2015-16. The total fruit production in 2015-16 was 92889 (M.T). It was then projected that an area of 4000 hectares would be brought under fruit plants however, this plan was overachieved and 4328 hectares of area actually came under fruit plantation(The Times of India, 2017). Apple, the most important fruit crop of Himachal Pradeshconstitutes 48 percent of the total fruit crop and about 87 percent of the total fruit production. Area under apple increased from 400 hectares in 1950-51 to 110679 hectares in 2015-16. The total apple production was 777126 M.T in 2015-16 (Devi and Kaur, 2019).

With an average output of roughly 2316 metric tonnes, India ranks fifth in the global apple production rankings, after the US, Turkey, and Poland (FAO, 2019). The global fruit output has grown consistently from 29.40 metric tonnes in 2010 to 33.63 million metric tonnesfrom2010 to 2017. Between the decades of 1991-92 and 2018-19, India's apple farmland increased by 58%, from a total of 1.95 lakh hectares to 3.08 lakh hectares (Economic Survey, 2020). Most of India's apples come from three states namely Himachal Pradesh, Jammu and Kashmir and Uttarakhand. Apples are the fourth most significant fruit crop in India, after mango, citrus, and banana.

Table 1

Total Production of Different Fruit in Himachal Pradesh (In Million Tonnes)

Item	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Apple	892112	275036	412395	738723	625199	777126
Temp. fruits	61381	31181	55021	66130	43613	29571
Nuts & dry fruit	3620	2493	2810	3482	2413	1842
Citrus fruits	2868	2503	2432	2227	2217	7331
Other tropical	42031	39082	61162	35732	58552	25321
Total	1027821	372823	555708	866344	751938	928829

Source: Economic Survey of Himachal Pradesh

Table 1 shows the total production of apple fruit in Himachal Pradesh which has been observed to increase from 892112 (MT) in 2010-11 to 777126 (MT) in 2015-16. During the decades of 2011-12 and 2014-15 the apple production had declined due to heavy rains, hail storms in apple production. Despite these changes the apple production of Himachal Pradesh is growing rapidly. The impact of the climate change has jeopardized the dwindling apple production as also the market fluctuation during the last few years. These changes attracted the attention of the government (Government of Himachal Pradesh—Economic Survey 2021).

This paper explores the vast horticulture potential of the hill state through diversified horticulture production in varied agro-ecological zones. The production under temperate fruits other than apple has increased from 61381 (MT) in 2010-11 to 29571 (MT) in 2015-16. The Nuts and Dry fruits production has increased from 3620 (MT) during 2010-11 to 1842 (MT) in 2015-16. Citrus fruit and other sub-tropical fruits saw an increase from 2868 (MT) and 42031 (MT) respectively during 2010-11 to 7331 (MT) and 25321 (MT) respectively in 2015-16.
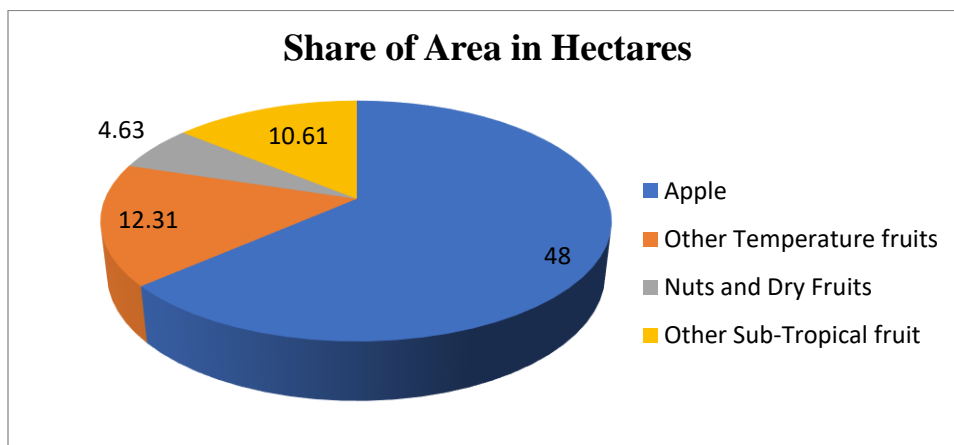
Figure 1: Percentage of Area under different Fruit crops in Himachal Pradesh 2015-16

Figure-1 shows the area under different fruit crops in Himachal Pradesh. The area under Apple fruit cultivation had increased from 97438 hectares in 2008-09 to 110679 hectares in 2015-16. The area for the cultivation of Nuts and dry fruits increased from 231 hectares in 1960-61 to 10491 hectares in 2015-16. The Citrus and other sub tropical fruits which were cultivated over 1,225 hectares and 623 hectares in 1960-61 respectively, increased to 24063 hectares and 53658 hectares in 2015-16, respectively. Thus, it was observed that the area under apple fruit cultivation has been continuously growing in the State of Himachal Pradesh at an average growth rate of 1.5 percent every year.

When speaking to farmers in Himachal Pradesh, the chief problem that surfaced was that they were all wanting to attain the status of farmers in the neighbouring States of Punjab and Haryana who were often seeking Minimum Support Price (MSP) for their crops of wheat and paddy as a statutory right. The author was informed of the joint forum of atleast 22 farmers' organisations in Himachal, called the Sanyukt Kisan Manch (SKM) which was protesting for this MSP throughout the State. Most farmers reported how they hit hard by the plummeting prices of apple is the past few years, especially after the lockdown period of the pandemic (2020). The SKM members informed that they had warned the state government of massive protests if it failed to take any effective decision to protect the interests of apple orchardists spread predominantly across 8 out of the total 12 districts and nearly 27 of the total 68 assembly segments (Sahu et al, 2020).

The SKM convenor and a progressive apple producer, Harish Chauhan had informed that members of the SKM were cutting across political lines for mobilising farmers in various districts. The objective was to bring them under one umbrella to fight for levy of fair prices especially when the production costs were steadily increasing over the years. He said, "Not only apple growers, and cultivators of other fruits we are also involving farmers growing tomatoes, potatoes, garlic, cauliflower and other crops to fight for the minimum support price (MSP) for their produce" he added that such a scheme had been implemented by the Kerala government for 16 vegetables.

Table 2

Total Area and Production of Fruits in Himachal Pradesh

Sr. No.	Area	Dimensions
1	Area under all fruits including apple (2021)	1,20,133
2	Production of all fruits including apple (2020)	1,27,453

(Department of Agriculture and Farmers Welfare, Government of India, 2020)

No doubt the mainstay of Himachal Pradesh's horticultural industry has bolstered the State's economy. Horticulture now covers 2.34 million hectares. The State has produced 31.40 lakh metric tonnes of fruits in the previous four years (considering the second phase in this research). Horticulture has generated an average yearly revenue of Rs. 4575 crore throughout this time period. There are an average of 9 lakh individuals engaged in this industry. Table 2 shows area and production of Himachal Pradesh. Thus, a fair idea is obtained about the trends of expansion occurring in Himachal Pradesh.

Objective of the Study

The major objective of the study is to analyse the spatial spread of orchards in Himachal Pradesh from 1995 -2019 and understand the changing scenario of fruit culture in the State at the advent of the 21st century.

Study Area

Himachal Pradesh lies in the Western Himalayas. It has an undulating topography ranging from 350 meters to 6975 meters. The terrain is undulating as one moves from the South to the North. The climatic variation ranges from mild to cold. The average rainfall is 160 cms per annum and the agro-climatic conditions of the State are ideal for cultivating fruit orchards. The geographical area covered by the State is 55673 sq. kms. It is administratively divided into 12 districts and 117 tehsils as well as sub tehsils (Census 2011). The population of Himachal is 6,864,602.

Database and Methodology

Interviews with local farmers were done in areas known for their apple orchards and other horticulturally diverse crops. The local dynamics of fruit production whether stone fruit or pomes, citrus fruits, mango or even dry fruits like almond and walnut as well as pecans in the area has been determined and understood from the perspective of the farmers'. The

orchardists' views on the seasonal output based on the changed climatic conditions form a major part of the findings of the study. Farmers holding orchards of stone fruits, nuts and dry fruits, citrus and mango were the sample for the study. Interviews were held using the snowball sampling method with more than 50 farmers from the State. Focus Group Discussions were held among fruit growers growing different types of fruits on the basis of an unstructured open-ended set of questions.

The focus of the present research work is the geographic distribution of Orchards in Himachal Pradesh and for this purpose the author has divided the time frame of 1994-95 to 2018-19 into two halves. These are: (i) 1995-2006 (ii) 2006-2019.

Primary and secondary data have been used for the research process. The secondary data was gathered from the Directorate of Horticulture, Shimla, the Statistical Abstract of Himachal Pradesh, the Department of Economics and Statistical Analysis, and the Department of Land Records, Himachal. Besides this a number of newspaper clippings and records were used. Primary data was collected with the help of in-depth interviews were conducted with more than 50 orchardists utilizing a questionnaire as the tool of investigation.

Results and Discussions

While apple has always been the staple fruit grown in Himachal Pradesh Stone fruits, Nuts and Dry fruits, Citrus and Mango have also carved a niche for themselves in various parts of the State. Interestingly, there are many districts in the state that are concentrating solely on growth of fruits other than apple.

Diffusion of Orchards (For Fruits Other than Apple)

The diffusion of Orchards other than Apple has been broadly categorized into two sections namely I and II.

Section I: Diffusion of Other Temperate Fruits

(I)   Prominent Temperate Fruits

(II)   Nuts and Dry Fruits

Section II: Diffusion of Subtropical Fruits

(I)   Citrus Fruits

(II)   Mango

The diffusion of orchards has been studied by dividing the study period into two phases.

Phase – I: 1995 -2006

Phase II : 2006-2019

A study of the spatial spread of orchards from 1950 to 1995 has already been published. There has been a noticeable increase in the area under orchards during the second phase justifying the need for studying the status of expansion of the orchards in the second phase (Kaur, 2020).

Diffusion of Other Temperate Fruits

Apple is among the most important fruit grown in the Himachal and contributes remarkably to it's economy but the contribution of other temperate fruits like stone fruits as well as nuts and dry fruits is no less significant

Section I: Diffusion of Prominent Temperate Fruits in Himachal Pradesh

The prominent temperate fruits grown in Himachal Pradesh are Peach, Plum, Apricot and Pear (stone fruits) which are being grown for the past 50 plus years. The area occupied by these fruits was 2899.0 hectares in 1995 which increased to 17537 hectares in 2019 (Table 3). These fruits are grown dominantly in Kullu, Mandi, Sirmaur and partially in Shimla. Plum cultivation dominates this category both in terms of land area under coverage as well as production (Kaur, N, 2019).

Table 3

Area under Different Fruits in Himachal Pradesh (1995-2019)

Fruits	1994-95	2005-06	2018-19
Apple	39382.3	46474.0	112807
Other Temperate Fruits	2899.0	2805.0	17537
Nuts and Dry Fruits	933.0	1224.3	10,252.6
Citrus Fruits	1446.7	1637.7	24722.3
Mango	2038.7	3587	42075.3
Other Sub-Tropical fruits	3006.0	8141.0	12925

Source: Statistical Abstract, Himachal Pradesh, 1994-95, 2004-05, 2019-20

A range of dry fruits like almonds, walnuts and pecans are growing under the category of nuts and dry fruits in an area spread over 10,256.2 hectares. This area grew by ten times during the study period from only 933.0 hectares in 1995.The production was 39070.0 tonnes in 2006.As most of these dry fruits thrive in low temperatures the cold winters of Himachal Pradesh and low to medium heat during the highest summer temperatures are ideal for them. Well-drained heavy to light sandy and silt loam soils are required for cultivating these fruit trees. The rainfall requirement for the dry fruits and nuts is 60 to 70 cms and for stone fruits it is as high as 100 to 150 cms.

The variations in the soil and climatic conditions along with several other factors also exert an impact on the different fruits (Jamwal, N., 2021). Varying levels of diffusion have been recorded in the State during the study period. The phased adoption of these diffusion parameters are discussed in detail:

(I)   First Phase of Diffusion of Prominent Temperate Fruits (1995-2006)

Peach, is a stone fruit grown among other prominent temperate fruits of Himachal Pradesh and is second in production after plum. It dominates the Rajgarh Valley of District Sirmaur (Sharma, 2015). The July Elberta variety of peach thrives best in the climatic and soil conditions prevalent in Sirmaur district. The cultivation of peach started in 1951 at Gaura from where it spread to other suitable areas of the State (Kala, 2007). Besides peach, other fruits like plum, apricot and pear also fall in the category of Other Temperate Fruits and occupy the tehsils of Sirmaur, Solan and Mandi from where they were observed to spread to other parts of the State. Apricot in its dried form (Khurmanicolloguially) is found in the Chini area of Kangra district and Plum was first cultivated in Kandaghat (Solan) in1951.

The prominent temperate fruits had covered an area of 2899.0 hectares in 1995 but this slightly reduced to 2805.0 hectares in 2006. These fruits consolidated their position in the State and came out stronger in the second phase. About 6 percent of the total area has been occupied by these fruit orchards in the State.

Government support towards this effort has been extended in the form of distribution of good quality saplings on subsidized rates by the Directorate of Horticulture, Shimla. The provision of adequate transport facilities has also probably led to the consolidation and progress of these orchards.

(II)   The Second Phase of Diffusion (2006-2019)

During the second phase peach along with other Prominent Temperate fruits had consolidated their places in the areas of their cultivation. The diffusion of these fruits was, however, observed to occur in the newer areas. A few of the traditional areas exhibited a total shift from these

fruits. This probably could be attributed largely to the change in the inherent climate conditions of these areas. Some of the fruits like strawberry, kiwi and cherry were cultivated for commercial purpose and are being considered as the new entrants in this category. Although they are occupying lesser area comparatively. The area under Prominent Temperate fruits has increased manifold from 2805.0 hectares in 2006 to 17,537 hectares in a time span of 13 years (Table 3).

The main reason for the shift from apple to other fruits has taken place in these areas due to the wide rangingchanges in the climate. Sirmaur district is a dominant area for Peach cultivation.The tehsils of Rajgarh, Renukaji, Nahan and Pachhad, falling under Sirmaur district are growing peach crops and contributing to the main pool of fruits. Plum, another temperate fruit of importance covers a larger area of the Mandi and Kullu Districts. Apricot mainly dominates District Solan while pear finds place in Mandi and Shimla districts of the State as depicted in Table 4.

Table 4

Cultivation of Temperate Fruits in Himachal Pradesh

Sr. No	Fruit	Cultivated in
1	Peach	Sirmaur, Rajgarh, Renukaji, Nahan and Pachhad
2	Plums	Mandi and Kullu
3	Apricot	Solan
4	Pear	Mandi and Shimla

Source: Compiled by Author

Facilitation Processes for Fruit Growers in Himachal Pradesh

The development of transport, metalled roads, refrigeration facilities, 8 fruit canning units in all and two in the Rajgarh tehsil, nurseries and

progeny-cum-demonstration orchards along with Pesticides Sale Centres have continued to provide steady support to the diffusion process of the main Temperate fruits in the State in general and in these districts in particular. The decreased distance from a motorable road was a very significant and positive factor.

Cultivation of Nuts and Dry Fruits

Dry fruits like almond, walnuts and picans fall in the category of Nuts and Dry Fruits that are grown in Himachal Pradesh. These are grown at attitudes ranging between 700 meters to 2100 meters. The ideal conditions for cultivating these fruits prevail in district Chamba, Sirmaur, Mandi, and partially in the Kinnaur, Kangra and Kullu valleys of Himachal Pradesh (Table 5).

Table 5

Cultivation of Dry Fruits in Himachal Pradesh

Sr. No.	Dry Fruits	Areas Grown
1	Almonds	Lahaul & Spiti along with Chini in Kinnaur
2	Walnuts	Chamba, Mandi and Sirmaur.
3	Pecan nuts	Kangra, Mandi, and Kullu

Source: Compiled by Author

Almonds are grown popularly in this category. They thrive best in the deep, fertile and well drained soil. Earlier this fruit showed prominence in Lahul tehsil of district Lahaul & Spiti along with Chini in Kinnaur where almonds are grown extensively (Saj, 2019).

Walnuts are grown mainly in the well drained silt loams of the hills that have a rainfall varying between 65 to 70 cms. These dry fruits are presently dominating the fruit economy scenario in the districts of Chamba, Mandi and Sirmaur.

Pecan nut cultivation has remained confined to the areas of Kangra, Mandi, and some parts of Kullu district. These fruit trees require deep, loose, well drained and well aerated soils to grow.

Thus, the situational analysis shows that in Himachal Pradesh the whole nuts and dry fruits category covered an area of 933.0 hectares in 1995 but it increased to 10,252.6 hectares in 2019 recording an increase of about 10 times.

During the First Phase of Diffusion (1995-2006) the cultivation of Nuts and Dry Fruits had been confined solely to their areas of origin. They covered a total area of 1224.3 hecatres during this phase. The reason for their emergence as a cash crop in these region was because of the conducive terrain of Himachal Pradesh. Its favourable soil and climatic conditions acted as the positive driving force for the diffusion of these fruits. Further, the well laid out motorable roads acted as a boon for the growers of these regions and helped in spread of these orchards along the roads in their respective tehsils. The Walnut Development station which had been set up in 1972 in Nohra has provided support and help to the dry fruits and nut growers in the later time period as well. Similarly, the Regional Research Station which had been set up in Sharbo in the 1950's for carrying out research in dry fruits has proven to be beneficial to the surrounding areas as well.

In the Second Phase of Diffusion (2006-2019) the cultivation of Nuts and Dry Fruits further consolidated its position. The cultivation diffused to newer areas increasing the total coverage considerably.

From this phase onwards it is the almond fruit which has dominated the Mandi and Shimla districts. It covers 48 percent of the total area covered by Nuts and Dry Fruits. The walnut cultivation spread to a larger part of Chamba, Mandi and Sirmaur districts and covered around 43 percent of the total area hence little less than the average area coverage by almond currently. The third important dry fruit i.e. the Pecan nut is mostly being

cultivated in Mandi and Kangra districts. It occupies the remaining 9 percent of the area under orchards (Kaur N, 2019).

The Progeny-cum-Demonstration Orchards, Private Registered nurseries, Fruit Plant Nutrition Laboratories, Pesticide sale centres along with development of roads and other suitable physical conditions have given the required impetus to the diffusion processes of these orchards in Himachal Pradesh.

Diffusion of Subtropical Fruits

Once considered the apple hub and some dry fruit varieties, Himachal Pradesh has taken up the cultivation of other fruits as well. The cultivation of the Sub-tropical fruits includes mango, litchi, guava, loquat, citrus fig, ber, papaya, grapes, jack fruit, banana. Among these the citrus and mango varieties are important in the context of areal coverage and production. These have been discussed in detail. These sub-tropical fruits occupy the low hills and valley areas of the State. They were initially cultivated in Sirmaur and Solan districts from where they spread to other parts of the State. However, in the 1990's mango took over and gained more importance as it occupied a larger percentage of the area in the category of sub-tropical fruits.

Citrus Fruits

Citrus fruits occupy a large part of the area under Sub-tropical fruits in Himachal Pradesh. The diffusion of Citrus began in 1960 with the setting up of a Sub-tropical Fruit Research Station at Dhaula Kuan in district Sirmaur. The temperature suitable for Citrus is between 30^0C to 40^0C with the annual rainfall ranging between 75 cms to 250 cms. Sandy or gravely soil is suitable for growing these fruit trees.

First Phase of Diffusion of Citrus (1995-2006)

Citrus fruit covered an area of 1446.7 hectare in 1995. This increased to 1637.7 hectares over 11 years by 2006 (Table 3). The citrus fruits mainly include oranges Lime, Malta, Galgal, Kaffir Lime etc. These fruits occupy

the lower areas of the State such as Nurpur, Dehra, Palampur, Fatehpur tehsils of Kangra district and Nalagarh in Solan.

