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Trend and Patterns of Female Work Participation by Education in Indian Himalayan Region

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ABSTRACT:

Work participation is an important exponent to understand the socio-economic development of various sections of the population of a country. There has been unanimousness that women's works are not properly recognized because of an inappropriate definition of work and scheme of evaluation has made women's work invisible in a true sense. The paper intends to study the pattern of the female work participation rate in the Indian Himalayan region (IHR) and bring out the reasons behind such a variation with other states. The state Himachal Pradesh has the highest (44.82%) Female Work Participation Rate whereas Jammu and Kashmir rank lowest (19.11%) in 2011 census. In this study, Female literacy rate has been used as an indicator of women education to correlate with the participation rate of women in economic activities i.e. Female Work Participation Rate (FWPR). It can be said that no orderly relationship has been found between the two variables with low literacy among females and high WPR. Though the paper finds a paradoxical situation that in other developed states of India where female literacy rate is comparatively higher than the states of IHR, Female WPR is relatively lower in those states.

KEYWORDS: FWPR, female literacy, Indian Himalayan Region, gender composition.

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INTRODUCTION:

In the twenty-first century, women empowerment got more emphasis by experiencing lots of historical movement in human history. Every corner of the World arose with the slogan of equality and justice, women empowerment, and women autonomy. On the other hand globally each year the contrasting gap between poor and rich, male and female are being experienced widely in terms of all social, economic and political indicators. According to ILO report (2009-2010), India is ranked 120th out of 131 countries in term of female labor force participation. The economic contribution of Indian women is less than half the global average at 17% of GDP. Even the countries like Pakistan, Bangladesh, and Sri Lanka recorded increase in Female Work Participation Rate (FWPR) in recent years but in India, it is very low as compared to many western countries since earlier period and till date. As we know that females played a crucial role in the extended family labor force in agrarian society which is unnoticed in many cases. Though Female population in India shares nearly half of the Indian population but Work Participation Rate (WPR) among women is only 25.53 percent. Even the FWPR in India and few States of India are much lower than many African countries. Unconsciously it explains the conditions of women in India. Data on women WPR in the last two decades in India showed that women of India are passing through quite pathetic and deplorable situations. After several modifications finally, in the 1961 census, economic data were collected on the basis of work i.e. the population divided into two classes, 'Workers' and 'Non-workers'. Since 1971, 'Census of India' defines a worker as "a person whose main activity is participation in any economically productive work by his physical or mental activity". The Census also explained that "A man or woman who is engaged primarily in household duties such as cooking for own households should not be treated as a worker". In 2001 census data revealed that around 25.63 percent of the Indian women worked as either main or marginal workers to the total women in India. But in 2011 census, FWPR recorded only 25.51 percent which showed the negative tendency of FWPR i.e. (-0.44 percent) over the 2001 to 2011 census. It also reveals the dependency of 75 percent of women on males for their sustenance or livelihoods. Thus FWPR analysis in IHR is more significant to pay more attention in this context. Education is a pre-requisite for the overall development of women and to make them feel that they also constitute an integral part of society. It is often nourished the idea that education promotes women empowerment which makes them aware of their rights, and makes them able to take part freely in social interactions. Many theories regarding human capital would suggest that getting more education, women would acquire greater skills and their earnings increase, resulting in higher workforce participation. However, it has been long known that in India, there has been a U-shaped relationship of women's education with labor force participation.

The paper discusses the spread of education and the extent of the female work participation rate in Indian Himalayan Region states. Also explores that Indian Himalayan Region differs from rest of India in respect of female literacy level (an indicator of education) and their extent of work participation measured by Female Work Participation Rate (FWPR).

OBJECTIVES:

The main objectives of the following study are,

- To analyze the temporal patterns of women's work participation in Indian Himalayan Region.
- To understand the linkage between education and work participation rate in the region.

MATERIALS AND METHODS:

The present study is mainly based on secondary data collected from the census of India from 1971 to 2011. Census of India is the key source of information on the economic tables provided in the B series. Information on economic activities is also collected from the primary census abstract (PCA) for both the time periods. Data has been collected tabulated, classified, presented, compared and interpreted with help of various appropriate statistical representation methods like Tables, Diagrams and Maps. Those pictorial expressions have used at appropriate place and their interpretation has realized the present study.