The factors that have favoured the diffusion of Citrus fruits in these areas are the development of roads, Progeny-cum-Demonstration Orchards, Private Registered nurseries along with suitable weather conditions that are prevailing in those particular parts of the State. Observations and discussions with a variety of Orchardists showed that around half the orchards in this region were located at a distance of 5 kms from a motorable road. This helped the growers in transferring the perishable fruits to the market with speed and efficiency. These positive factors collectively contributed to the cultivation of citrus fruits in the region.

During the Second Phase (2006-2019) the cultivation of citrus fruits increased in average to around 24,722.3 hectares in a time span of about 13 years (Table 3). There was a reasonable increase of around 17 percent in the area. The factors responsible for the spatial diffusion during the first phase played a positive role in the diffusion of citrus fruits during this phase as well. These fruits presently occupy around 31 percent of the total area covered by sub-tropical fruits. Among these, orange occupies greater area of coverage in the districts Kangra and Solan, while the fruit malta is found in Kangra, Hamirpur and Una. The Kaffir lime also dominates the scene in Kangra, Mandi and Sirmaur. Galgal, the large lime is the least important Citrus fruit grown here and is mostly consumed in the local market itself or by the growers themselves.

The Citrus fruits presently occupy only 4 percent of the total area cultivated for citrus fruitsin the State. They are mainly confined to some of the districts in the valley and the lower hill regions. The lower percentage of acreage under cultivation can be attributed to the fact that these fruits face tough competition from mango. They contribute marginally to the State economy as a whole.

Cultivation of Mango

Mango occupies a special status among the fruits in India. It is known as the king of fruits. It is considered very lucrative as compared to other sub-tropical fruits. In Himachal Pradesh the area coverage among the Sub-tropical fruits is 52.7 percent area of the total area covered under such fruits. This total area coverage is comparatively marginal when examined in the context of other fruits grown in the State.

In the First Phase, (1995-2006) mango was observed to mainly occupy the lower districts of the State such as Bilaspur, Kangra, Hamirpur, Una which mostly comprise the western districts. Parts of Mandi, Solan, Chamba and Sirmaur also grow Mangoes. There was a gradual increase in area from 2038.7 hectares in 1995 to 3587.0 hectares in 2006 (Table 3). This increase has been because of the farmers shifting from the traditional crops cultivation to mango cultivation. The farmers in the lower parts of Himachal are currently planting new orchards on a large scale. The government support to these farmers is in the form of various schemes for growers especially for the Scheduled Castes and Scheduled Tribes and those dwelling in Backward Areas. These factors have played a positive role in the augmentation of Mango areas. Besides, many of the horticulture extension schemes as well as establishment of new nurseries have helped in the diffusion of this fruit.

Second Phase of Diffusion (2006-2019) Presently the Mango fruit crop covers a vast area in the Kangra district followed by the districts of Mandi, Bilaspur and Hamirpur where the fruit is cultivated moderately. In other districts like Sirmaur and Una this fruit grows only marginally. However a part from Kinnaur and Lahaul-Spiti all other districts of Himachal are growing mango. Presently mango occupies 42075.3 hectares area (Table 3) in the State of which Kangra District alone accounts for more than half (51 percent),followed by Mandi (12 percent), Bilaspur (10 percent)and Una (5 percent) .Another important fact is that the mango orchards have

diffused to many new tehsils of District Mandi after consolidating their position in Kangra.

The Progeny-cum-Demonstration orchards and nurseries established at Kangra, Una, Bilaspur and Solan have been dealing with the provision of saplings of sub-tropical fruits, especially mango and citrus varieties. The Agro-Industrial Corporation alongwith the Department of Horticulture has initiated the horticulture operations for mango in Kangra and Una, thus, supporting the diffusion process of mango ochards in these areas.

Usually warm weather conditions in the hill State of Himachal Pradesh during the second half of March, 2022 left apple growers and horticulture experts anxious, as they are concerned about the prevailing higher temperatures during this time of the season of the year as against the previous years. These conditions also led to more concentration of fruits other than Apple in the State.

Horticulture experts and growers shared with the researcher that incase the temperature does not drops and the dry weather conditions continue to prevail the apple crop could be adversely affected in terms of yield and production. The new plantation of apple in the orchards is quite susceptible to the warm climatic conditions and can result in damage. Maximum and minimum temperatures have been hovering appreciably above the normal range in most parts of the State and any respite seems unlikely. Under these circumstances the fruits other than Apple shall be more obviously visible on the fruit scenario of the State.

Conclusion

The stone fruits, the temperate fruits (other than apple) such as peach, citrus and mango as well as nuts and dry fruits, etc. have spread across Himachal Pradesh in the past few decades. The nuts and dry fruits have come to occupy an important place in the fruit economy of Himachal Pradesh. Their proportion has increased by more than 5 times over the past three decades. The fruits cover a small proportion of the area in western

and southern Himachal Pradesh, strengthening the fruits strong hold in the eastern parts of the hill state. The sub-tropical fruits comprised of mango, citrus, litchi, loquat etc. are thriving no doubt but it is the citrus and mango which have been dominating the category. Citrus has diffused very slowly in the State and that too mostly in the western parts.

Mango is an important sub-tropical fruit spread over most of the western and South-western parts of Himachal Pradesh, (Map 2). The diffusion process is continuing steadily. Thus, the process of diffusion of all kinds of fruits has provided manifestation to the dynamic plans and policies of the government. The government is making a number of efforts to sustain this changed scenario of the agri-horticultural potential of Himachal Pradesh in the first part of the 21st Century and beyond. However, climate changes are poised to accelerate the diffusion process further.

References

Basannagari, B., & Kala, C. P. (2013). Climate change and apple farming in Indian Himalayas: a study of local perceptions and responses. *Plos one*, *8*(10), e77976.

Bhat, M. S., Lone, F. A., & Rather, J. A. (2021). Evaluation of long term trends in apple cultivation and its productivity in Jammu and Kashmir from 1975 to 2015. *GeoJournal*, *86*(3), 1193-1202.

Cesaraccio, C., Spano, D., Snyder, R. L., &Duce, P. (2004). Chilling and forcing model to predict bud-burst of crop and forest species. *Agricultural and Forest Meteorology*, *126*(1-2), 1-13.

Chadha, K. L. (2001). Handbook of horticulture. *Handbook of horticulture.*

Chaudhary, P., &Bawa, K. S. (2011). Local perceptions of climate change validated by scientific evidence in the Himalayas. *Biology Letters*, *7*(5), 767-770.

Devi,S. &Kaur, N. (2019). Changes in the Patterns of Crop Diversification in Himachal Pradesh:1971-2011. *Indian Journal of Hill Farming, 32* (2), 329-334.

Food and Agriculture Organization. (2019).*FAOSTAT Statistical Database of the United Nation Food and Agriculture Organization* Statistical Division. Rome.https://www.fao.org/faostat/en/

GoHP. (2019). *Government of Himachal Pradesh—Economic Survey 2020–2021*; Economic and Statistics Department, Himachal Pradesh, India: https://himachalservices.nic.in/economics/en-IN/economic-survey.html

Gupta, H., Kaur, L., Asra, M., Avtar, R., & Reddy, C. S. (2021). MODIS NDVI Multi-Temporal Analysis Confirms Farmer Perceptions on Seasonality Variations Affecting Apple Orchards in Kinnaur, Himachal Pradesh. *Agriculture*, *11*(8), 724.

Gupta, V. (2020).*Covid-19 hits 160-year-old Himachal apple industry.*https://101reporters.com/article/businesssociety/Covid19_hits_160yearold_Himachal_apple_industry

Jamwal, N. (2021).*Climate Change Hits Himachal's Famous Apples, Causes the of Frequent Floods.* Available online: https://en.gaonconnection.com/climate-change-hits-himachals-famous-apples-causes-the-of-frequent-floods/ (accessed on 30 January 2021).

Kala, C. P. (2007). Local preferences of ethnobotanical species in the Indian Himalaya: Implications for environmental conservation. *Current science*, 1828-1834.

Kaur, N. (2002). *Spatial diffusion of orchards in Himachal Pradesh* (Ph. D. thesis, Department of Geography, Panjab University, Chandigarh).

Kaur, N. (2019). Early Spatial Diffusion of Orchards in Himachal Pradesh; India (1950-1995).

Kaur,N. and Kaur, D.(2006). Diffusion of Appl Orchards in Himachal Pradesh: A Geographical Analysis. *The DeccanGeographers,44*(1), 29-42.

Negi, C.M. (2020). Dynamics of Apple Production in Himachal Pradesh. *Agric. Situat. India, 77,* 20–30.

Rana, R. S., Bhagat, R. M., & Kalia, V. (2011). Impact of climate change on apple crop in Himachal Pradesh. *Journal of Agrometeorology*, *13*(2), 97-103.

Rana, R. S., Bhagat, R. M., Singh, M. M., Kalia, V., Singh, S., & Prasad, R. (2012). Trends in climate variability over Himachal Pradesh. *Journal of Agrometeorology*, *14*(1), 35-40.

Sahu, N., Saini, A., Behera, S. K., Sayama, T., Sahu, L., Nguyen, V. T. V., & Takara, K. (2020). Why apple orchards are shifting to the higher altitudes of the Himalayas?. *PLoS One*, *15*(7), e0235041.

Saj. (2019). *Almond Farming Guide & Cultivation {Production} Information.* https://www.farmnewsindia.in/2019/11/29/almond-farming-guide-cultivation-production-information/

Sen, V., Rana, R. S., & Chauhan, R. C. (2015). Impact of climate variability on apple production and diversity in Kullu valley, Himachal Pradesh. *Indian Journal of Horticulture*, *72*(1), 14-20.

Sharma, R., Dev, K., Pathania, A., & Sharma, S. (2021). An Economic Analysis of Apple Cultivation in High Hills of Himachal Pradesh. *Economic Affairs*, *66*(2), 265-270.

Sharma, S.C. (2015). *A drive into the heart of Sirmour district, the --peach bowl-- of Himachal*.https://www.outlookindia.com/ outlooktravelle r/explore/story/47023/himachal-pradesh-peaches-in-fagu.

Singh, I. &Kaur, N. (2017). Horticulture Growth in Himachal Pradesh (1974-2006).*Quest International Multidisciplinary Research Journal ,6* (4),19-29.

Singh, I. J. (2014). Horticulture in himachalpradesh a spatio temporal analysis 1974 2006.

Singh, I.J. (2021).*Impact of Climate Change on the Apple Economy of Himachal Pradesh: A Case Study of Kotgarh Village.*Available

online: https://www.semanticscholar.org/paper/Impact-of-Climate-Change-on-the-Apple-Economy-of-A-Singh/02444c17f4cfc7e85c3eee0dee82b97093b4c02f (accessed on 5 February 2021).

Singh, J., & Patel, N. R. (2017). Assessment of agroclimatic suitability of apple orchards in Himachal Pradesh under changing climate. *Journal of Agrometeorology*, *19*(2), 110-113.

Singh,I. &Kaur, N. (2010). Horticulture in Himachal Pradesh and Hilly States, *The Deccan Geographers, 48* (2).

Singh-Rana, R., Bhagat, R. M., Kalia, V., Lal, H., & Dubash, N. K. (2009). Impact of climate change on shift of apple belt in himachalpradesh. *impact of climate change on agriculture. Panigrahy, S.; Ray, SS and Parihar, S. J.(eds.). Ahmedabad, India. Int. Soc. Photogramm. Remote Sens*, 131-137.

The Times of India (2017). *Land under fruit cultivation up in Himachal Pradesh.*http://timesofindia.indiatimes.com/articleshow/57613303.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Water Management: Towards Sustainable Solutions

ANJU SURI

MAMTA

Abstract

Water is an essential component in human life and a basic need for every household. Excessive exploitation of water is leading to its shortage thus depleting its resources. This paper aims to shed light on sustainable water management solutions and techniques in order to unravel the water crisis. A descriptive, exploratory, theoretical and analytical research methodology has been applied in the present paper to examine problems and opportunities of and suggest solutions towards sustainable water management system. The primary and secondary sources used in the paper have been collected from the official government sites, such as the Ministry of Jal Shakti, the Department of Water Resources, and UNDP, books, latest publications and research articles published in several national and international journals. Expounding on importance of water resource, the paper points out various factors responsible for the water woes and various challenges in implementation of a sustainable water management plan. The significance of integrated knowledge system of sciences and social sciences has been emphasised for achieving sustainable development goal of water conservation. Water harvesting techniques, such as chal khal system of Garhwal region, ahar-pyne system of Bihar, the taankas of Rajasthan, the talabs of Bundelkhand, the eris of Tamil Nadu and bamboo drip irrigation system of the North-East India have been described as traditional methods which are working well even today. Case studies of Sukhomajri Village in Haryana near Chandigarh, Ralegan Siddhi Village in Maharashtra, Jhabua district in Madhya Pradesh and revival of Arvari River in Rajasthan, have been discussed to show their importance as successful existing techniques of eco-restoration towards effective water management system, supported by various government, non-government organisations, community and individuals. A

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number of suggestions have been presented in the paper towards sustainable solutions for water management in contemporary times including reuse and recycling of wastewater, rain water harvesting, construction of check dams, revival of the johad culture and rejuvenation of the lost rivers.

Key Words: Water, water deficit, water management, sustainable solutions, rainwater harvesting, check dams, rejuvenation of rivers, water conservation, eco-restoration.

Introduction - Understanding the Water Woes of India

Water, the matter and matrix of human life, is the veritable viability of a biomass-based economy of the world and India is no exception. With the dawn of the twenty-first century, when water deficit has entered into a global crisis it has become a life-threatening disastrous problem in India. Owing to this, the means of sustenance of millions of people has been seriously compromised. Nearly sixty per cent of our nation's districts have issues with groundwater supply, quality, or both. Irrigation activity, with canals and groundwater as its major sources, consumes eighty per cent of water usage (Shah, 2013). The needs of a fast-industrialising economy and an urbanising population arise at a time when the ability to enhance water supply is inadequate, water tables are falling, and water quality issues are rising. It has been observed that over the last three decades, the importance of canal irrigation has profoundly reduced in comparison to irrigation with groundwater, particularly drawn by tube wells. Groundwater has contributed around 84% of the overall growth to the net irrigated land during the previous four decades. India is by far one of the world's largest and fastest-growing groundwater user. With an estimated thirty million groundwater structures in use, India is facing catastrophic problems of groundwater over-extraction. However, the real cause of worry is that both canal and groundwater sources are rapidly approaching their limits and are at the threshold of exhaustion.

Objectives of the Study

The present paper has been written with following objectives:

1) To capture attention and concern to the importance of water resource in view of the existing water woes
2) To explore need and challenges in the way of productive water management programme
3) To examine traditional and existing water management planning
4) To suggest measures and strategies for effective water management system towards sustainable solutions

Water Resource – A National Concern

Water, the first and foremost state subject under the Indian Constitution, is assuming significance of the prime national concern in light of:

a) the right to water as a component of the fundamental right to life,
b) the onset of a water crisis,
c) the resulting inter-use and inter-state disputes as well as the necessity for a national unanimity on water-sharing ideals and frameworks for minimising and rapidly resolving problems,
d) the threat posed by the massive waste output from various water uses, as well as the significant pollution and contamination that it causes,
e) the long-term environmental, ecological, and social implications of measures to enhance water availability for human usage,
f) the equity connotations of water distribution, use, and control among usage, consumers, areas, sectors, states, countries, and generations,
g) the regional and global dimensions of some of India's rivers, and
h) the developing concerns about impact of climate change on water and the need for reasonable responses at local, regional, national, and international levels.

Need for Sustainable Water Management System

There is no doubt that to meet adequately water requirements of people and facilitate large-scale irrigation systems, a substantive and significant amount of expenditure is being made in India towards recovery of groundward resources and rejuvenation of lost rivers, the fact remains that such systems so far have enabled to maintain urban water supply chain, seldom reaching to the impoverished rural communities. Large-scale water development schemes are frequently resulting in unsustainable and unequal water resource allocation, as well as forceful evacuation of the poor from their lands of habitat. The need of the hour is to build a system through sustainable management of water resources thus leading to more efficient, egalitarian and ecologically sounder society. Significant institutional, regulatory, and technical measures need to be pursued for its operationalisation. The central and state governments may mitigate the water woes by envisaging various plans, devising new techniques, introducing and implementing legislation. Truly if a national law is needed on issues like environment, forests, wildlife, biological diversity, and so on, a national law on water is needed as much. Water is as essential as (if not more) those issues. Water is among 17 Sustainable Development Goals established by the United Nations General Assembly in 2015, with the official wording: "Ensure the availability and sustainable management of water and sanitation for all." The Goal 6 of the 17 Sustainable Development Goals (SDG 6) discusses about "clean water and sanitation for all."

Challenges of Productive Water Management Programme

Though it is being undeniably and undisputedly held that productive water management programme is the must to achieve sustainable development goal for water, the path to the successful achievement of the goal is fraught with challenges as follows:

a) Socio-Ecological Complexity of Water Management

Socio-ecological complexity of water management in our country exists due to a wide variation in the mean annual rainfall which is as low as 100 mm in Jaisalmer, western Rajasthan, and as high as 11,700 mm in Chirapunji, Meghalaya. The country's river systems represent a wide range from one of the most complex and the mightiest river systems of the world, the Brahmaputra to a several hundreds of marginalized ephemeral streams experiencing flows for not more than a few hours in the whole year (streams like the Sambhar in western Rajasthan). The groundwater resources of our nation range from the richest Gangetic alluvium to some of the lowest-yielding hard-rock aquifers in the plateau. Its annual agricultural groundwater withdrawals range from 1280 m3/per capita in water-scarce Punjab to barely 130 m3/per capita in water-rich Bihar (Kumar M. D., 2018). Human habitations in our country extend from the mountainous sub-Himalayan region to the coastal plains owing which India's farming systems represent a contrast ranging from one of the most productive to the most impoverished ones of the world. Population density in its urban areas ranges from 30,000 people per square kilometre in Mumbai and Kolkata to 500 people per square kilometre in one of its smaller cities (Kumar M. D., 2018). All these factors complicate water management decisions not only for the country as a whole, but also for states and, in certain cases, communities as well.

b) Arguable India's Water Management Policy

Several arguments in the form of a discourse are put forward over India's water management policy often voicing dramatically opposite views and defining ideological perspectives on a number of basic issues such as:

a) who should own and govern natural resources, particularly water resources? (The nation, the state, or the local community).

b) who has the authority to administer and manage water resources? (Professionally managed centralised/state agencies, institutions of local self-government, or local communities).

c) what level should be opted for water management? (Village level, river basin level, sub-national level, or national level).

d) what type of technology should be applied to enhance water supplies? (Large water storage and water diversion systems or small water harvesting structures).

e) whether water should be considered a public or private concern?

f) how should water consumption be controlled? (Through top-down state regulations or through social regulation by local communities).

Role of Integrated Knowledge System for Constructive Water Management System

In light of a number of unsuccessful attempts in the past by scientists and engineers to provide solutions to the constructive water management planning, it has been realised that the knowledge contained in disciplines of science and engineering (hydrology, geohydrology, water engineering and technology), has to be integrated with knowledge from social sciences (economics, geography, sociology, history and law) and other disciplines. For the valuation of water and the design of economic instruments, institutions, laws, regulations, and policies, the interdisciplinary knowledge is required in the fields of water resource economics, water law, organisational behaviour, and so on. When this knowledge cluster is integrated with the technological system, an effective water management system may be evolved (Kumar, Bassi, Venkatachalam, & Sivamohan, 2012).

Importance of Traditional Water Harvesting Techniques

India is not unaccustomed to water harvesting and consolidated land-water management systems since its ancient past. Ancient literature, inscriptions, traditional practices, and archaeological relics all bear witness to the practice of water harvesting. There seems to be some evidence of complex

water harvesting technologies dating back to prehistoric times. Hindu texts like the Puranas, Mahabharata and Ramayana and various Vedic, Buddhist and Jain works contain several references to canals, tanks, embankments and wells (Pande, 1997). Recent evidence from Dholavira, a prominent site of the Indus Valley civilisation, dating back to the third millennium BC, provides indication of water harvesting.

The art and science of "collecting water where it falls," has been implemented as successful traditional method in several parts of India which also is in consolation with the thought that water harvesting is a necessary method of water management. Of various such important traditional techniques, mention may be made here of the *chal khal* system of Garhwal region, *ahar-pyne* system of Bihar, the *taankas* of Rajasthan, the *talabs* of Bundelkhand, the *eris* of Tamil Nadu and bamboo drip irrigation system of the North-East India.

Under the traditional chal khal system, commonly used in the Garhwal region, every accessible piece of land on the slopes surrounding a drain line was dug out to create little percolation pits with simple logic that the trenches improve percolation to stop soil and water erosion. As a result, the rainwater seeps into the earth, replenishes the water table, and eventually creates a river body. The method is not without the relevance today.

In the southern regions of Bihar, ahar-pyne, is the traditional irrigation technique, commonly used to manage water resources by employing canals and retention ponds. To respond to unpredictable weather conditions like the flooding or the drought, farmers here had devised this technique which involves digging of the channels called pynes into the ground to enable water to flow, and raising the high embankments on the sides. Small retention ponds called ahars are interspersed across the channel and are utilized to collect excess water. The system's structure has two functions: it retains water during droughts and drains water during

floods. The technique is indeed simple and useful at the same time (Koul, Singh, Neelam, & Shukla, 2012).

A taanka is a traditional rainwater harvesting technique used in Rajasthan's Thar desert and the surrounding areas for water security to cater to the drinking water needs of a few families (Konar, April 2007). A taanka, made up of an enclosed, underground, impermeable tank, fitted with a top cover to prevent evaporation of stored water and its contamination through entry of foreign particles, is meant for collecting rainwater on shallow land. Through filtered inlets in the pit wall, rainwater is made to fall from rooftops, courtyards, or artificial catchments into the tank. Valves are constructed to drain the surplus rainwater that falls during the monsoons. In view of high success rate of the technique, it is still in use.

The talab system, comprising water storage arrays, in Bundelkhand region had been devised to deal with problems of water shortage, facilitating people to endure the condition of drought, secure drinking water facility etc. The region's talabs were created by blocking the flow of water in streams by building sizeable earthen embankments. Hills with extensive quartzite beds flowing below them served as a groundwater barrier naturally trapping water. The centre of the embankment was convexly curved on these talabs, some of which were larger in size maintained by the state while the others were smaller handled mostly by the local communities (Murugesan, 2014). The utility of the talabs cannot be underestimated.

In Tamil Nadu, there is no perennial river, except Thamirabharani river. In order to solve the water crisis, here, the technique of eris construction was started. The technique was meant to store and manage rainwater in an eri or a tank thus utilising the rainfall to its best. In order to actively participate in irrigation, several eris were built in the region to serve as the flood prevention and water storage facility further preventing soil

erosion (Kay, 2009). The purpose of the eris in coping with water shortage is highly useful.

In North East India, an innovative technique of effective water management called the bamboo drip irrigation system had been in vogue for more than 200 years. The tribal farmers of the area had created an the system that uses various sized and shaped bamboo pipes to direct water from perennial springs to terrace fields. The technology makes sure that tiny drips of water are sent straight to the roots of the plants, making it best suited for crops with lower water requirements. The inhabitants of southern Meghalaya specifically, near the Bangladesh border, have been traditionally using elaborate networks of the bamboo pipelines to supply water to betel leaf harvests in rocky and lofty places where channels are hard to construct. This technique is being used till today by people of North East India (Agarwal & Narain, 1997).

Existing Eco-Restoration Techniques for Success of Water Management – Case Studies

a) Sukhomajri Village, Haryana

Sukhomajri, near Chandigarh (UT), is the first hamlet in India to have set example of conservation of its damaged watershed enabling to levy an income tax on the revenue thus generated. When the country was hit by a severe drought in 1979, the peasants constructed small tanks to collect rainwater and protect their watershed in order to ensure that their tanks did not get silted up (Agarwal & Narain, 1999). The assurance of the forest department to the villagers to have a right to utilise the forest area served as a key factor for the locals to conserve their watershed. The villagers contended that because they were safeguarding the watershed, they should be able to reap the perks of increased biomass production. The state forest department agreed to provide the villagers with the grass rights in exchange for the villagers' paying a royalty equal to the forest agency's average income before they began safeguarding the watershed. A cost-benefit study concludes that the combination of government, corporate,

and community investments, as well as the villagers' participation efforts, has resulted in a rate of return in the order of 19 percent (Chopra, Kadekodi, & Murthy, 1990). The tanks have helped to nearly triple agricultural productivity, and the forest area has been protected, which has considerably boosted grass and tree fodder supplies and milk output also. Sukhomajri's economy has witnessed transformation as a result of its expanding affluence. A villager wonders, "Who'd have thought one could have televisions, tractors, and bicycles for only grass and water." The cost of desilting the Sukhna lake, located in Chandigarh which feeds water to the down-stream of this city, is one of the project's most spectacular savings. The sediment input has decreased by more than 90 percent. The government saves Rs. 7.65 million ($0.2 million) in dredging and other expenditures each year (Chopra, Kadekodi, & Murthy, 1990).

b) Ralegan Siddhi Village, Maharashtra

Ralegan Siddhi, a village in Maharashtra's has the history of being a drought-prone region, where yearly rainfall ranges from 450 to 650 mm, and as such people here had been unable to count on even one normal harvest (Mahapatra, 1997). The community was impoverished in 1975, with each family owning less than an acre of irrigated land (Hazare, 1997). An initiative for water conservation was taken by a retired Indian army driver named Krishna Bhaurao Hazare who started building the storage ponds, reservoirs, and gully plugs. The groundwater level began to rise as a result of the constant flow of water. At the same time, 300,000–400,000 trees were planted in and around the village through government social forestry schemes (Chopra & Rao, 1996). Land which had been lying fallow hitherto was brought under cultivation with the improved irrigation water availability as a result of which the total area under cultivation grew from 630 hectares to 950 hectares (Hazare, 1997). The village made every effort to guarantee that all residents had equal access to the resources produced. There is fair distribution of water. Only crops with low water requirements were permitted. Groundwater availability has grown due to the water conservation measures, which have encouraged the installation

of community wells. Farmers are able to cultivate yield twice or thrice a year, including fruits and crops, thanks to the water from these wells, which is available at a reasonable price (Mahapatra, 1997).

c) Jhabua District, Madhya Pradesh

The government's watershed management initiative (under Rajiv Gandhi Watershed Development Mission) in drought-prone Jhabua district of Madhya Pradesh has become a shining example of government action in eco-restoration of the area that encourages citizens' participation. The approach to the programme is comprehensive and interactive (Agarwal A. , 1998). In a region that looked like a moonscape in the mid-1980s, trees are sprouting now. As a result of cumulative efforts, this district may be seen with wells which practically are overflowing with water (Agarwal & Mahapatra, 1999). The initiative established various layers of institutions at the state level for policy coordination, at the district level for implementation, and at the community level to ensure that all villagers actively participate in the endeavour. For instance, in the 374 villages of Jhabua, 1,748 women's cooperatives with 25,506 members were established. But most crucially, significant attempts have been undertaken to grant local communities' authority over decision-making and control over their resources. The villagers are actively involved in the management of funds allocated to the watershed project. The Watershed Development Committees comprising local residents, control about 80 percent of the program's finances in a bank account. The Watershed Development Committee attempts to bring together all of the village's major interest groups. The development of Jhabua is an excellent illustration of the outcomes that may be expected when a government commits to working with the people.

d) Revival of Arvari River, Rajasthan

In arid and desert region of Rajasthan, the technique of rainwater harvesting has revived the river Arvari. The river runs through an area that is severely drought-stricken. Villagers there were so impoverished that they must migrate to the city in search of work in order to survive.

Historical records of the area indicate that the river Arvari formerly replenished the groundwater in the area's wells. Its source is located close to the village of Bhanota-Kolyala amid some degraded hills. The people of Bhanota-Kolyala initiated effort of construction of a rainwater collecting system known as a *johad* in 1986 in collaboration with a regional NGO called the Tarun Bharat Sangh to collect rainfall and utilise it to replenish the groundwater. Nearly 70 villages in the watershed area of Arvari have now erected more than two hundred water harvesting systems. The river has been replenished thanks to the small dams. The Hamirpura villagers who live beside the Arvari were informed in 1996 that a contractor had received a permit from the state administration to begin fishing in the river. However, the villagers requested a say in how it was controlled and the right to exploit its resources for their own prosperity. Together with Tarun Bharat Sangh, they founded the *Arvari Sansad*, an organisation comprising all the villages along the river's path, in January 1998. By resolving an environmental problem and altering the local landscape, Tarun Bharat Sangh compelled the state government by using legal measures to transfer management of the river and its resources to the local community.

Suggestions towards Sustainable Solutions

Having assumed that water is an inexpensive resource that can be exploited indefinitely, a lot of individuals do not think about or restrict their water consumption. Their mindset needs to change promptly and their water demand needs to be managed well while making them aware to use water wisely and responsibly. Diverse perspectives on water concerns lead us to a plethora of water management options towards sustainable solutions.

A) Water Conservation - Reuse and Recycling of Wastewater

Water is a major requirement for agriculture. In India, 78% of all water needs are met by irrigation water for crops. However, only 38% of the water is used effectively. It becomes crucial therefore to employ cutting-edge irrigation methods and technologies in order to improve the

efficiency of water use. To manage enormous amount of wastewater released from agricultural lands, wastewater treatment may seriously be attended and applied to such lands. Building eco-villages and implementing eco-agriculture are the best approaches towards wastewater treatment of agricultural lands. A voluntary residential community with the aim of improving its social, cultural, economic, and ecological sustainability is referred as an eco-village. Through deliberate physical design and individual behavioural choices, an eco-village aims to have as minimal effect as possible on the environment. Whereas, lesser use of chemical pesticides, chemical fertilisers, and water are the major attributes of eco-agriculture. Additionally, the bio-waste produced by eco-agriculture and eco-village construction is employed as a resource or an energy source.

Definite programme may be placed intact to manage the domestic wastewater. Over the past twenty years, Europe has developed facilities and source-separation techniques for domestic wastewater which is segregated into three categories: grey water (cleaning activity wastewater that is less contaminated), yellow water (flushing wastewater), and black water (flushing wastewater for faeces). These structures and methods make it possible to utilise wastewater as a resource while also drastically reducing water usage. This may be implemented in India as well.

Various industries need varied amounts of water depending on the features, the technology employed in the manufacturing processes, and other factors. All industries ought to cut back on water use and wastewater released during manufacturing. Further, they ought to create and implement cleaner production methods. Technologies for conserving industrial water may be created and put into use as quickly as practicable

Recycled water may be used as a water resource for industries and farmlands as well as by the governments at local level. Wastewater may be used as a source of energy due to the organic contaminants it contains. Wastewater frequently contains the elements nitrogen, phosphorus,

potassium, and magnesium, which can be recycled and reused again as fertilisers or chemicals. Recycled water usage targets should be carefully chosen. Because agriculture consumes the majority of water in India, it is important to pay particular attention to the reuse of recycled water for irrigation. The removal of nitrogen and phosphorus should not be a part of the design of a wastewater treatment process if recycled water is to be used for irrigation since these may be used by plants as fertiliser. Thus, using recycled water for agriculture irrigation could reuse water, nitrogen, and phosphorus together while lowering the cost of water treatment by keeping nitrogen and phosphorus in the wastewater.

Recycled water may also be utilised for watering parks and gardens, municipal cleaning, and industrial cooling, among other things. It is crucial to develop and implement high-performance, affordable, and suitable technology for wastewater treatment. The usage of recycled water, however, would help the hydrological cycle in all circumstances as water will be returned to the ecosystem and not the waste.

B) Rain Water Harvesting - A Viable Option

Rainwater harvesting refers to gathering rainwater where it falls or runoff in one's own hamlet or town. Water may be harvested in a variety of methods (Agarwal & Narain, 1999) including capturing runoff from rooftops, capturing runoff from local catchments, capturing seasonal floodwaters from local streams and conserving water through watershed management.

Rainwater harvesting is capable of meeting the drinking water demands of any hamlet in India. Even in arid areas with just 100 mm of yearly rainfall, one hectare of land can potentially capture approximately one million litres of water (Agarwal & Narain, 1999). Since population density and rainfall levels are linked, more densely inhabited places require less land to collect the same quantity of precipitation. And there are generally more non-porous surfaces at locations such as, roof tops, which boost runoff efficiency.

Local water harvesting systems built by local communities and families may lessen the demand on the state to provide all financial resources required for water delivery, in addition to boosting water availability. Because the governments in lesser developed nations are frequently short on finances, this strategy helps alleviating the budgetary limitations they face. People have a higher sense of ownership over water projects if they are involved, which help in reduction of government funding. Furthermore, when communities and families establish their individual water supply systems, they are more inclined to maintain them, reducing the threat of lack of maintenance, broken-down systems, and squandered funds. In fact, water may be used more efficiently.

Thus, rainwater harvesting, makes water everyone's concern towards which every household is expected to become responsible for the supply of water and safeguarding water resources. It necessitates re-establishing human-environmental relationships thus considering water as a valuable commodity rather than a commodity to be taken for granted. It entails empowering urban and rural populations to administer their own concerns, with the state providing important assistance and civil society playing a significant role in promoting fairness and long-term water usage sustainability.

C) Construction of Check Dams

A dam is meant to prevent or limit surface water or subsurface streams from flowing. Dam provides reservoirs that are used for a variety of purposes, including farming, human consumption, commercial usage, aquaculture, and navigation. It can also be used to retain or store water that can then be dispersed equitably amongst different areas. While the big dams, on account of their giant size, involve huge investment of cost and tend to displace many local inhabitants, the check dams are lesser costly which do not tend to displace the locals or harm nature to a greater extent. Seeing more the cost effectiveness, utility and advantage to meet daily water requirements of an area, check dams are being frequently built. Erection of several check dams in Bihar district has stopped migration of

several people from village to village as it used to be a practice earlier (Roth , Boelens, & Zwarteveen, 2005). The government should try to build more government funded or NGO sponsored check dams at a place where there is water shortage and to replenish the ground water and the natural habitat. The establishment of rules, norms, and institutional structures to assure water distribution should be mandated by government policy.

D) Revival of *Johad* Culture in Rural India

Johad, also known as a percolation pond, is a society-owned traditional harvested rainwater storage wetland primarily used for effectively utilising water resources in the rural areas of states of Haryana, Rajasthan, Punjab, and western Uttar Pradesh. *Johad* collects and stores water throughout the year, to be used for recharging groundwater, washing, bathing, and drinking by cattle. Some *johads* also have masonry made of bricks or stones, as well as a cemented ghat (a set of stairs and/or a ramp). The pit fills with rainwater. These are linked to other minor pits. The smaller pits are filled with the surplus rainwater. After that, the water is used for washing clothes as well as cleaning.

A *johad* is not without the religious significance. The Hindu classic *Matsya Purana* mentions a *shloka* (hymn) that highlights the importance of ecological awareness in Hinduism. "A pond equals ten wells, a reservoir equals ten ponds, a son equals ten reservoirs, and a tree equals ten sons," says the Purana. The *samshan ghats* (or a cemeteries) in villages are usually found near a *johad*. This serves two purposes: first, to prevent any mishap due to fire, and second, to perform the holy rites like, washing and bathing for the people, who brought the dead body. On the banks of *johads*, grama devata (village deity) temples and *jathera* shrines of the *pitrs* for ancestral worship are commonly found. Other religious, social, and utilitarian human activities are also performed on the banks of these *johads.* Keeping alive the *johad* culture in present times by a few states of our nation is an inspiration for others to adopt the same as an effective water management recourse.

E) Rejuvenation of the Lost Rivers

The need for social movements to rejuvenate the forgotten and the lost rivers for the benefit of people and the environment is urgent. The rejuvenation of river would attract environmentalists in search of answers to many common health and environmental concerns, as well as significant potential for general socio-economic growth in the surrounding regions. The key advantages of a river rejuvenation, as supported by the activists (Patra & Bandyopadhyay, 2019) are:

a) transportation of people and commodities at a lower cost by using the rejuvenated river as a canal,

b) increased irrigation in the surrounding region of the rejuvenated river,

c) control of natural disasters by reducing the risk of flooding during heavy rains, as a river acts as a natural drainage system,

d) fetching employment from fishing in the river,

e) preservation of natural equilibrium of the ecosystem and reduction of pollution,

f) enhancement in recreational river activities and promotion of tourism etc.

The rivers were and are more than just a natural occurrence; they entangle cultural history and oral traditions of the people who lived/live on its banks. The rivers hold a special place in the hearts of the people. The extinction of such rivers of the past like the Sarasvati did not only result in an environmental loss, but it also had a significant impact on the people's tangible and intangible legacy. As a result, researchers must include this cultural factor while researching the local environmental movement. These emotional and organic ties to the rivers have been essential in instigating uprisings by many local residents, both young and old, and motivating them to participate in movement towards the water management.

In our nation, the dedicated effort is being made to rejuvenate, the extinct rivers of the past, for addressing the concern of water scarcity and mention

here may be made of the rejuvenation of river Sarasvati. The presence of the Sarasvati River is frequently described in the ancient Hindu literature, the Rigveda as a river that drained north-western plains of India, passing through the states of Punjab, Haryana, Rajasthan, and Gujarat, as well as parts of modern Pakistan (Saini, Alok, & Pant, 2020), and supporting, sustaining and maintaining the large Indus Civilization in its basin from the Himalayan front to the Gujarat coast (Kalyanaraman, 2008).

However, the Sarasvati River's existence is one of the most contentious matters in Indian geology, history, and archaeology because of its buried path and lost palaeochannels. Due to its relevance in cultural evolution and many archaeological findings like earthenware, bricks, coins and remains of a statue earthen pots, coins etc. this desiccated river has been the subject of debate and scientific study over the last 140 years (Siwach, 2021). The palaeocourse of this river, the causes and timing of its drying, and the causes of civilization's fall are being studied by the researchers. The drying up of the Sarasvati River is attributed to monsoon weakening (Tripathi, 2004) and tectonic shifts (Valdiya, 1996). It's impossible to believe that growing aridity could have rendered a huge river spanning many climate zones obsolete. If that's the case, aridity should have had an impact on the flow of surrounding rivers like the Sutlej in the west and the Yamuna in the east. As a result, other possible causative reasons are being looked by the researchers.

Although a great quantity of new data on surface, subsurface, and temporal elements of Holocene deposits and antiquities along the Sarasvati river's channel has been generated in the last two decades, the task of describing its progression through geological time remains challenging. Using remote sensing and other technologies, several research investigations have lately been conducted in pursuit of the Sarasvati River palaeo-course. To better understand the palaeochannels of the river Sarasvati, researchers are using high quality and enhanced digital techniques such as MCI mapping (Mineral Composite Index), elevation profiling, hydrological routing, stream network generation using SRTM DEM data (Shuttle Radar Topographic Mission - Digital Elevation

Model), and analysis of sediment samples from representative sites and available lithological logs (Mehdi, 2016). Since there is no water flowing in the Sarasvati River, the Haryana government decided to invest approx. ₹216 crore on the construction of a dam and reservoir on around 80 acres of land at the Haryana-Himachal border near Adi-Badri, which is regarded as the Sarasvati river's origin (Mohan, 2022). Water from Somb river, a tributary of the Yamuna that originates in the Shivalik hills, will be stored to flow into Sarasvati.

Conclusion

The over exploitation of water has led to its acute scarcity which has caused water crisis in India as in other countries of the world. The sustainable solutions for water management are the need of the hour which should be effectively implemented for the survival and safeguarding of the humanity. The water management is achievable even in extremely degraded areas. Many traditional and existing practices of water harvesting which have been working well in different parts of our nation may be continued or developed for their best utility in present times in areas of conducive conditions. Reuse and recycling of wastewater, rain water harvesting, construction of check dams, revival of the *johad* culture in rural areas and rejuvenation of the lost rivers may be taken as valuable suggestions towards sustainable solutions for water management. These are needed for the transformation of our nation's resource from ecological poverty to sustainable economic wealth. The importance of practical and proper implementation of the said suggestions is crucial in view of the fact that water is among 17 Sustainable Development Goals announced by United Nations Organisation which demands for ensuring the availability and sustainable management of water and sanitation for everyone. This certainly is a wake-up call for all of us and as such we should be sensitive to attend seriously to the water management programme with sustainable solutions unless it is too late. The complete success of the entire programme representing the success of the society depends on the full mutual support and cooperation of government, non-government organisations, community and individuals. A society's success or failure

may not always be judged in numerical terms. It may be seen in the qualitative improvements that it may bring in the lives of people and their surroundings by achieving the stated goals besides bringing people together on a more general level, centred mostly on environmental concerns (Guha, 1988). No opportunity should be missed out which may take us towards sustainable solutions of the water management.

References

Agarwal , A., & Narain, S. (1999). *Community and Household Water Management, the Key to Environmental Regeneration and Poverty Alleviation.* New Delhi: Mimeo, Centre for Science and Environment.

Agarwal, A. (1998). The House that Digvijay Built, Down to Earth. *Society for Environmental Communications*.

Agarwal, A., & Mahapatra, R. (1999). Madhya Pradesh: regaining paradise. In A. Agarwal, S. Narain, & S. Sen, *State of India's Environment-1999, Citizens' Fifth Report,.* New Delhi: Centre for Science and Environment.

Agarwal, A., & Narain, S. (1997). Dying Wisdom: Rise, Fall and Potential of India's Traditional Water Harvesting Systems, State of India's Environment: A Citizens' Report. *Centre for Science and Environment*.

Agarwal, A., & Narain, S. (1999). Making Water Management Everybody's Business: Water Harvesting and Rural Development in India. *International Institute for Environment and Development, 87*.

Chopra , K., & Rao, S. D. (1996). Economic Evaluation of Soil and Water Conservation Programmes in Watersheds. *Institute of Economic Growth*.

Chopra, K., Kadekodi, G., & Murthy, M. (1990). Participatory Development: People and Common Property Resources. *Sage Publications*.

Goal 6: Clean water and sanitation. (2022, February 19). Retrieved from UNDP: https://www.undp.org/sustainable-development-goals# clean-water-and-sanitation

Guha, R. (1988). Ideological Trends in Indian Environmentalism. *Economic and Political Weekly, 23*(49), 2578-2581.

Haryana mulls giving marks to class 12 students for planting trees. (2021, July 26). Retrieved from Hindustan Times: https://www.hindustantimes.com/cities/chandigarh-news/haryana-mulls-giving-marks-to-class-12-students-for-planting-trees-101627242568655.html

Hazare, A. (1997). Ralegan Siddhi: A Veritable Transformation. *Ralegan Siddhi*.

Kalyanaraman, S. (2008). *Vedic River Sarasvati and Hindu Civilization.* Aryan Books International.

Kay, D. (2009). Water Management. *International Encyclopedia of Human Geography, Elsevier*, 207-214.

Konar, M. (April 2007). Rainwater harvesting in rural India - taankas in the Thar Desert. *Waterlines, 25*(4).

Koul, D., Singh, S., Neelam, G., & Shukla, G. (2012). Traditional water management systems: An overview of Ahar-pyne system in South Bihar plains of India and need for its revival. *Indian Journal of Traditional Knowledge, 11*(2), 266-272.

Kumar, M. D. (2018). Water management in India: the multiplicity of views and solutions. *International Journal of Water Resources Development, 34*(1), 1-15.

Kumar, M., Bassi, N., Venkatachalam, L., & Sivamohan, M. (2012). Capacity building in water resources sector of India. *Institute for Resource Analysis and Policy, 4*.

Mahapatra, R. (1997). *Field Report on Adarsh Gaon Yojana.* New Delhi: Mimeo, Centre for Science and Environment.

Mehdi, S. (2016). Identification of palaeochannel configuration in the Saraswati River basin in parts of Haryana and Rajasthan, India, through digital remote sensing and GIS. *Episodes, 39*(1), 29-38.

Mohan, N. (2022). *Haryana to rejuvenate Saraswati river with water of Somb river.* Retrieved from https://www.hindustantimes.com/cities/chandigarh-news/haryana-to-rejuvenate-saraswati-river-with-water-of-somb-river-101642707694785.html, January 2021.

Murugesan, A. (2014). Traditional Water harvesting systems of Rajasthan. In N. Krishna, & A. Singh, *Ecological Traditions of India: Rajasthan.* Chennai: C.P.R. Environmental Education Centre.

National Water Mission, Ministry of Jal Shakti, Department of Water Resources, RD & GR, Government of India. (2022, 6). Retrieved from NVM.Gov: http://nwm.gov.in/

Pande, B. (1997). A multi-millennial mission. In A. Agarwal, & S. Narain, *Dying Wisdom: Rise, Fall and Potential of India's Traditional Water Harvesting Systems, State of India's Environment: A Citizens' Report.* New Delhi: Centre for Science and Environment.

Patra, D., & Bandyopadhyay, S. (2019, July – December). River and Environmental Movement. *Indian Anthropological Association, 49*(2), 57-73.

Roth, D., Boelens, R., & Zwarteveen, M. (2005). Liquid relations: Contested water rights and legal complexity. *Rutgers University Press*.

Saini, H., Alok, A., & Pant, N. (2020). The lost saraswati river of north-western Indian plains: Status and way forward. *Episodes, 43*(1), 524–534.

Shah, M. (2013). Water: Towards a Paradigm Shift in the Twelfth Plan. *Economic and Political Weekly, 48*(3), 40-52.

Siwach, S. (2021). Along the lost Saraswati trail, a 1600-yr-old site of 'continued habitation'. Chandigarh: Indian Express, November 30.

Tripathi. (2004). Is River Ghaggar, Saraswati? Geochemical constraints. *Current Science, 87*, 1141-115;.

Valdiya, K. (1996). Saraswati that disappeared. *Resonance, 1*(5), 19-28.

The Degrading Images of 'W' as Colloquial and Commercial in *Bollywood* item Songs

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Abstract

The 'W' is referred to women in society. Women are represented through various means in society; mass media is one of the significant agencies. The popular tool in mass media is cinema, and women occupy an eminent space in films. The present article deliberated on the Bollywood 'item' songs which are supposed to be a necessity of today's commercial cinema. It has become an integral and crucial feature in mainstream commercial cinema. It ensures that the cost of producing the cinema can be earned through the song, if not through the storyline. This is considered one of the critical parameters for increasing the saleability of art pieces. It influences the movie makers to make compromises on the women's images by representing the 'item' with an entire song that is sensual, colloquial and indeed carries a commercial value. More significant than the life persona of the characters and events stresses the budget of filmmaking. Recent trends have established that songs containing visual and literal sexual objectification of 'W' gives a sexual/sensual arousal to many moviegoers and push them to high earnings. Many Bollywood films got the commercial super hit label with all-time high earnings only because of their foot tapping and fantasy-driven 'item' number. The present article analyses the portrayal/images of 'W' in item numbers based on its colloquial and commercial aspects. These images are constructed by framing women into 'a supposed to be an inferior and degraded frame' as a part of the effects of entertainment through popular media like films. In these songs, the idea of 'W' is constructed with the stereotypical patriarchal lens where a woman is in the man's possession. The man represents the patriarch and moulds her as per his and other menfolk's desires. Bollywood is no exception to this. The criteria to select the songs for the research purpose were purely based on their commercial standing in the market. Songs released and floated in the last one and a half decades were chosen. The researchers have also experienced the perceptions of these songs through the reflections of the masses. These sexy item numbers were inserted for the 'male gaze, reducing the 'W' to

merely a body that is 'raw and fresh flesh without a soul.' Used phrases and semantics in the lyrics, which denote the images of women, were analyzed.

Along with that, how the overall appearance of the song, including the music, beats, genre, accents, punches, pauses and rests, creates impact is part of content analysis. It was essential to have an academic discourse on the same because not all entertainment can be entertained so easily. They are bound to be critiqued. The critical analysis presented in this paper attempts to bring out an academic discourse on women's questions.

Keywords: W, Framing, colloquial, commercial, item songs, images, meaning-making

Introduction

"Derrida's critical approach to deconstruction shows us that dualisms are never equivalent; they are always hierarchically ranked. One pole (presence, good, truth, man, etc.) is privileged at the expense of the second (absence, evil, lie, woman, etc.)." (Guillemette and Cossette 2006).

'W' stands for women, a brand used for women. The 'W' is also a popular apparel commercial brand meant for women only. This article uses the term 'W' for women and the women's world, which has been used by feminists as well. There is an indispensable relationship between women and cinema with a flavour of commercial in it. The term 'item' is meant for the actor who is a woman with an attractive body. It is assumed that the body is distinctly visible with all its possible curves meant to be presented before the men in society. It will not be an exaggeration here to mention that the item is used as synonymous with a woman. The image-building process, known as the schematic process, happens in the cinema hall. There is a possibility that the interaction of the content may continue to construct the gendered images. There have been incidences of eve teasing where men have gone to the extent of saying, '*ye meri wali item hai aur woh teri wali item hai*' (this item is mine, that one is yours). Such denigrating images have been built by the popular media.

Moreover, the music presented by so-called items in dance form, vulgar, sexual, sensual, dirty, and erotic, is called 'item' songs. These constructions are very much responsible for framing women in one category. Moreover, that category is called 'body or object'. Such social constructions result in the culmination of

sexual violence and criminal behavior. Jain et al. (2019) researched, "Bollywood item songs mostly represent women in a hypersexualised manner. The lyrics, dance movements, musicality, and nudity of the item number performances manufacture a sexist discourse. Such discourse signals women's sexual availability, display erotic appetite, and highlight male fantasy" (p.3). Peter Hanakova cited in Mazierska and Naripea (2014), "when watching a New Wave film, we immediately become aware of the heightened presence of and the emphasis on the body, its needs, and deeds, but also of the body pictured as a site of possible control and exploitation" (p.168).

The cinemas represent diversity, so it is inevitable to have a varied team working together on a similar project. This project becomes the communication channel between the actors and the audience. The most critical ingredient, therefore, is the content. Within this voluminous content, there are varieties of other communication tools used. Songs are an essential tool to portray the emotion and effect of the storyline. In the whole scenario, the item songs are categories that can break the monotony at both ends within cinema and the audience. There may or may not be a connection with the movie plot, but they are spaced in a manner in which it can be said that it gets a privileged slot. It could be to set the sensual and sexual fervour intact. The pattern the cinema world follows is that an attractive, gorgeous, and famous actress who can pull the crowd to the theatre is given the role of performing the item song, which bears vulgar lyrics and vulgar moves. The lyrics of the songs are written keeping in mind the popular culture traits. It means cutting across the boundaries of the region (rural-urban) and class, as there is a depiction of persons, especially men, from all occupations and areas. The songs bear the popular slangs used by men, e.g., *Sasuri* (used as slang for mother-in-law), *chikni* (good-looking and fair complexion girls), *patakha* (firecracker). The names of the item song performers are catchy- *Billo*, *Sheila, Munni*, *Chameli, Jalebi, Tinku Jiya* have folk characters, which are popular and in colloquial usage.

Now there are numerous questions about the term colloquial and numerous interpretations too. There are several questions about colloquial; is colloquial and local, or is folk the same? Is colloquial vulgar? Has colloquial as a term impacted women alone or men or neuter gender have also been impacted by it? How has cinema used the colloquial punch in it? It becomes crucial to decipher in what

context the term colloquial has been used here in this paper. The dictionary (www.dictionary.com) meaning of the word colloquial is *familiar conversation rather than formal speech or writing; informal. Colloquial, conversational, and informal refer to types of speech or usages, not on a formal level. Colloquial is often mistakenly used with a connotation of disapproval as if it meant 'vulgar' or 'bad' or 'incorrect' usage.*

Informal means without formality, without strict attention to set forms, unceremonious: an informal manner of speaking; it describes the ordinary, everyday language of cultivated speakers. In contrast, it is merely a familiar style used in the oral exchange of ideas, opinions, etc.: an effortless conversational style. One can understand that the context provides meaning to the whole phenomena.

Lukianova & Fell (2011) wrote, "the sign/person dichotomy is the most important element in the meaning-making process and is presented as mediating link between thought and speech sound" (p.615). (Manning & Kunkel, 2014) "… qualitative interpretive research focuses on meaning making as a reflexive, complex, and continuous process" (p.3). The unit of analysis like text, lyrics, stage, costumes, the pace of performance, music, voice, camera, and ambiance all are part of semiotics analysis which helps in making meaning. The speech sound is essential to understanding—the tone and style of presenting a particular word influence the interpretation of its meaning. Lukianova & Fell (2011), the concept of Peirce's unlimited semiosis is an integral part of the process of a human being's acquaintance with himself/herself and the world. Language as a manmade system of signs is the core of all communication processes. A person is the holder and carrier of language, and by using signs people are able to think in abstract terms and to reflect on their nature and the world, thus entering into various forms of communication" (p.615). The colloquial words are used to create punch, at the same time, making it the property of the commoner. The usage of semiotics is such that it appeals to people and makes a difference in taking care of commercial aspects. It can be presented through a line of item song only; *mere photo ko seene se yaar, chipkale saiyaan fevicol se* (stick my photo in your heart, dear beloved, with fevicol). This line has a colloquial tone keeping the coverage of a vast canvas where people relate to the cities and countryside. The English terms are inserted in such a manner as semiotics to popularise the

song. Hence, it is imperative to understand that cinemas are for entertainment, and it means business. Using those indigenous/English words and phrases is to monetise the picturisation of women's image through the song, which has a commercial value. It caters to the public. The idea which governs is to capture people's attention grossly. The one thing which has been popularly used in cinema is the Colloquial punch. It means using informal or local words and phrases to connect with the public or masses in the script.

Further, the way it is carried out to have the flow of the meaning, that is, the style or the punch through which it comes out of dialogue delivery, is another aspect that constructs the context. As long as the colloquial words are used, it is considered normal, but conscious efforts have been made to construct new normalcy with the gross usage of slang used in everyday daily life, as discussed above. Moreover, efforts are taken to make the songs more contextual with the addition of a singing style. The remix culture takes care of the next generations' acceptance. *Chhamma Chhamma*, the song in 1998 and then in 2019, has been made. Similar works can be seen in *Laila main Laila* was presented in 2017 in *Raees* film was adapted from the famous Feroj Khan starred film *Qurbani*. There is a difference in clothing, rap has been incorporated, and breath-taking moves popularly known as the sexy style have been added. The song below reads the meaning which is being made out of it;

Chamma Chamma Baaje Re Meri Paijaniya (My anklet vibrates with a rhythmic sound as *chhumma chhumma*)

Desi Beat Pe Hilti Kamariya (your waist swings on the colloquial beat)

Uss Par Tiki Hai Meri Nazariya (My eyes are stuck on that)

Main Hoon Pyaasa Tu Hai Dariya (I am thirsty and you are river)

There Gol Gol Kaano Ke Jhumke (your round-shaped earrings)

Ek Baat Bolo Jana Meri Sunke (my dear, you mark my word)

Sau Mein Se Sau Maine Diye Tere Nakhre Ko (I have given 100 out of 100 to your attitude/tantrum)

Aag Lagi Jab Mare Thumke (put me on fire, your moving hips).

One can question that the presenting women's bodies in scanty and skimpy clothes and men ogling at her body curves establishes the fact of 'ways of seeing' (Burger, 1977) a body and hence ways of seeing a woman. Purohit (2019) writes, "Semiotically; the women have always been the signifier and not the maker of the meaning. The language here becomes a medium of expression of the libido of the males, articulating males' desires, whereas the woman is still tied to the same place as the bearer of the meaning" (p. 1843). Furthermore, it is interesting to corroborate here that in Indonesian society, the 'feminine' and 'masculine' traits have been referred to as 'marked' and 'unmarked' (Clark, 2004). The constructions of seeing and viewing a gender are categorized distinctly as controlled and uncontrolled; women as controlled and men as uncontrolled.

The cinemas are making frequent use of such words in their scripts as they feel that this will popularise the script to a great extent to make the film a great hit. Nevertheless, one also needs to understand that this mode of communication is significant in dwelling on people's acceptance of these scripts while influencing the acceptance level of goodness and vulgarity associated with those words. It is popularly known that vulgarity is being built to a great extent as the person is exposed to the words considered unacceptable in daily life conversation and are being sanctioned through the films. There are several examples to prove the statement. The usages are as *tere maa ki* (your mother's…) or *bhain de takke* (one who trades his sister), either the slang used for mother or sister's relation has been used, or we can say abused.

Strinati (1995) has attempted to describe postmodernism as a part of the breakdown of the distinction between culture and society. "The mass media, for example, were once thought of as holding up a mirror to, thereby reflecting, a wider social reality. Now reality can only be defined by the surface reflections of this mirror. Society has become subsumed by the mass media. It is no longer even a question of distortion since the term implies that there is a reality, outside the surface simulations of the media, which can be distorted, and this is precisely what is at issue according to postmodern theory" (p.224). Woodward (2012) writes, "Feminists in the 1970s and 1980s critiqued the objectification of women's bodies in popular culture and argued that women were presented as

passive objects of the male gaze and not active subjects. This passivity and objectification sometimes extended to scenarios in which housewives reached heights of ecstasy over a new washing powder or household bleach. Women were represented as confined to a passive role as domestic workers and wives, and the critique unfortunately implied that women viewers appeared to be passive dupes to be so duped by the advertisers" (p.72). Unfortunately, the commercial effect of women's projection was not only carried out in the Hindi cinema; instead, it became almost necessary to place at least one item number all focused on women's bodies as sexual, sensual, vulgar, and an instrument of entertainment. Moreover, colloquial was caught to make it effective, contemporary, and acceptable.

Strinati (1995) further cautioned; "In the postmodern condition, it becomes more difficult to distinguish the economy from popular culture. The realm of consumption- what we buy and what determines what we buy - is increasingly influenced by popular culture. Consumption is increasingly bound up with popular culture because popular culture increasingly determines consumption" (p. 224). It is pretty visible in Indian Cinema as every film sells one item song performed by 'item girls' who used to perform an item number based on the colloquial catch with sensual rhythm with luring sounds and vocabulary. This is because of the gut feeling of the director and producer to sell the film. The idea is that if the storyline fails, then the item song can protect the commerce part of the film. Sahu (2005), "It is a primary source for the generation of publicity and generally regarded as a marketing tool. It involves the use of women in revealing clothes, loud music, and obscene dance movements that sexually objectify the female body so as to attract male audiences. In almost all situations, the picturisation consists of scantily dressed girl performing a provocative dance" (p.18). These item songs were/are based on sexist words loaded with fast music and considered to be hit dance numbers. This is how they reach every family and party as a matter of celebration. If the words are not accepted by the public, but the music is, their popularity is ensured. The question comes to mind; 'is compromising crucial in commerce?' what are the relationship between the economy, culture, and compromise? To what extent is women as an agency used

to achieve these commercial targets? Is it pursued through their (women) choice? It will be interesting to navigate the web of these questions. Nevertheless, some established facts make these things inevitable in Indian commercial Cinema.

The Methodology

This paper intends to gaze at three aspects; colloquial, commercial, and women's engagement with these two attributes (colloquial and commercial). The content analyses of the phrases and words used for women have been critically analysed. The semantics used to describe women have been consciously brought on discourse as it is making meaning to women's lives in particular and the lives of people in general. This has been done by analysing ten of the 'item songs' of Bollywood cinema. The songs picked in this paper has a range of 15 years (2005 – 2019). These songs are *chikni chameli (2012 in Agneepath), Munni badnaam hui (2010 Dabangg1), chipkale saiyan fevicol se (2012 Dabangg 2), aa re pritam pyare (2012, Rowdy Rathore), bidi jalaile jigar se piya (2006, Omkara), Jalebi bai (2011, Double Dhamaal), Chhamma chhamma* (2019, Fraud Saiyaan), *sheila ki jawani (2010, Tees Maar Khan), maiya maiya taare chun le (2007, Guru), tinku jiya (2011 Yamla Pagla Deewana).* The 'item songs' were also a part of Bollywood films before 2005. The year 1990 was a benchmark for Hindi cinema, as the impact of liberalisation brought several private players who had an opportunity to take it as their business. This is when one can see women's more glamourised body images (Jain et al., 2019) as one of the indispensable features of commercial cinema. It has been 30 years since the growing trend of item numbers as a mandatory part of Hindi commercial cinema. Hence, for this particular research paper, the trend of the last 15 years' item songs was considered to study. The paper questions the popular instruments (Bollywood item songs) of social constructs of gender, which present the identity of women reduced only to the body image.

Aa re pritam pyare	Come here, my sweet lover
Bandook mein naa toh goli mere	There are no bullets in my gun
Aa re pritam pyare	Come here, my sweet lover
Sab aag toh mere kurti mein re	All the fire is in my Kurti (top)
Zara hukka utha zarrra chillam jala	Lift the Hookah and light the pipe
Pallu ke neeche chupa ke rakha hai	It is hidden under my 'Pallu' (a piece of clothing)
Utha doon toh hungama ho	If upraised, then the real fun will happen
Pallu ke neeche daba ke rakha hai	It is suppressed under my 'Pallu'
Utha doon toh hungama ho…	If upraised, then the real fun will happen
Naa gilaaf, naa lihaaf	I do not have a quilt to keep me warm, not even a pillowcase. The fiendish wind is freezing. It is so cold that I feel like taking someone's quilt or warming myself with the heat from my neighbour's stove.
Thandi hawa bhi khilaaf sasuri	
Ho Itti sardi hai kisi ka lihaaf lei lay	
Ho Jaa padosi ke chulhe se aag lei lay	
Beedi jalai lay jigar se piya	You can light your beedi from my bosom since a firing rages in it. It is an implicit acceptance of the sexual proposal. Do not blow smoke from your lips, my love. This world is highly cunning.
Jigar maa badi aag hai	
Dhuan naa nikaariyo lab se piya	
Je duniya badi ghaagh hai	
Bichhoo mere naina badi zehereeli ankh maare	My eyes are like scorpions; they give a very poisonous wink…………………………………….
Kamsin kamariya saali ik thumke se lakh maare	this damned slender waist kills lacs with a jerk,
Note hazaaron ke, khulle chhutta karaane aayi	it has come to get change for notes of thousands,
Husn ki teeli se beedi chillam jalaane aayi	(she) has come to light cigarettes n pipes with the matchstick of beauty…………………………
Aayi chikni chameli chhup ke akeli pawwa chadha ke aayi	The beautiful Chameli has come alone in hiding and drunk on a quarter.
Aayi chikni chameli chhup ke akeli pawwa chadha ke aayi.	Beautiful Chameli has come all alone in hiding and drunk on a quarter.

If we see the songs, the songs have focussed upon the body, beauty in a specific meaning, love in a specific form *(Ishq* as only physical appearance), the picturisation or cinematography of these item songs, and the dresses used in the song.

The Body and the Beauty

The item songs have depicted women as body only. A woman's entire identity and multiple dimensions are dominated by varied physical appearance. The figure, the distinct and prominent curves, moves, skin colour, eyes, and walk find special mention in every song selected in this paper. There are specific phrases used frequently to depict the body of the woman are; *chikni* (flawless beauty)*, Kamseen kamariya* (the damned slender waist)*, Makhan jaisi hatheli* (butterlike palm)*, namkeen chehra* (salty face)*, zehreeli aankh* (poisonous eyes)*, Bichhoo Naina* (scorpious eyes)*, gaal gulabi* (pink cheeks)*, nain Sharabi* (alcoholic eyes)*, chal nawabi* (royal walk)*, Hilti kamariya* (dwindling waist). All such phrases and terminologies have described women as 'body' only. The appropriation of women as only a physical entity with attributes like zero sizes slender (*kamseen*) waist has made women obsessed with keeping low appetite. The racial remarks like *Chehre se Chandni Maine Kari* (I brought moonlight through my face) in *Jalebi bai* song. They are all expected to have sleek waists from a very early age of growing up, which hampers their health to a great extent. In the song *tinku jiya*, it says *Kali ankhon se Kitna Hungama ho Gaya* (your black eyes have created furore or ruckus). In addition, the body as a sexual object is presented in the song *mayya mayya. Ek Sauda Raat ka, Ek kaudi chand ki, chahe to chum lei, tu todi chand ki* (it is an agreement of one night with this moon, the cowrie here is used as the woman if you wish you can kiss the face of the moon). So, it is all about the physical appearance, the body, and the colour as the beauty of the woman's body is represented in the songs demeaning her intellect ability.

Overall Presentation and Projection of Women

Women have been depicted as *husn ki teeli* (firing beauty). This refers to the women's hot beauty, which is considered a prerequisite of being a woman. The phrase is referred to as firing beauty; her appearance has an electrifying effect on men. Then there are different phrases used in the above songs like *jaanlewa jalwa* (killing charismatic move)*, garam garam* (hot hot)*, jali jali, patakha* (hot and burning cracker)*, barfeele paani mein fire* (fire in the icelike cold water). The

phrase *thandi hona* is used for women being not sexy or sensual at all. The thoughts of women's images are governed in such a way that one comes across such complaints, especially in marital ones when husbands complain that *ye toh bilkul thandi hai* (she is freezing). Such dramatic songs create challenges in the lives of ordinary women living real lives far from cinema's commercial and colloquial elements.

In one of the songs, the item woman has been compared to *puri botal ka Nasha* (full intoxicated bottle of liquor) or *pawwa Chadha ke aayi* (a woman has come drunk the local liquor). Further, in one of the item songs, a woman has been denoted as *angoor ki daughter* (grapes daughter is considered as liquor as it is the grapes which are fermented and processed to prepare liquor which has intoxication). The lines of the song go as *Pyar kar le to Aaj angoor ki daughter se* (fall in love with the daughter of the grapes)*, nasihat bhool jayega to Ek quarter se* (you will forget all the advice by drink a quarter)*, peene wale ko bhi jeene ka mazaa ayega* (the person will have the ecstasy of drinking)*, ye who daroo hai jo chadh jaae sirf water use* (it is a kind of liquor which can intoxicate through water only). The woman's projection is that she can intoxicate anybody who has proximity to her, even if for a few moments. The vulgarity of the image reaches its limit when in the same song, a woman provokes the man by saying *main toh tandoori murgi hoon yaar* (I am a roasted chicken)*, gatkaa le saiyyan alcohol se* (beloved, gulp me with the liquor itself). Kapoor (2018) too analysed it in the context of cine sexuality. The whole womanhood is nothing but to be an appetite of the man. This is a raw example of patriarchy as it is the woman forcing herself on a man, saying she is like a *tandoori* chicken and can be swallowed with alcohol. She presents herself before the male gender as a subject to be handled as prey, used, misused, and played. It is vulgar to present a person before another person as a matter of gendered hierarchy. Woodward (2012) cautioned that this representation of gendered bodies and gender identities is a large part of popular cultural forms. Including the advertising of goods and services is central to neoliberal economies and indeed to the profitability of global capital. There has been a shift in emphasis from production to consumption. In the most economical system, such as that of the UK, consumption is crucial to maintaining economic stability. Consumption, like the advertisements that go with it, is powerfully gendered. Next time you watch something on commercial television, consider who the target audience might be

and note what advertisements appear in the break (pp.71, 72). This was written in the context of commercials where gendered representation can be marked in advertisements. However, this commercial consumption effect can be experienced through the big silver screen presentation and projection of women through item songs in Bollywood films.

Framing women: Cinematography and Picturisation

The women have been provided a specific frame through the culture. Important social institutions like culture have directed women or expected women to adhere to the norms of that culture. Ferguson (2005) "Robert Entman describes framing as a feature of a communicating text'. This suggests that the analysis of framing may be helpful for understanding speeches, protest signs, literature, advertisements-in short, anything that we can characterise as a text" (p.14). The present article dwells on the framing aspect of the Bollywood item numbers. The Bollywood community attests to these item numbers, who must have accepted it as an occupational principle of the film culture. However, it is important to register that the cinema, videos, and item numbers influence and impact human lives differently multi-dimensionally. It further impacts ways of seeing a person. Moreover, it further impacts ways of dealing with a person called a woman.

Sebeok (2001) "Semiosis is the biological capacity itself that underlies the production and comprehension of signs, from simple physiological signals to those that reveal a highly complex symbolism.' Human intellectual and social life is based on the production, use, and exchange of signs and representations. When we gesture, talk, write, read, watch a TV program, listen to music, look at a painting, etc., we are engaged in sign-based representational behaviour. Representation has endowed the human species with the ability to cope effectively with the crucial aspects of existence - knowing, behaving purposefully, planning, socializing, and communicating. However, since representational activities vary from culture to culture, the signs people use on a daily basis constitute a mediating template in the worldview they come to have" (p. 8).

Who is singing and dancing?

A girl or woman aged 20 to 30 years with a slim figure is purposefully chosen to depict a 'bold' image. It is primarily women singing and dancing, and men crowd

the whole place. A single woman surrounded by men has performed most songs. In some songs like *Munni badnaam hui* (Munni is defamed), the actor joins toward the end to attest to what *Munni* claims about her body, youth, sensuality, etc. The history of item numbers in films can be traced to the 80s when Helen was famous for her performance of item songs popularised through *Piya tu ab to aaja* (beloved, now you come to me)*, Aaj ki Raat koi aane ko hai* (someone is expected tonight)*, aa Jaane ja* (come darling), and many more. Significantly, Helen was known for her acceptance of such skilled performances. In the course of time, leading actresses like Katrina Kaif and Kareena Kapoor have performed the item numbers. It is an attestation towards normalising and popularising the objectification approach towards women.

What is she wearing?

In most of the songs, it is visible that a similar pattern has been followed. The woman actor who is performing wears a two-piece dress that supports her to show off her body curves distinctly. Also, the gestures and actions in the song revolve around the figure especially creating the sensual effect. Hence, at the beginning of the song and throughout, the actions of dancing revolve around the back of the body, or the breasts or facial expressions like cutting the lips through teeth are commonalities making the song sensual at times vulgar too.

Where the song and dances are being played and performed?

It is being orchestrated in the club or any party hall of the hotel, or any public space. The distinct characteristic of item songs is that men primarily capture the space. An actor dancing to the item song is strategically placed at the centre of the hall on the stage or a table on a higher platform amidst the crowd, which is essentially an all-men crowd. The crowd screams and the lights make the effect of something extraordinary that is about to happen. And then, with the music and focus lights on the body of a woman who is the sole actor among that screaming crowd appears with a special effect.

How the performance takes place?

It is done in a planned manner. The stage is set with remarkable effect. Among a massive crowd with loud music and lights, the item girl (one who performs on the item number is popularly identified with the item girl, and this too is contestable) appears, and the crowd cheers to the fullest. The choreography of the

steps and actions is catchy. Certain aspects of the body are highlighted more with the swings of the woman's body, her expression of the eyes and face, and the jerks of her waist, breast, and back are very prominent in all the item songs. She dances to the beat of the music, and the group of men assists her in jumping down or climbing up on any platform as per her dance moves. The men gathered in the hall ogled on the woman/girl and her body part. It is filthy as the expression on every face is that they wish the body would come to them. The whole focus is that the actor there is not a person or human at all. She becomes the body or instrument of entertainment, or it will not be an exaggeration if it is termed as 'men look at her as their prey. Furthermore, this becomes entertainment. The question here is whose entertainment is it anyway? Undoubtedly women will not like it. Do they have choices on that ground? Certainly not. It is a man's world and a man's society where women are a part of that world.

Women themselves are not the world that they should be. Historically, it is the man who wrote, designed, and delegated the responsibility to men and women. The women remained subordinate and were restricted to a body. The notion of choice does not arise till now in specific sectors, and cinema is one. During the 1980s, the item numbers were introduced with the actor Helen as a performer who danced to the numbers *Mehbooba Mehbooba* (darling beloved). The 'where' becomes very important, especially with the idea that these songs were /are performed where some important commercial or business deal takes place. The hero of the film is plotted to make some necessary twisting action or execute some strategic actions. The item number performing woman actor is strategically placed to create hurdles and distort the attention of the opposite team (who are against the hero's team).

Interestingly, the woman actor succeeds too. This again creates stereotype images of women actors that women can be teamed for specific work like luring men, creating situations which shake men's firmness so that target is met. This images woman as crooked. Moreover, they are used for such projects. Suppose we try to analyse the context of the item songs undertaken. Generally, it has been seen that in most songs, it is 'plotting.' It means that these songs are inserted with a strategic transaction. The songs are of high beats with noise, cheers, and screams. The set where the song is performed is crowded, mainly with men. There is

money, arms (guns), and alcohol. All the songs are pictured in the nighttime, with various lights spotting the woman and her body. A woman surrounded by several men, dancing amidst the numerous pairs of eyes, faces the male gaze. This is one familiar spot where the protagonist of the cast and opposite cast, villains, and other significant character meet. Under the garb of noisy performance, the characters, especially the hero and his ally involved in some scam, sort of any secret mission, business deal, killings, and crime, are smoothly conducted. The most portrayal is club song, the stage and light play very crucial role. Such picturisation ensures women's partnership in crime as well.

What happens towards the end?

The critical point is that modern technology has been introduced to make cinema more attractive. This is done with a new vision added to the picture, but the idea of a woman remains *status quo*, or somewhat it has become worse. She is presented as an instrument in a raw manner. The technology has been used to add to the effect of imagery, but the work on the image is lacking. This is a crude example of patriarchy which plays a vital role in the light of cinema and commerce. The usages of local dialects and proverbs with the colloquial acceptance have universalised that image of a woman. A woman is a woman; a body, an instrument of entertainment, that is all. The attestations through the state apparatus like police and politicians through their presence in the songs create an impression that the item songs and items are essential aspects of society.

Further, it was clear that these women were being used as tools to divert attention, crack the business deal, or solve crime plots. This idea gets reinforced through these item numbers included in commercial cinema. This reminds the famous dialogue on a woman from the film provoked *tu ek aurat hai...sirf ek jism...bas khelne ki cheez* (you are a woman.... only a body.... only a thing or tool to play).

Conclusion

It seems quintessential for Bollywood cinema to present the image of women in extremes, the 'good' and the 'bad.' The characteristic feature of the 'good' ones is to adhere to all the specified roles, a domesticated, family-oriented, never questioning image with totally docile characters, and functions to follow the norms as per cultural stated and allotted space. On the contrary, the 'bad' ones

present the club culture with skimpy dresses and expose their bodily gestures and eyes. The patriarchy has always nurtured these binaries to maintain the *status quo* of framing women in the limited space. The item songs of Bollywood cinema work as robust instruments to reinforce the power play of patriarchy and sustain the *status quo* of using women's images only for commercial purposes. The present paper tried to peep into the trend of the last 15 years of inserting item songs as a saleable value in Hindi cinema. Cinema is one of the essential instruments of mass media, and it has the potential to carry gender schemed images.

Moreover, it is the youth who outnumber any age group in viewership. The youth is in the process of understanding their gender and its relationship with the other genders. The cinema is not the content of entertainment only; instead, the content remains with the person beyond the entertainment. The dialogue with the content may disturb the schematic aspect of the viewer in general and the youth in particular. The 'women question' in such circumstances demands a serious and decent engagement between cinema and the viewer. The effort of this research article was to introspect and critically analyse the existing frame to alter the efforts with more equal and justifiable means. As a result, it will create a healthy and more accommodating environment for and with women, without any stereotypical image. It is high time to confront and question the existing frame. The women, too, are eligible to construct their frames instead someone else creating one for them. The idea of critiquing their representation through the item song as only a 'body' or 'commodity' through this paper is to construct a space to make women use their versatility in cinema. This can be achieved through the broader spectrum of choices they will possess for themselves. Undoubtedly, such efforts will protect women's right to be respected.

References

About lyricsgram. lyricsgram.com. (n.d.). Retrieved September 30, 2022, from http://hindi.lyricsgram.com/

Berger, J. (1972). *Ways of seeing*. BBC and Penguin

Berger, J., Blomberg, S., Chris, F., Dibb, M., & Hollis, R. (1977). *Ways of seeing: A book*. British Broadcasting Corporation.

Clark, M. (2004). Men, masculinities and symbolic violence in recent Indonesian Cinema. Journal of Southeast Asian Studies, 35(1), 113–131. https://doi.org/10.1017/s0022463404000062

Ewa Mazierska, & Eva Näripea. (2014). Gender discourse in Eastern European SF Cinema. *Science Fiction Studies*, *41*(1), 163. https://doi.org/10.5621/sciefictstud.41.1.0163

Ferguson, M. L. (2005). "W" stands for women: Feminism and security rhetoric in the post-9/11 Bush administration. *Politics & Gender*, *1*(01). https://doi.org/10.1017/s1743923x05050014

Hindi lyrics meaning, English translations. BollyMeaning. (n.d.). Retrieved September 30, 2022, from http://www.bollymeaning.com/

Jain, P., Roy, E., Garud, N., & Mazid, I. (2019). Sexuality and substance abuse portrayals in item songs in Bollywood movies. *South Asian Popular Culture*, *17*(1), 15–29. https://doi.org/10.1080/14746689.2019.1585605

Jha, P. (2014). Representation of women in Indian cinema: Analysis of item songs. *Humanities and Social Science Review*, 3(4), 191-199.

Kapoor, K. (2018). Representation of female characters through item songs in selected Hindi movies. *International Journal of Social Sciences and Humanities (IJSSH)*, *2*(1), 1-9.

Lukianova, N. A., & Fell, E. V. (2015). Meaning making in communication processes: The role of a human agency. *Procedia - Social and Behavioral Sciences*, *200*, 614–617. https://doi.org/10.1016 /j.sbspro.2015.08.047

Manning, J., & Kunkel, A. (2014). Making meaning of meaning-making research. *Journal of Social and Personal Relationships*, *31*(4), 433–441. https://doi.org/10.1177/0265407514525890

Marchand, M.-A. (n.d.). *Deconstruction and différance*. Jacques Derrida : Deconstruction and différance / Signo - Applied Semiotics Theories.

Retrieved September 30, 2022, from http://www.signosemio.com/
derrida/deconstruction-and-differance.asp

Mundhra, J. (2006). Provoked [Film]. Raj Film Productions.

Purohit, D. J. (2019). Item songs of Bollywood: The politics of gender and
identity and sexual objectification. *International Journal of English
Literature and Social Sciences*, *4*(6), 1842–1844. https://doi.org/
10.22161 /ijels.46.35

Sahu, G. K. (2015). Use and abuse of female body in popular hindi films:
A Semiotic analysis of Item Songs. *International Journal of English
Language, Literature and Humanities*, *1*(5), 14-25.

Sebeok, T. A. (2001). *Signs: An introduction to semiotics*. University of
Toronto Press.

Strinati, D. (2004). *An introduction to theories of popular culture*.
Routledge.

Woodward, K. A. T. H. (2012). *Short guide to gender*. Rawat.

Cultural Assimilation and Marital Disgruntlement in Manju Kapur's *The Immigrant*

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Abstract

The present study views Manju Kapur's The Immigrant from the perspective of cultural assimilation and its impacts on the cognitive thinking and perception of the individuals as our thought processes inescapably are framed by our socio-cultural backgrounds. The study also deals with the marital relationship of Nina and Ananda which is affected by sexual inadequacies of Ananda and also by the culturally constructed sexual orientations. The major characters of the novel are Nina and Ananda, Indian born Canadians. Multiple challenges are already waiting for them when they emigrate from India to Canada. In Canada, they have to confront various problems regarding different dressing styles, food habits, and identities. They feel highly nostalgic, alienated and a sense of melancholy at times overwhelms them. They are sandwiched between the culture of their motherland and expatriate culture because they are incapable of abandoning their own home culture and adopting a novel expatriate culture properly. They decide to choose the process of cultural assimilation as a way through which they can strike a balance between the two cultures. But this cultural assimilation further appropriates the horizons of their mental cognition and turns the tables for them when it becomes the lord of their thought processes in a manner that the things which used to be strong taboos for them in Indian culture now became an exceedingly ordinary concept. They very consciously break down these taboos, but at times they also lament doing so. The inevitable collapse of their marriage could be seen as a repercussion of their culturally modified mind sets, as in Indian culture there is no room for the explicit expression of female sexuality because of the rampant propagation of hegemonic masculinity, while in Canada things were exceptionally different for both

of them. Hence, Ananda and Nina undoubtedly oscillate between the two
cultures. So, in this paper, the undivided attention is to bring into light the
immense control that culture has over the cognitive processes of the
individuals via the adoption of the process of cultural assimilation and the
indelible impacts that it has on the marital relationship of Nina and
Ananda.

Keywords- Culture, Cultural Assimilation, Immigration, Diaspora,
Hegemonic Masculinity, Marital dissatisfaction

Introduction

As defined by the International Organization for Migration, 2015,
'Migration' is the movement of a person or a group of persons, either
across an international border or within a state. The term 'immigration'
was coined in the 17th century for the movement of people between the
emerging nation states. In other words, it refers to the process of living in
a foreign country permanently. It indicates the shift from the native
country to the non-native country. In the contemporary era, immigration is
very much prevalent and people are migrating from one place to another in
order to live a better life and to have a secure future which becomes
possible only due to globalization.

This globalization and compression of space and time gave birth to the
cosmopolitan perspectives. Cosmopolitanism is a symbol of liberalism and
acceptance which romanticizes the whole idea of differences. It is
remarkably splendid, large, dynamic, beautiful and interactive in its
nature. It leads people to expand their identifications and belongings
beyond the borders of a nation. Beck argues that cosmopolitanism allows
seeing of not just others but also oneself in new ways, concerning
individuals and groups in novel ways. It is open to change and to adopt the
new identity, culture and values. On the other hand, diasporic
cosmopolitanism can be seen as an oxymoron because the diasporic
communities are generally more attached to their own cultures, values and

identities, they also reject the notion of being open to new ways of life. There is always a conflict going on in their minds regarding the culture, which they belong to and the culture, which they are adopting for their workplace. Diogenes the Cynic, refused to define himself by the local origins and birth place, he says, "I am a citizen of the world." From this he meant to be the universal being and belonged to the universal culture. The Stoics argued that, to be a citizen of the world means that we are surrounded by a series of concerned areas. One should not limit oneself to a specific region, rather should try to open up to the multiple regions. As world citizens, our task would be to draw the circles somehow towards the center.

Stuart Hall in his essay "Cultural Identity and Diaspora", talks about the formation of a cultural identity. It is a matter of "becoming as well as of being" for him. It is not which is already established but it undergoes constant changes. In his essay he defines cultural identity in the sense of oneness or similarity and second, he defines it in terms of differences. He also defines cultural identities as the names we give to the different ways we are positioned by, and position ourselves within, the narratives of the past.

The process of migration also leads to cultural change. The terminologies used for the cultural change are cultural selection, cultural mixing, cultural dissemination, cultural assimilation and cultural remittance. Out of these five processes, this paper solely focuses upon cultural assimilation.

The word 'culture' includes all ways of life such as arts, beliefs and institutions of a population that are passed down from one generation to the next generation. It also includes the codes of manners, dress, language, religion and rituals. Raymond Williams defines culture "as the ordinary way of life." His definition proposes that culture is a system by which meanings and ideas are expressed, not only in 'art and learning', but also in 'ordinary behavior'. Culture includes "shared elements that provide

standards for perceiving, believing, evaluating, communicating, and acting among those who share a language, a historical period, and a geographical location" (Shavitt et al., p.1103). The word culture "is a stand-in for a similarly untidy and expansive set of material and symbolic concepts that give form and direction to behavior [and that] culture is located in the world, in patterns of ideas, practices, institutions, products, and artifacts" (Markus & Kitayama, 1991, p.422).

The word 'assimilation' is mostly associated with the immigrant people who came across a new land and a new culture for the betterment of their new lives. It refers to mixing up in another culture, which is not native. It is a way through which different cultural groups tend to overcome the differences. Cultural assimilation is the process of adopting the values, behaviors, beliefs and culture of a dominant group. The immigrants adopt the culture of the host country to look alike them. They try to imitate them in things like dressing style, language, food habits and values. According to Eisenstadt, cultural assimilation consists of the adoption of those values, norms, patterns of behavior and expectations without which a person is incapable of functioning with minimum effectiveness in a society.

Homi K. Bhabha states that this assimilation of cultural practices can be seen as a positive, enriching and dynamic process. His concept of 'Hybridity' discussed in his work *The Location of Culture* refers to the mingling of cultural practices and signs. It refers to the cultural amalgamation or cultural mixing to depict that there is no pure culture. This process of adopting and adapting the dominant culture leads to 'Mimicry'. According to Bhabha, colonial mimicry is the desire for a reformed recognizable 'Other', as a subject of difference that is almost the same, but not quite which is to say, that the discourse of mimicry is constructed around an ambivalence, in order to be effective, mimicry must continuously produce its slippage, its excesses and its differences.

In the similar fashion, when the immigrants start to adopt the culture of the alien land they begin by copying the foreigners and this process of imitation leads to the mimicry of their culture. Triandis argues that cultures are gradually changing as a result of acculturation and eastern exposure to western media. Further, this process of cultural assimilation captures the thought processes of the individuals and affects the perception and cognition of human minds. It changes our way of perceiving ourselves and others. "Culture shapes the way people perceive themselves and others, as well as the relationship between the two" (Markus & Kitayama, 1991; Triandis, 1989). It is considered that the changes in the culture bring important differences in the functioning of the self as well as in the psychological processes of the people. Culture and self both are dynamic in nature and also mutually interdependent. Changes in the cultural practices, ideas, values, norms and surrounding environment must bring changes in the self of the individuals. In the same way, individuals by changing their actions, feelings can bring changes in the socio-cultural forms because an individual's self is constituted by the socio-cultural practices and situations. Therefore, it could be said that 'Self' and psychological functioning is shaped by socio-cultural.

"People in western cultures hold a dominant independent self-construal which involves a conception of the self as an autonomous, independent person" (Markus & Kitayama, 1991, p.226). For instance, when britishers came to India, they tried to dominate the country not by force but by consent (Antonio Gramsci's concept of Hegemony discussed in his work *Prison Notebook*).They captured the culture of the native people as Macaulay in his famous "Minute of 1835" discarded all Arabic and Sanskrit literature as barbaric and insufficient. They did this via different methods, one of which was introducing the English language in India. Gauri Viswanathan in her work *The Masks of Conquest* highlights this process by showing the introduction of English language or culture in India to capture the thought processes of Indian people, to continue their

rule in India for a long time. Ngugi also in his work *Decolonising the Mind* states that language carries the culture. In short, it can be concluded that culture constitutes the self i.e. perception, thought process and psychological behavior.

The other aspect that this paper deals with is the theme of 'marital disgruntlement', which discusses the emotional imbalance that the couple has to suffer due to some physical inadequacies and lack of support and conversation. This issue generally arises when the partners do not understand the emotions and feelings of one another. Marriage is a cultural institution. Edward Westermarck in his well known book *The History of Human Marriage (1891)* defines marriage as a more or less durable connection between male and female, lasting beyond the mere act of propagation till after the birth of offspring. This concept of marriage is deeply rooted in the sphere of culture which in turn offers distinct roles to all the genders.

Gender roles play a significant role in the marital relationships. In the Indian context, gender roles determine man as an authoritative, strong, bold, courageous, assertive and all powerful figure. On the other hand, a woman is expected to be polite, passive, powerless, vulnerable, domestic, caring, and submissive. The practice that legitimizes the so called superior position of men in society is known as 'hegemonic masculinity'. Thought processes and the perceptions of individuals regarding the sexual orientation are a result of their cultural and religious backgrounds. Culture trains the people to make compromises in their marriages. Divorce or collapse of a marital relationship is seen as a stigma or a blot not only on your character but also on your family for the rest of your life, which you possibly could not do away with. Though it is seen as a flaw by the society but the fact that it opens up the door to freedom after witnessing the unpleasant marital relationship cannot be ignored.

So, in order to study the process of cultural assimilation and its impacts on the self, I choose Manju Kapur's novel *The Immigrant.* In this study, I also discuss the changes that the two major characters Ananda and Nina undergo in broad terms of their identities, food habits, dressing sense, values, morals and norms and also the impacts of these changes on their behaviors and their ways of perceiving the world. I also highlight their process of gradually adapting to the new culture and values and the possible causes that led to disintegration of their marriage.

Research Questions

How culture appropriates the fertile lands of our cognitive thinking? Does the culture have an impact on the marital relationship of Nina and Ananda? How does culture eventually lead to the changes in the identities of the individuals?

Research Objectives

The sole purpose of this paper is to identify the impacts of culture on the workings of the human mind. It also highlights the gradual process of cultural assimilation and how this assimilation results in changing the identities of the individuals. It finds out how cultural differences give birth to several conflicts in mind and how it becomes a serious challenge to strike a balance between the two. It also delves into the realm of the married life of Ananda and Nina to know the strains or gaps in their relationship.

Methodology

For this specific study, I have adopted the analytical approach to closely analyze Manju Kapur's novel *The Immigrant* with the objective of showing the impacts of culture on the individual's thought process. The chosen text is relevant to the contemporary era of globalization in which people are migrating from one place to another.

Analysis

Manju Kapur describing herself as a writer said, "I am not a didactic writer, I am a mirror of society kind of writer, okay, this is what I see." She is an Indian writer and novelist who wrote about real life conditions. Her major works are *Difficult Daughters (1998), A Married Woman (2002), Home (2006) and The Immigrant (2008).* Manju Kapur, in her novels, shows the journey of a woman from powerless to powerful and dependent to independent. The major themes of her works are feminism, gender issues and diaspora. Her fourth novel *The Immigrant (2008)* is set in the1970s at the time of Indira Gandhi's emergency. As the title suggests, it deals with the migration of people from one country to another after the changes done by the US and Canada in the migration strategies for Asians. This novel was shortlisted for the India Plaza Golden Quill Award and DSC prize of South Asian Literature in 2010.

The novel opens with a detailed description of the protagonist, Nina, a thirty years old spinster who lives in New Delhi with her mother who is always worried about her marriage. She is a lecturer of English in a college. There is another major character named Ananda, who after the death of his parents went to Canada to visit his uncle and now he works as a dentist in Canada. Ananda initially feels alienated in his uncle's house. But with the passage of time, he learnt to live and manage his life in a new place. He starts adopting the western culture in the sense of dressing, food habits and also starts making connections with other people. His first encounter with a Canadian girl, Sue who provokes him for the physical relation, leaves an indelible impact on his psyche. Then, he decides to marry a girl from his homeland. He marries Nina and starts a new marital life in Canada. Nina, after shifting from India to Canada after her marriage also feels alienated, lonely and frustrated. In the beginning she had to make relentless efforts to cope with the new culture. She is sandwiched between her own culture and the culture of Canada. One day, Ananda

takes Nina to his uncle's house, to make her feel comfortable. Here, his uncle humiliates Nina for her traditional dressing sense, like wearing sari and traditional jewellery. She then decides to undergo a process of metamorphosis through which she would be radically transformed and she starts wearing western clothes like jeans, T-shirts and also joins a two year library science course.

Nina and Ananda both fail to treasure their married life. Ananda even fails to fulfill the physical desires of Nina. He never tries to sort out the problems of their marital relationship as he keeps on enjoying his extra marital relationship with Mandy. The same thing is followed by Nina as she also enjoys her relationship with Anton. They both indulge into extra marital relations. Nina later, decides to come out of this relation, but she is raped by Anton. Here, Nina experiences the toughest phase of her life. After that the death of her mother had also ripped her soul harshly. She is torn asunder after these experiences. She visits India and encounters the rituals and moral values of Indian culture which leave an indelible imprint on her mind. She feels having an extra marital affair is not a part of her values and culture and she decides not to commit this sin of being in relation with other man again. But, when she comes back from India, she gets to know about Ananda's relationship with Mandy. Then, she gives up on her marriage with him and decides to moves away from this hollow relationship in search of a new life, new friends, new people and new place.

The concern of present study is to illuminate the process of cultural assimilation through the characters of Nina and Ananda. In the beginning of the novel, Ananda goes to Canada (Halifax) at his uncle's house after the death of his parents. Here, he gradually starts adopting the culture of foreign land. He belongs to the Hindu family and has been surrounded by the rituals of his caste and religion. So, firstly, he has to encounter the problem of dealing with the food habits. Being from a traditional Hindu

family, he avoids eating non vegetarian food and believes that it is a sin to eat the non-vegetarian food. As Manju Kapur (2008) writes, "A Brahmin like himself, but only marginally connected to vegetables. How long could one hang on to caste taboos, for whom and for what?" (p.32). But after coming in contact with the foreign culture, Ananda says, "The cows there are sacred, but maybe I will commit no sin if I eat the cows here. Let's see how long it takes me" (p.33). So, he leaves behind his religious traditions and starts eating the non-vegetarian food which undoubtedly shows the influence of expatriate culture on the mind set of an individual. And in order to justify this, he says, "When in Rome, do as Romans do" (p.33). When he tries fish for the first time he asks for his mother's forgiveness and feels liberated. This shows that he is not yet wholeheartedly adapted to the culture of foreign land but is sandwiched between the culture of his motherland and the culture of foreign land.

The writer also highlights the impacts of western culture on the names of the individuals. When Ananda comes in contact with the western culture, he feels the dire need to give a westernized version to his name, so Ananda becomes Andy. Manju Kapur (2008) states in her novel, "Andy is not my real name. My Indian name is Ananda. Means happiness" (p.48). Not only was the name westernized but there was also the westernization of Indian culture. Manju Kapur throws light on the westernized version of Indian culture by showing the India club in Halifax, Canada. It is a place where Indians celebrate the festivals like Diwali and Holi. These festivals are not celebrated in the pristine Indian form, but they are here a product of hybrid culture. As proposed by Homi K. Bhabha, the word 'hybrid' refers to the mingling of cultural practices and signs. As Manju Kapur (2008) writes "Hybrid Diwali", it shows the hypocrisy of the Indian people who want to look like the westerners the whole year, but on the day of festivals, they dress up like Indians, "...Indian for a day and western for the remaining year" (p.28). On the day of the festival, they adopted their Indian culture on which Kapur (2008) comments "... he was dressing his

women up in saris and devouring vegetarian food for Diwali" (p.28). Sankaran Ravindran (2004) rightly observes about these Indians, "Indian abroad are not just people abroad. They are bundles of attitudes, convictions, anxieties, shared nations, fears and anticipations, all of which are found in their very texture."

The novel also unravels the cosmopolitan perspective as proposed by Martha C. Nussbaum in her work *For Love of Country?* Dr. Sharma said to Ananda, "Look at me, look at me. I am a citizen of the world" (p.26). So, he goes beyond the boundaries of a specific nation, and expands his identification as the citizen of the world. Stuart Hall in his work "Cultural Identity and Diaspora" states, "Cultural identity is a matter of becoming as well as of being." So, the identity of the individual keeps on changing continuously; it is not a fixed entity. Dr. Sharma in the novel said, "How can they be proud of their ancient heritage if they see nothing of it? Very disappointing and from what I hear the country is practically a dictatorship. One should take the best of one's country and leave" (p.26). It indicates that one should not limit oneself to a single nation but should open up to the other nations as well.

Manju Kapur (2008) also brings up the challenges immigrants have to face when they encounter the foreigners. Ananda's first encounter with a Canadian girl, Sue, had left a remarkable impact on his psyche as he finds himself fixed up with Sue and says "I like the color of your skin" (p.37). She provokes him for the physical relationship but he refuses. At this Sue remarks, "May be you have issues around sex. Here it is no big deal, but in your culture it must be different. Deep down perhaps you are not comfortable" (p.38). This comment made by Sue hints at the idea that sex has got different connotations in different cultures. In Canada, it is no big deal to have relations with someone but in India it is equated to contamination of your body and soul. After that he started abhorring the experience of western women. He felt that his inability to love a white

woman meant he had never left India. This points out that due to his Indian cultural background and its values, he is unable to indulge into this illegitimate task and he stays faithful to the ideals of Indian culture. It shows the impacts of culture on the cognitive thinking of the individual and on the perception of viewing the world around one.

So, this traumatic experience leads Ananda to choose the wife from India. Ananda initially thought negatively, "A wife from India meant the India club, meant socializing with the immigrants, pretending that they had a bond, when really he found their conversation monotonous and boring" (p.46). He keeps on thinking about what is wrong in thinking of a woman from home country. At this time, he recalls his uncle's comment, "If you reject it all, then who are you?" (p.48). It indicates that if one forgets her roots, one will lose her existence. So, he feels better about the need to return to India and Indians. On his demand, his elder sister starts looking for the Indian girl who will be suitable for him. She finally finds Nina who is an educated girl and also of the same age group as Ananda. Alka is very much happy and content with her brother's demand of choosing the bride from Indian background. At this she remarks, "Even though you have taken citizenship, at heart you are still an Indian with Indian values..." (p.55). But Ananda is not ready to accept this remark of Alka and says, "And what did she mean at heart he was an Indian? He was no such thing. He was now a Canadian of Indian origin" (p.55). This shows the psyche of Ananda who wants to detach himself from India and Indian culture. But in reality he is unable to completely detach himself and instead of accepting the truth, he is escaping from reality.

Nina also finds Ananda, as a man full of Indian values and morals. He gives respect not only to Nina but also to her family. Manju Kapur (2008) remarks, "Truly living abroad does not change the Indian in him, old world values, respect for people" (p.69). Ananda accepts Nina as a bride and on the approval of Nina, Ananda experiences a great sense of

achievement. As Kapur (2008) mentions, "The Immigrant man needed a bride who would surround him with familiar tradition…" (p.78). After marriage, Nina has to shift to Canada after some time. She is extremely excited to move towards a new world and to have a new life. But her excitement drains after her horrible experience at the Toronto airport. She was asked various questions by the immigration woman and felt humiliated by this treatment of her. Kapur (2008) depicts her state of mind with such words, "Rage fills her". She is ill treated because of her "wrong color" and her identity as an Indian. She expresses her anger to her husband, Ananda, in a note:

> "This is not your country. You are deceived and you deceived me. You made it out to be a liberal country where everybody loved you. This woman is looking for a reason to get rid of me. I am the wrong color, I come from the wrong place. See me in this airport, of all the passengers the only one not allowed to sail through immigration, made to feel like an illegal alien" (Kapur, 2008, p.108).

Manju Kapur (2008) brings into light the sufferings of the immigrants due to their double consciousness and division of heart between the desire to come into connection with the new culture and values and their love for their motherland and traditional values. The deteriorated condition of the motherland brings a sense of disillusionment and bitterness in the minds of the immigrant people. And this bitterness creates a way through which immigrants adopt and adapt to the foreign culture. To get citizenship is not only a matter of certification to live in a foreign country, but it is a way through which one completely mingles with the culture of others and becomes comfortable with the new stuff. Manju Kapur (2008) writes, "Forget the smells, sights, sounds you were used to, forget them or you will not survive. There is new stuff around, make it your own, you have to" (p.121). Ananda was gradually adopting the western culture and

forgetting Indian culture. When Nina encounters the food habits of Ananda, she shockingly tells him that she thought he was a vegetarian. At this Ananda replies, "At home they think I am. But here I eat what everybody else does, it is simpler and convenient. You too will get used to it" (p.112). It is also an instance of the cultural assimilation that shows how the influence of one culture can change even the food habits.

Ananda calls Nina as "the perfect mix of East and West" (p.85). Kapur (2008) also represents her in the same way, "Her devotion to her mother and her willingness to consider an arranged introduction proved her Indian values, while her tastes, reading, thoughts, manner of speech and lack of sexual inhibition all revealed western influence" (p.85). Despite being the amalgamation of two cultures, she also, like other immigrants, feels lost, alienated, and nostalgic. In order to cope with these challenges, she starts keeping herself busy with reading the books. But it fails to distract her attention, now she feels as if "she is an immigrant for life" (p.122). Dr. Beena Agarwal points out that on one hand the phenomenon of migration has helped to break the barriers of traditions, it has also made the life of Indian women more complex. Indian woman with her traditional moral consciousness and limited professional skills find herself more isolated and insecure.

Manju Kapur (2008) mentions that when the immigrants go to the foreign land, they first change their dressing style because it is the cloth that makes man. Ananda wants Nina to change her traditional dressing sense, but initially she is unable to adopt the western styles. Ananda's uncle humiliated Nina for her traditional dressing sense. And also one day Ananda remarks, "Enough is enough, she had to graduate to western, she acquiesced" (p.150). After that Nina starts adopting the western dressing sense in order to be accessible to the whole world. Initially, she feels uncomfortable, but gradually she becomes habitual of this sense and her discomfort zone turns into the comfort zone. So, she looks like the

foreigners by being adapted to the foreign culture as "assimilation brings approval" (p.153). Kapur (2008) also remarks, "Canada is truly international. They don't believe in narrow boundaries" (p.139).

Further the novel puts light on the notion of 'Black skin and White mask' through the transformation of names. Ananda wants Nina to call him Andy, not Ananda. But Nina feels that Andy is a name for a foreigner, Christian and western being. To call him Andy means to feel the sense of alienation in their home. Kapur (2008) satirically comments, "... Hello Canada, we are married. Now change my name... What assimilation when your body stamped you an outsider?" (p.154). The writer comments that he can change his name to assimilate himself with the foreigners but how can he change the color of his skin which represents him as an Indian by birth. The transformation of clothes and names do not change the origin of the individual.

Both the immigrant characters Nina and Ananda have different psychological frameworks that affect their indulgence into the process of adopting the western culture. Ananda shifts to Canada after the death of his parents, so he in a way advertently wishes to detach himself from India in order to forget the traumatic past of his parents and keep no connection with the memories of the past. So, he quickly adopts the expatriate culture without facing innumerable hurdles and sufferings. As he says, "... he didn't want the familiarity of Indian food so soon after he had left it. He wanted something western and exciting" (p.20). But on the other hand, Nina is too much attached to her motherland, her Indian culture and her mother. This attachment becomes an inescapable challenge for Nina. In this expatriate culture, she feels alienated from her home country as well as from her profession of lecturer. So it is very complicated for her to forget her home culture and to adopt the new one. Her Indian culture and values keep on haunting her in the process of adopting the western culture.

Another important issue of this novel is marital dissatisfaction that could be seen as a resultant of the sexual inadequacies. It is a mesmerizing saga about the complexities of arranged marriage that possibly are created due to the traditional Indian background. Ananda and Nina fail to treasure their marital relationship. They are not enjoying their sexual life which further creates problems for Nina to conceive the baby. Nina is obsessed with the notion of motherhood because in the Indian context, motherhood has a coveted and privileged state. Women justify their existence only by being mothers. "It is women's motherliness that becomes the most important element of their identity formation" (Kakar, p.67). In the text, Nina is also eager to be a mother. Manju Kapur depicts her state of mind as, "Every time she has sex she imagines her egg fertilized, and every time she has her period she wonders whether this is a miscarriage; the bleeding is so plentiful, the pain so intense" (160). On the other hand, Ananda is not interested in this as he was just trying to hide his sexual inadequacies from Nina. As Kapur (2008) writes, "he hadn't realized getting married was such a violation of privacy, and maybe if children are so important to her, she should have suggested a fertility test before the engagement" (p.167).

Due to her inability to conceive the baby, Nina keeps on thinking the reasons why this is happening to her. This may be because they are in a foreign country and facing nostalgia, up rootedness and alienation. This is so much ingrained in her psychology now that she starts feeling rootless, branchless, just a body floating upon the cold surface of this particular piece of Earth. Manju Kapur (2008) states, "her feminine self in question, she could end up hating her body" (p.163). It is clearly represented that the notion of motherhood which is much prevalent in Indian culture dominated the mind of Nina that she starts hating her own body for not becoming a mother. On the other hand, Ananda instead of exposing his own sexual inadequacies to Nina, he taunts Nina as "Are you implying it is my fault we don't have sex more often? Don't you know how much I want it? But while you just sit around and relax at home, I am at the clinic

working hard to make a living" (p.178). Not spending quality time together could be considered another reason for breakdown in their relationship, because Johnson and Anderson (2012) showed that spending time together always brings about a confidence raise in their marriage, which in turn results in marital satisfaction increases. But in this context, Ananda remains busy in his own work and ignores the feelings of Nina, as Kapur (2008) writes "...Ananda had no notion of how she felt" (p.178).

In order to get rid of the anxiety, she tries to distract her attention by watching television and reading books but the guilt of not conceiving the baby keeps on haunting her. Every time, she moves to read about sexual fulfillment. From a magazine and article, she got to know that in a relationship, there should be mutuality, togetherness, shared feelings, desires and fantasies. But to her utter dismay, all these factors are missing in their relationship. For Nina who belongs to the Indian cultural background, expressing her sexuality and speaking openly about her sexual desires is a big taboo. It is only when she comes across a magazine which tells, "Women, do not feel shy, your man needs to know how you feel…" that she realizes the importance of expressing her true feelings in front of her husband. So, after being in contact with the western culture through the magazines, she decides to expose her female sexuality openly to Ananda which was otherwise suppressed due to the Indian cultural values. She also explores her unfulfilled desires. This shows the influence of expatriate culture over the native culture. One day she boldly asks him whether he is satisfied with their sex life or not? Nina expresses her innate feelings to him that she feels extremely lonely, he in return suggests her to start working. At this, Nina advances the sex and tells him, "That is what I want to work at. We should tell each other all our feelings..." (p.181). After seeing such a bold act of Nina, he is left in for a shock and is unable to digest such bold expression of sexuality by an Indian woman. He was very much worried about the thought, "If his wife felt there was something wrong..." (p.182). He doesn't want to expose his sexual shortcomings to

Nina which indicates the stress of 'hegemonic masculinity' on him. The reason behind such mentality of Ananda is his Indian cultural background because in Indian culture men are trained to have a superior position. Women are the victims of the dominance of patriarchy.

To sort out their sexual relationship, Nina suggests him about 'couple therapy'. At this he turns hostile because going for this would bring questions on his masculinity. But Nina suggests him that, "Sex was a form of communication, and if they couldn't communicate on this most basic level, what about everything else?" (p.183). This also points out another factor which affects their relationship which is lack of communication both verbal communication and sexual communication. The hegemonic masculinity has occupied a big space in the psyche of Ananda that he doesn't want Nina to know about his sexual shortcomings that he argued with himself, "... as a husband he did not want his wife to expose her most private moments to a sex therapist? Especially when she didn't have to, the problem was after all his" (p.187). So he secretly decided to go to California for the treatment of his disfigurement.

After getting the treatment, he reveals this secret to Nina who is left bewildered after hearing this and she brings to question herself and her performance. Manju Kapur (2008) expresses her state of mind as "What has she done? Maybe if she knew, she would be able to do the same for him, so that he would not have to lie so much" (p.206). She also keeps on interrogating him about how the sexual therapy works. She couldn't forget the fact that he had lied to her and gone alone. Now she felt used, excluded and angry. He claimed the end justifies the means. She is completely torn asunder due to such actions of her husband. To cover up his mistakes, he goes on to blame Nina for her suspicious and unsupportive nature. "Blame was a power game, a way of making the woman uncertain and confused" (p.216). It is a way to silent the women and to accept the reasons given by her husband without questioning.

Now Ananda starts using the clock at the time of sexual intercourse to examine his sexual performance with Nina. It shows that the element of love is missing in their relationship. For him, it is about performing his masculinity through the sexual act, but Nina found this act to be extremely mechanical and completely devoid of love and passion. It further brings into light the notion of 'Gender Performativity' given by Judith Butler, a feminist philosopher. She says "gender is real only to the extent that it is performed" *(Gender Trouble)*. It means that being born a male or female does not determine the behavior but is learnt by performing in the societal set up. But Nina is awfully annoyed with her husband's habit of looking at the clock. She says angrily, "I don't want to be timed... of course, but like this it becomes mechanical. I don't like that" (p.217).

After being disappointed with her marital relationship she, for the first time, ruminates about herself "I need to find my feet in this country. I can't walk on yours" (p.213). She realizes that her feminist self comes first. So, she decides to take a step forward for her own liberation and for this she joins the course of library science. Being unsatisfied and irritated by each other, they both indulge into the extra marital relationships. Ananda enjoys his relationship with Mandy and Nina enjoys her relationship with Anton. Surprisingly, for the first time, Nina breaks down all the taboos followed by the traditional, devout Hindu by having sex with Anton and eating the flesh. She declares, "After she had had sex with Anton, it seemed especially hypocritical to hang on to vegetables" (p.266). She thinks of herself as "... Her life was now completely her own responsibility, she could blame no one, turn to no one. She felt adult and bereft at the same time" (p.323). Nina is now turned into a different being who pays no heed to any culture, values and morals. This shows that the things which were gigantic taboos for Nina according to the Indian culture, are now just a matter of things in this expatriate culture. This also shows how culture captures the thought processes of the individuals.

At the death of her mother, Nina visits India and encounters the Indian culture, values and morals which leave an indelible imprint on the mind of Nina. She then, realizes her mistake of making an illegitimate relationship with Anton and decides not to commit this sin again. This depicts that what is normal in the western culture now becomes a sin when it is observed through the lens of Indian culture. In the end, her mother dies and also she comes to know about her husband's relation with Mandy. She decides to move away from this frail and one dimensional world to a multidimensional place. At this Manju Kapur (2008) writes:

"When one was reinventing oneself, anywhere could be home. Pull up your shallow roots and move. Find a new place, new friends, a new family. It had been possible once, it would be possible again" (p.330).

Conclusion

To conclude, Manju Kapur very dexterously tackles the themes of cultural assimilation and marital disgruntlement and also illuminates the enormous influence of culture on the cognitive thinking and perception of the people. It vividly portrays the lives of immigrants and problems they face while adopting the expatriate culture and preserving the culture of their own homeland. In the beginning years of immigration, the immigrants resisted the culture of foreign land, but gradually they started mingling with the expatriate people after having the influence of expatriate culture that controlled their thought processes. It is also interwoven with the theme of universalization of identity, that when people migrate, they find themselves attached not to a fixed nation or geographical entity, but to the whole world. It opens up the opportunity for people to be a part of the new world. It also shows the instances of hybrid identity and hybrid culture that resulted from the process of immigration. So, on the one hand, immigration brings separation, but also, on the other hand, it opens the opportunities for meeting new people, and having distinct identities. It analyzes the influence of culture on their identities by showing the

transformation of food habits, and the westernized version of clothes and names. And, another problem discussed in this study is marital dissatisfaction of Ananda and Nina because of cultural imbalance, sexual inadequacy, lack of trust and conversation. So, it could undoubtedly be said that immigration leads to a change of attitude in every immigrant under the influence of an expatriate culture.

References

Abramitzky, R., Bousten, L. P., & Eriksson, K. (2016). Cultural assimilation during the age of mass migration. *National Bureau of Economic Research*.

Agarwal, M. (2012). Manju Kapur's *The Immigrant:* A gynocentric text with diasporic issues. *An International Referred e- Journal of English Studies*, 6 (1), http://impressions.org.in/jan12/guest_maltia.htm, January.

Bajaj, I. (2017). Rethinking cosmopolitanism, multiculturalism and diaspora via the diasporic cosmopolitanism of Europe's Kurds. *European Cosmopolitanism: Colonial Histories and Postcolonial Societies*, 121-135.

Bajaj, N. (2020). From detention to liberation: A diasporic experience in Manju Kapur's *The Immigrant. International referred Bi-annual Research Journal in the disciplines of Arts and Humanities,* 9 (1), 98-102, May- October.

Devi, A. D., & Baskaran, L. (2015). Manju Kapur's *The Immigrant:* The study of dislocation and cultural conflict. *International Journal on Studies in English Language and Literature*, 3 (11), 48-52, November

Kalpana, E. P. (2014). Diasporic sensibility in Manju Kapur's *The Immigrant*. *International Journal of Research in Humanities, Arts and Literature,* 2 (9), 119-124, September.

Kapur, M. (2008). *The Immigrant.* Penguin Random House India.

Kastanakis, N. M., & Voyer, G. B. (2014). The effect of culture on perception and cognition: a conceptual framework. *Journal of Business Research*, 67 (4), 425- 433, March.

Khezri, Z., Hassan, S. A., & Nordin, M.H.M. (2020). Factors affecting marital satisfaction and marital communication among marital women: Literature of review. *International Journal of Academic Research in Business and Social Sciences*, 10 (16), 220-236, November

Kumar, N., & Yadav, U. S. (2020). Alienation and displacement in the novels of Manju Kapur. *Journal of Advances and Scholarly Researches in Allied Education,* 17 (1), 376-381, http://ignited.in/ I/a/304941, April.

Maitra, N., & Dubey, D. (2014). Reinventing oneself: The immigrant dilemma in Manju Kapur's *The Immigrant. International Journal of English Language, Literature and Humanities,* 2(4), 2321-7065, August

Markus, R. H., & Kitayama, S. (1991). Culture and Self: Implications for Cognition, Emotion, and Motivation. *American Psychological Association*, 98 (2), 224-253.

Nussbaum, C. M. (1996). Patriotism and Cosmopolitanism. *For Love of Country?* edited by Joshua Cohen for Boston Review, Beacon Press Books, 2-17.

P. (2018). Manju Kapur's *The Immigrant:* A detailed study from discrimination to identity formation of women in diaspora. *International Journal of Advanced Research and Development,* 3 (1), 655 -657, January

Suresh, M. (2017). Alienation and Displacement in Manju Kapur's *The Immigrant. Pramana Research Journal,* 9 (4), 51-55.

Teraiya, J. Y. (2014). Indian diaspora in Manju Kapur's novel *The Immigrant. Sahityasetu*, 4 (5), September- October.

The role of culture in marriage and divorce. https://www.dipietropllc.com/ blog/2019/april/the-role-of-culture-in-marriage-and-divorce, retrieved in April, 2019.

Public Expenditure on Secondary Education in Northern States, India: An Evaluation (2009-10 to 2017-18)

PALLAVI KHANNA

Abstract

The present study is an attempt to examine various aspects of public expenditure on secondary education by the Northern states of India during the post-reform era i.e. FY 2009-10 to FY 2017-18. The study has been carried out for only seven states, viz., Jammu and Kashmir, Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttarakhand and Uttar Pradesh, except for union territories whose data was not available in the public domain. The study is based on the secondary data taken from different sources. Various measures such as growth over time, expenditure on secondary education in India vis-a-vis the Northern States, and the share of expenditure on secondary education in overall expenditure on education and income in the state have been calculated both at current and constant prices (2011-12). The study also analyses the per-capita public expenditure on secondary education within northern states, and for the northern states as a whole. The result from the analysis has revealed the multiple peculiarities and setbacks of educational spending in the secondary education sector. The study emphasized from the policy option the need for increasing the availability of public resources to the sector in order to expand the region's human capital base.

SECTION-I

Introduction

In the last seven decades since independence, one of the disillusioning features of India's development storyline has been its failure to provide

adequate resources for financing of education. Various educational commissions and committees both before and after independence, such as Wood's Despatch (1854), Hunter Commission (1882), Sargent Committee (1944), Mudaliar Commission (1952), Kothari commission (1964), National Policy on Education (1986), Ghyanshyam Tiwari committee (2005), Rashtriya Madhyamik Shiksha Abhiyan (2009), and Samagra Shiksha Abhiyan (2018), etc., were formed, which often emphasized the importance of public provisioning, including at secondary level, and recommended an norm of at least six per cent of Gross Domestic Product (GDP) on education, which has not been achieved yet.

As per the latest data from the Ministry of Education (erstwhile Ministry of Human Resource Development), India has made significant growth in enrolment at the elementary level, especially after the introduction of the Sarva Shiksha Abhiyan in FY 2001. In 2010-11, the gross enrolment ratio (GER) at the elementary level was around 103.9 per cent (103.3 per cent & 104.5 per cent for girls and boys).[4] Given these developments on the policy front, the government of India implemented the Rashtriya Madhyamik Shiksha Abhiyan in FY 2009-10, with the aim to universalize secondary education in the country.[6] Official statistics report low GER at the secondary level, including for girls and marginalized sections of society. The drop-out rates were found to be very high. For instance, the drop-out rate at the secondary level for males and females was found to be 18.66 per cent and 19.16 per cent, respectively in 2017-18 (U-DISE).[9] Further, the low participation of children in secondary education is also confirmed by other sources of data. For example, the NSS 71st Round (2014) reports that around 25 per cent of children between the age bracket of 15-18 years never enrolled in secondary education.[2] These numbers show that there is an urgent need to expand secondary education in the country and accentuate the urgency of improving public policies and funding for secondary education. Given this background, this study deals with the different aspects of public expenditure on secondary education in northern states of India during the post-RMSA era.

The financing of secondary education in the country has been analyzed in several studies (see, for instance, Rani, 2003; Tilak, 2008; Kundu, 2018; and Jha et al, 2020). Some of the studies have focused in detail only on public expenditure on secondary education in India as a whole. However, there has been a dearth of literature which examines the public expenditure on secondary education in the northern states of the country post-RMSA period. The study is a modest attempt to fill this gap.

To discuss the above in further detail, this paper is divided into five sections. Section I deals with the introduction, including the objectives of the study. Section II highlights the methodology and data sources. Section III is devoted to examining the level of public spending on secondary education in the Northern states in comparison with that of India as a whole. It also examines the inter-state differences in public spending on secondary education across northern states. Section IV discusses the state income, education budget and secondary education budget. Section V analyses the per capita expenditure on secondary education across northern states. Lastly, Section VI brings forth the key conclusions of the study.

SECTION-II

Methodology

The present study relies on the secondary data obtained from Analysis of Budgeted Expenditure on Education, Ministry of Education, Unified District Information on School Education (U-DISE), Census of India (2001 &2011) and Economic Survey, Government of India. The data on current and real values of Net State Domestic Product (NSDPs) for all the concerned states was culled from the website of the Ministry of Statistics and Programme Implementation (MOSPI). The study covered the period of nine financial years, starting from 2009-10 to 2017-18. Selection of the study-period is guided by some solid considerations. The period marks the beginning of the Rashtriya Madhyamik Shiksha Abhiyan (2009), one of the largest and key flagship programme to universalize secondary

education in the country. The period is actually the post-RMSA period for the country. For the analysis, only eight northern states were considered, namely J&K, Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttarakhand and Uttar Pradesh. It should be noted that throughout the study, the term "northern states" refers to only eight states, as indicated above, and the analysis excludes two units, i.e., Delhi and Chandigarh.

Further, the study focuses exclusively on the public financing of secondary education, routed through the education department of the concerned state for developing the education sector. Moreover, the analysis is confined to the revenue account component of public expenditure on secondary education. It should be noted that data sources provide information about public expenditure on education under two headings, viz., revenue and capital account, but due to lack of sufficient data, this category of spending is excluded from the analysis. Data on public spending on secondary education and other variables expressed at current prices were converted into constant prices by using the implicit deflator with FY 2011-10 as the base period. Also, in order to decipher the trends, growth rates have been computed using the semi-log function; lnY=a+b t where ln is the natural log of the dependent variable and t is the time variable for the entire period from 2009-10 to 2017-18.

SECTION-III

Public Expenditure Levels

Table 1 presents the public spending on secondary education by the northern states and by all other states of India, excluding union territories for the period of nine years from 2009-10 to 2017-18 on revenue account at current prices. In the case of all states, the total amount of public expenditure on secondary education was Rs. 51294.02 crore in 2009-10. It went up to Rs.135576.69 crore in 2017-18. For northern states, it inclined from Rs. 14042.60 crore to Rs. 37987.6 crore during the corresponding years. The table 1 also provides the percentage share of public expenditure by northern states in All states, ranging between 24 to 29 per cent. It was

highest during 2017-18 (28.02 per cent) and lowest during 2014-15 (24.55 per cent).

Furthermore, the comparison of all the northern states helps in understanding the behaviour of education spending more precisely, as illustrated in table 2. The level of public expenditure on secondary education during 2017-18 was higher than the level during 2009-10 for all the northern states of India as follows: J&K (3.04 times); Haryana (2.13 times); HP (3.64 times); Punjab (2.71 times); Rajasthan (4.63 times); Uttarakhand (2.10 times); UP (1.63 times) and the Northern States (2.71 times). However it should be marked that secondary education has not witnessed the increased influx of resources year after year. It was the scenario only in case of two states, viz., Himachal Pradesh and Rajasthan, and the remaining five states (J&K, Haryana, Punjab, Uttarakhand, and UP) experienced the squeeze of resources once or twice, during the period from 2009-10 to 2017-18, when spending was lower than the previous year. The number of such tumbles in expenditure was J&K (once); Haryana (once); Punjab (once); Uttarakhand (twice); UP (once) and the Northern States (once). Such events occurred more frequently during the mid of the post-reform era and more particularly since 2012-13. Moreover, the number of such tumbles inclined significantly in every state when the spending is analyzed at constant prices, as shown in Table 3: J&K (thrice); Haryana (twice); HP (once); Punjab (twice); Rajasthan (twice); Uttarakhand (twice); UP (once); and the Northern States (twice). It is noteworthy that the absolute level of expenditure increased only slightly in 2017-18 over 2009-10 at constant prices when compared to current prices for every state, as follows: J&K (1.78 times); Haryana (1.38 times); HP (2.50 times); Punjab (1.89 times); Rajasthan (2.71 times); Uttarakhand (1.49 times); UP (1.04 times) and the Northern States (1.73 times). At constant prices, the respective growth levels were as follows: J&K (8.08 per cent); Haryana (3.78 per cent); HP (9.83 per cent); Punjab (6.84 per cent); Rajasthan (15.11 per cent); Uttarakhand (7.27 per cent); UP (-3.67 per cent) and the Northern States (6.40 per cent). It clearly reveals that in

real terms, the secondary education witnessed not only disparities but also less growth among the states. Moreover, the public expenditure on secondary education in real terms in Uttar Pradesh is experiencing a negative growth during 2009-10 to 2017-18.

Table 1

Secondary Education Spending in India: All states vis-a-vis Northern states (Rs. Crore) (Revenue Account) (Current Prices)

Year	Northern States	All States excluding Union Territories	Percentage share (%)
2009-10	14042.60	51294.02	27.38
2010-11	16451.00	60922.88	27.00
2011-12	19163.23	70510.42	27.18
2012-13	20634.50	77086.45	26.77
2013-14	23751.17	87037.57	27.29
2014-15	23541.10	95880.30	24.55
2015-16	27570.80	105820.64	26.05
2016-17	32778.49	119898.92	27.34
2017-18 (R.E)	37987.60	135576.69	28.02

Source: Analysis of Budgeted Expenditure on Education, Ministry of Education (Various years).
Note: R.E=Revised Estimates.

Table 2
State-Wise Public Spending on Secondary Education in the Northern States, 2009-2017 (Current Prices) (Revenue Account) (Rs. Crore)

Year	J&K	HR	HP	PB	RJ	UK	UP
2009-10	707.03	1557.88	577.56	2208.80	3059.18	1293.53	4638.62
2010-11	836.52	1818.12	842.89	2619.12	3283.16	1292.52	5758.66
2011-12	1080.07	1852.24	874.04	3446.83	3667.42	1542.40	6700.22
2012-13	1166.82	1385.81	1079.34	3928.85	4017.47	1680.75	7375.46
2013-14	1300.43	1562.38	1229.01	4001.48	5102.59	1805.75	8749.53
2014-15	1209.29	2038.05	1317.19	4530.43	6269.01	6250.40	1926.74
2015-16	1936.05	2331.80	1391.86	4492.63	8775.45	2053.35	6589.66
2016-17	2066.57	2834.77	1661.70	4924.46	11985.02	2307.21	6998.76
2017-18 (R.E)	2148.25	3311.28	2102.62	5976.96	14170.07	2717.11	7561.31

Source: Same as Table 1.
Note: J&K=Jammu and Kashmir; HR=Haryana; HP=Himachal Pradesh; RJ= Rajasthan; PB=Punjab; UK=Uttarakhand; UP=Uttar Pradesh.

Table 3
State-Wise Public Spending on Secondary Education in the Northern States (Constant Prices) (Revenue Account) (Rs. Crore)

Year	J&K	HR	HP	PB	RJ	UK	UP	North
2009-10$	904.44	1800.75	657.24	2513.54	3891.29	1490.40	5352.75	16610.41
2010-11$	937.09	1928.88	880.37	2735.59	3731.70	1378.84	6250.47	17842.94
2011-12	1080.07	1852.24	874.04	3446.83	3667.42	1542.40	6700.22	19163.22
2012-13	1076.03	1277.38	1002.97	3703.77	3688.25	1572.88	6777.34	19098.62
2013-14	1151.02	1358.50	1064.42	3593.24	4483.72	1613.47	7423.65	20688.02
2014-15	1002.12	1728.98	1124.28	3983.19	5290.22	5464.17	1576.50	20169.46
2015-16	1585.72	1948.31	1157.78	3785.18	7212.21	1766.22	5170.80	22626.22
2016-17	1633.02	2302.65	1351.21	4047.56	9299.19	1979.59	5427.69	26040.91
2017-18 (R.E)	1607.18	2484.96	1642.78	4738.39	10550.72	2227.83	5562.78	28814.64
Growth Rate(%)	8.08	3.78	9.83	6.84	15.11	7.27	-3.67	6.40

Source: Various issues of Analysis of Budgetary Expenditure on Education, MoE and Ministry of Statistics and Programme Implementation (MOSPI).
$: Data from 2009-10 to 2010-11 is converted into 2011-12 series using splicing technique.

The magnitude of expenditure on secondary education varies significantly across the northern states of India (Table 4). Out of the total public spending on secondary education by northern states, Uttar Pradesh and Rajasthan have shown a fluctuating nature, ranging from the low of 8.18 per cent to the peak of 37.30 per cent. In 2017-18, J&K, Haryana, Uttarkhand and Himachal Pradesh incurred between five to nine per cent of the total public expenditure on secondary education. During 2009-10 to 2012-13, Uttarakhand spent almost 9 per cent of the total public expenditure on secondary education in the northern states. But in 2013-14, its share declined to 5.09 per cent, and went up to 26.55 per cent and stabilized at 7 per cent in the subsequent years. With some year-to-year variations, the proportionate share of Haryana within the northern states fell from around 11 per cent in 2009-10 to just 9 per cent in 2017-18. The

respective share of J&K and Himachal Pradesh were about 6 per cent and 5 per cent with some yearly variations. The share of Punjab ranges between 11 to 20 per cent during the study period. Thus, Uttar Pradesh and Rajasthan constituted the largest proposition and Himachal Pradesh the smallest proportion of overall public spending on secondary education by the Northern states.

Table 4
Share of Northern States in Overall Public Expenditure on Secondary Education (Revenue Account) (Current Prices)

Year	J&K	HR	HP	PB	RJ	UK	UP
2009-10	5.03	11.09	4.11	15.73	21.78	9.21	33.03
2010-11	5.08	11.05	5.12	15.92	19.96	7.86	35.00
2011-12	5.64	9.67	4.56	17.99	19.14	8.05	34.96
2012-13	5.65	6.72	5.23	19.04	19.47	8.15	35.74
2013-14	5.48	4.41	3.47	11.29	14.39	5.09	24.68
2014-15	5.14	8.66	5.60	19.24	26.63	26.55	8.18
2015-16	7.02	8.46	5.05	16.29	31.83	7.45	23.90
2016-17	6.30	8.65	5.07	15.02	36.56	7.04	21.35
2017-18 (B.E)	5.66	8.72	5.54	15.73	37.30	7.15	19.90

Source: Author's own calculations

SECTION IV

Secondary Education Expenditure: State Income and Education Budget

The percentage share of the public expenditure on education in total income has been long considered as the most widely accepted indicator to measure the country's educational development. Therefore, it is important to analyze the public expenditure on secondary education as a percentage of NSDP. The data in Table 5 clearly shows that the total public expenditure on secondary education in northern states has remained less than 1.98 per cent during the study period. Taking a closer inspection at the percentage figure by the state separately, it shows that the percentage

share was maximum for Rajasthan and lowest for Haryana during 2017-18. Furthermore, in the case of Punjab, the proportion continued to remain stable. But the respective share of Uttarakhand and Uttar Pradesh declined significantly from 1.78 per cent and 0.94 per cent in 2009-10 to 1.37 per cent and 0.60 per cent in 2017-18. It also fell down in case of Haryana, from 0.77 per cent to 0.57 per cent during the corresponding years.

Table 5
Share of Public Expenditure on Secondary Education as Percentage of NSDPs by the Northern States (Revenue Account) (Current Prices)

Year	J&K	HR	HP	PB	RJ	UK	UP	North
2009-10	1.50	0.77	1.26	1.19	1.24	1.78	0.94	1.09
2010-11	1.47	0.77	1.56	1.23	1.03	1.49	1.02	1.08
2011-12	1.61	0.68	1.44	1.44	0.93	1.51	1.04	1.08
2012-13	1.60	0.44	1.55	1.47	0.90	1.44	1.01	1.02
2013-14	1.63	0.43	1.53	1.34	1.03	1.37	1.05	1.04
2014-15	1.49	0.52	1.51	1.43	1.14	4.35	0.22	0.95
2015-16	1.97	0.52	1.44	1.28	1.44	1.30	0.65	1.00
2016-17	1.98	0.56	1.53	1.28	1.76	1.32	0.61	1.05
2017-18 (B.E)	1.84	0.57	1.76	1.41	1.90	1.37	0.60	1.10

Source: Same as Table 3 and Author's own calculations

The priority accorded to secondary education by the northern states can be determined by examining the share of the secondary education budget in the overall education budget. From Table 6, it is clear that the northern states as a whole incurred spent 30 per cent to 50 per cent of their total public expenditure on education to the secondary education. But the percentage share has declined from 35.15 per cent in 2009-10 to 31.37 per cent in 2016-17. Further, the inter-state analysis reveals that Haryana has provided the lowest proportion, hovering between 20 and 32 per cent and Punjab the highest, between 50 and 70 per cent. But it should be marked that the percentage share of spending on secondary education during the study period registered a decline only in the case of three states, i.e.,

Haryana, Punjab, and Uttar Pradesh. The decline is more pronounced in the case of Uttar Pradesh, where it was 14.26 percentage points lower in 2017-18 than in 2009-10. Thus, it is clear from the above analysis that secondary education has not only received decreased funding, but also witnessed the diversion of resources to other educational sub-sectors.

Table 6
Northern States' Public Expenditure on Secondary Education as Percentage of the Total Public Expenditure on Education

Year	J&K	HR	HP	PB	RJ	UK	UP	North
2009-10	43.14	28.93	30.90	62.61	33.71	44.42	29.83	35.15
2010-11	42.57	31.51	32.88	65.93	32.86	41.37	31.25	35.91
2011-12	43.41	29.90	32.86	67.45	32.29	46.77	27.58	34.59
2012-13	42.55	20.11	33.03	60.70	31.60	46.57	28.42	33.48
2013-14	43.78	21.59	33.79	63.63	34.06	47.10	31.24	44.42
2014-15	44.53	24.10	34.54	61.34	32.63	21.68	49.04	31.24
2015-16	30.77	26.05	37.00	54.93	42.04	47.64	18.35	49.27
2016-17	44.85	28.18	38.31	57.04	49.38	49.94	16.65	31.37
2017-18 (R.E)	41.70	28.77	64.04	57.11	60.77	49.68	15.57	35.25

Source: Same as Table 1

SECTION V

Per Capita Expenditure

The importance given to secondary education by northern states becomes very clear by examining the funds allocated to secondary education on per capita basis at both current and constant prices as given in Table 7 and Table 8. The per capita public expenditure on secondary education has been calculated by dividing the overall government expenditure on secondary education of a state by its population between the age bracket of 15 and 18 years. Per capita expenditure at current prices in the case of northern states as a whole has inclined by 2.18 times, from Rs. 6048.42 crore in 2011-12 to Rs. 13203.62 crore in 2017-18. At constant prices, the

incline was 1.65 times, i.e., from Rs. 6048.42 crore in 2011-12 to Rs. 9955.27 crore in 2017-18. Considering the Northern states individually, the degree of secondary education expenditure varies significantly. At current prices, in FY 2011-12, the largest amount of per capita expenditure on secondary education was spent by Uttarakhand (Rs. 17349.83 crore), followed by HP (Rs. 17071.09 crore), Punjab (Rs. 16818.40 crore), J&K (Rs. 10609.72 crore), Haryana (Rs. 8700.05 crore), Rajasthan (Rs. 6005.27 crore) and UP (Rs. 3554.68 crore). Further, during FY 2017-18, per capita spending was highest in Rajasthan (Rs. 54567.43 crore), Himachal Pradesh (Rs. 42980.78 crore), Uttarakhand (Rs. 30897.32 crore), followed by Punjab (Rs. 29736.12 crore), J&K (Rs. 19604.40 crore), Haryana (Rs.15711.14 crore) and Uttar Pradesh (Rs. 3859.43 crore).

The juxtaposition of spending on per capita basis reveals that the relative ranking of the northern states remained the same during the study period for two states, i.e., Himachal Pradesh and Uttar Pradesh, at second and seventh position, but witnessed a change for Punjab, Uttarakhand, Rajasthan, J&K and Haryana. Interestingly, the rank of Himachal Pradesh has inclined from seventh position to first position, while that of Haryana has gone down from fifth to sixth position. Further, the level of per capita expenditure at current prices during 2017-18 was higher than that of 2011-12 in case of every state (Table 5): J&K (1.85 times), Haryana (1.81 times), HP (2.52 times), Punjab (1.88 times), Rajasthan (9.09 times), Uttarakhand (1.78 times) and UP (1.09 times). Table 8 also reports the rate of growth of per capita public expenditure on secondary education by the Northern States. At constant prices (2011-12), the respective growth levels were as follows: J&K (7.37 per cent), Haryana (9.16 per cent), HP (10.43 per cent), Punjab (5.71 per cent), Rajasthan (32.91 per cent), Uttarakhand (6.18 per cent) and UP (-5.51 per cent). Thus, growth levels turned out to be relatively low at constant prices.

Table 7

Per Capita Spending on Secondary Education in the Northern States (Current prices) (Revenue Account) (Rs. Crore)

Year	J&K	HR	HP	PB	RJ	UK	UP	North
2009-10								
2010-11	-Population data by age group not available -							
2011-12	10609.72	8700.05	17071.09	15818.40	6005.27	17349.83	3554.68	6048.42
2012-13	11304.20	6511.65	21221.79	18255.04	6515.52	18893.32	3870.37	6461.81
2013-14	12427.66	7344.08	24327.20	18826.95	8196.93	20284.77	4542.05	7380.04
2014-15	11401.94	9583.61	26249.30	21587.87	9976.15	70166.14	989.56	7258.38
2015-16	18013.12	10969.05	27926.57	21684.67	13834.86	23035.11	3348.78	8435.82
2016-17	18976.77	13340.09	33569.70	24080.49	18720.74	25865.58	3519.62	9953.08
2017-18 (R.E)	19604.40	15711.14	42980.78	29736.12	54567.43	30897.32	3859.43	13203.62

Source: Same as Table 1, Census of India (2011) and Author's own calculations

Table 8

Per Capita Expenditure on Secondary Education in the Northern States (Constant prices) (Revenue Account) (Rs. Crore)

Year	J&K	HR	HP	PB	RJ	UK	UP	North
2009-10								
2010-11	-Population data not available-							
2011-12	10609.72	8700.05	17071.09	15818.40	6005.27	17349.83	3554.68	6048.42
2012-13	10424.60	6002.14	19720.13	17209.22	5981.59	17680.70	3556.50	5969.16
2013-14	10999.81	6385.71	21069.26	16906.20	7202.76	18124.78	3853.76	6415.75
2014-15	9448.60	8130.25	22404.99	18980.24	8418.56	61340.05	809.68	6107.63
2015-16	14753.66	9165.07	23229.99	18270.00	11370.35	19813.95	2627.73	6879.96
2016-17	14995.59	10836.02	27297.16	19792.47	14525.44	22192.71	2729.54	7900.74
2017-18 (R.E)	14666.70	11790.45	33580.98	23574.06	40629.70	25333.48	2839.34	9955.27
Growth Rate(%)	7.37	9.16	10.43	5.71	32.91	6.18	-5.51	7.89

Source: Same as Table 3, Census of India (2011) and Author's own calculations.

SECTION VI

Conclusion

In this paper, an attempt is made to examine the public spending on secondary education in the northern states. Recent data showed that northern states as a whole accounted between 24 per cent to 29 per cent expenditure on secondary education during 2009-10 to 2017-18. The level of public expenditure on secondary education during 2017-18 was higher than the level during 2009-10 for all the northern states of India, but it had not seen the increased influx of resources for each and every year. However, the growth of public expenditure, at constant prices, has been low and fluctuating, as discussed above in section 3. Further, the trends and patterns relating to the percentage share of different states in overall expenditure on secondary education by northern states reveal that the highest proportion was incurred by Uttar Pradesh and Rajasthan and the lowest by Himachal Pradesh. The paper has also explored the public expenditure on secondary education as a proportion of the overall state budget expenditure. Importantly, the quantum of expenditure has registered a decline in the case of only three states, i.e., Haryana, Punjab, and Uttar Pradesh. The decline is more pronounced in the case of Uttar Pradesh, where the decline was to the extent of 14.26 percentage points lower in 2017-18 than in 2009-10. On per capita basis, public spending on secondary education by the northern states as a whole, at current and constant prices, is inclined by 2.18 per cent and 1.65 per cent respectively. During 2011-10, the largest per capita expenditure on secondary education at current prices was incurred by Uttarakhand (Rs. 17349.83 crore) and the lowest by Uttar Pradesh (Rs. 3554.68 crore). But during 2017-18, the largest was incurred by Rajasthan (Rs. 54567.43 crore). Further, the analysis reveals that the rate of growth of per capita spending was highest in Rajasthan (32.91 per cent) and lowest in Punjab (5.71 per cent). The

growth rates in the remaining states were as follows: J&K (7.37 per cent), HP (10.43 per cent), UP (-5.51 per cent), Haryana (9.16 per cent) and Uttarakhand (6.81 per cent). But it is to be noted that Uttar Pradesh has experienced a negative growth rate at constant prices during 2009-10 to 2017-18.

Thus, the study of northern states of India depicts that in terms of budgetary allocations, the secondary education sector has encountered major challenges post-reform era.

Acknowledgments

References

Analysis of Budgeted Expenditure on Education. (2009 to 2017). Ministry of Education. https://www.education.gov.in/en/statistics-new?shs_term_node_tid_depth=387

Census of India Website: Office of the Registrar General & Census Commissioner, India. (2001&2011).Ministry of Home Affairs, Government of India. https://censusindia.gov.in/

Data | Ministry of Statistics and Program Implementation. (1999). Government of India. http://mospi.nic.in/data

Eighteen Essays on Secondary Education - A Compendium of Insights and Ideas about the State of Education in India. (2018). Narotam Sekhsaria Foundation.

Major Initiatives | Government of India, Ministry of Education. https://www.education.gov.in/en

Rashtriya Madhyamik Shiksha Abhiyan (RMSA). (2009). Government of India, Ministry of Education. https://www.education.gov.in/ hi/rmsa

Tilak, J. B. G. (2020). *Universal Secondary Education in India: Issues, Challenges and Prospects* (1st ed. 2020). Springer. https://doi.org/10.1007/978-981-15-5366-0_17

Tilak, J. B. G. (2008). *Financing of Secondary Education in India: Grants-in-Aids Policies and Practices in States*. Shipra Publications.

UDISE-Secondary. (2012). Department of School Education & Literacy, Ministry of Education. http://udise.schooleduinfo.in/ dashboard/ Secondary#/

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