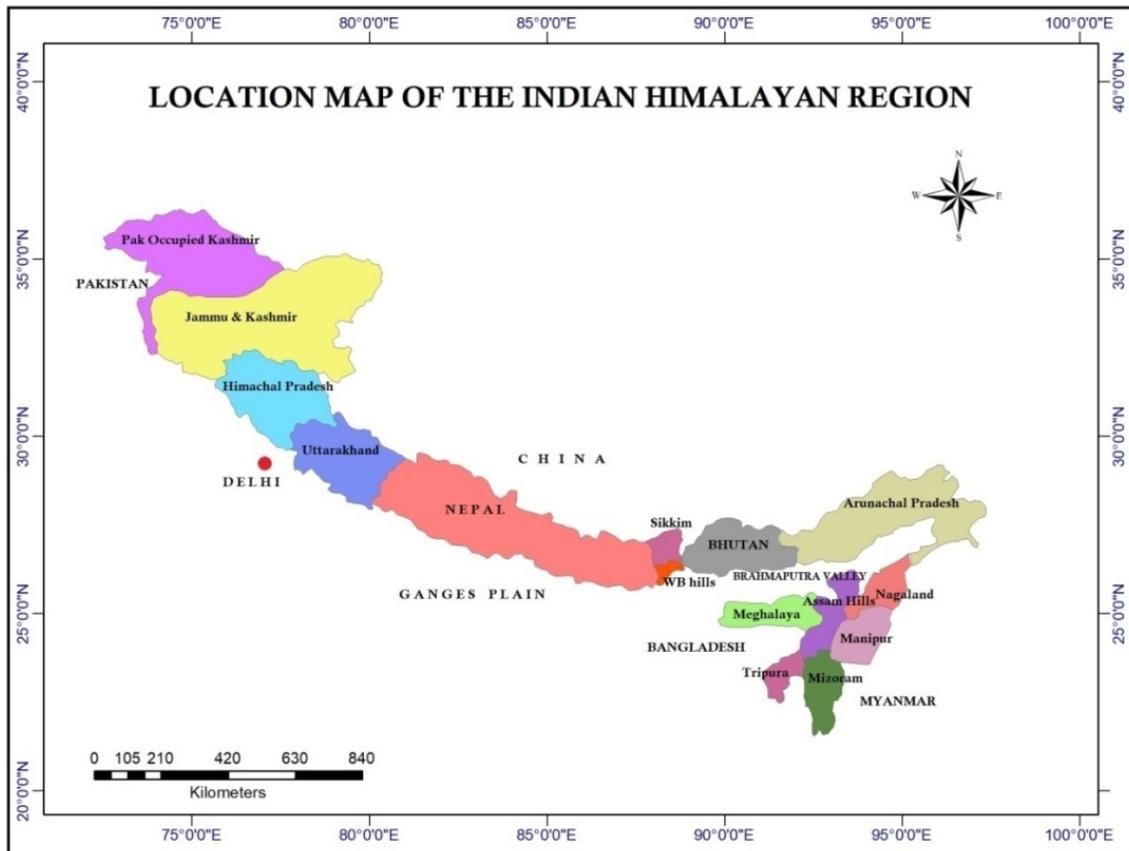
Female work participation rates are calculated for India and Indian Himalayan Region States also the total and rural and urban residential settings to see the current trend between the period 2001 & 2011 in the changing roles of women in the workforce. The formula to calculate FWPR has been given below.

$$\text{FWPR} = \text{Total female workers} / \text{Total female population} \times 100$$

INDIAN HIMALAYAN REGION (IHR): A PROFILE

The Himalayan region is situated in the south Asian countries, extended between 21° 57'–37° 5' N and 72° 40'– 97° 25' E and stretches about 250-300 km. One of the world's highest, youngest and new folded mountain systems is extending its length about 2400 km. Some of the major countries like Pakistan, India, Nepal, and Bhutan that fall under the Himalaya. Meanwhile, this study is confined only in Indian Himalayan Region, which is consisting of ten states of the northern and northeastern India i.e. Jammu and Kashmir and Himachal Pradesh (Western Himalaya), Uttarakhand (Central Himalaya), Sikkim and Arunachal Pradesh (Eastern Himalaya) and Nagaland, Manipur, Mizoram, Meghalaya and Tripura (Eastern extension of the Himalaya). The hilly parts of Assam and West Bengal are also formed the Himalaya. But for some technical reason, these two parts have been excluded from this study. The total area coverage of this region is 5, 33,604 Sq. Km, which

represents 16.2 percent of the total geographical area of India whereas, in terms of population, it obtains only 3.86 percent¹.



The IHR has a great significance in terms of its geostrategic location as well as for its rich natural resources. The IHR extends from the Indus River in the west to the Brahmaputra River in the east. The mountain ranges and river basins share transboundary connectedness. Six countries are having their boundaries with India. Mainly the economy of these states is dependent on traditionally grown subsistence cereal crops with low output. Majority of the population is still dependent on primary activities in the meantime flourishing of tourism sector few people get involved with service sectors. The IHR have an average Human Development Index i.e. 0.561, people living below the poverty line are 12.59 percent, environmental sustainability index is 60-80 percent and per capita income of the region is Rs. 34029.

Population	43,773,404
Area	515133
Population Density	85
Time Zone	IST (UTC+5:30)
States and Territories	Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Meghalaya and Tripura.
Important Towns	Jammu, Srinagar, Shimla, Dehradun, Guwahati, Jorhat, Agartala, Dimapur, Shillong, Aizawl, Imphal
Official Languages	Hindi, Assamese, Bengali, Bodo, English, Garo, Khasi, Kokborok, Manipuri, Mizo, Nepali, Sikkimese, Urdu
Religions	Hinduism, Islam, Buddhism, Christianity, Animism (Sanamahism, Seng Khasi Donyi-Polo etc.)

GENDER COMPOSITION OF THE POPULATION: INDIA AND IHR

There are so many tools to measure gender equity in a population. One of the important tools is Sex ratio, used to measure gender balance. It is defined in the census of India as the number of females per 1,000 male in the population. Table 1 shows the sex ratio of Indian Himalayan Region (IHR) as well as India from 1971-2011. It also shows that the sex ratio in all the states of IHR is close to the national average except Jammu Kashmir, Sikkim, and Uttarakhand where it is far below 889,890 and 912 respectively than the national average. Sex ratio in India shows a downward trend up to 1991 and then suddenly it has taken an upward turn. But census reveals a serious issue regarding the sex ratio between 0-6 years of age which poses a serious threat in the future to the female population of India as well as work participation rate.

Table 1: Sex ratio of India & IHR: 1971-2011

Years	1971	1981	1991	2001	2011
Jammu & Kashmir	957	963	896	892	889
Himachal Pradesh	945	940	976	968	972
Uttarakhand	N.A	N.A	876	898	912
Sikkim	863	835	878	875	890
Meghalaya	942	954	955	972	986
Tripura	943	946	945	948	961
Mizoram	946	919	921	935	975
Manipur	980	971	958	974	987
Nagaland	871	863	886	900	931
Arunachal Pradesh	861	862	859	893	920
India	930	934	927	933	940

Source- Census of India

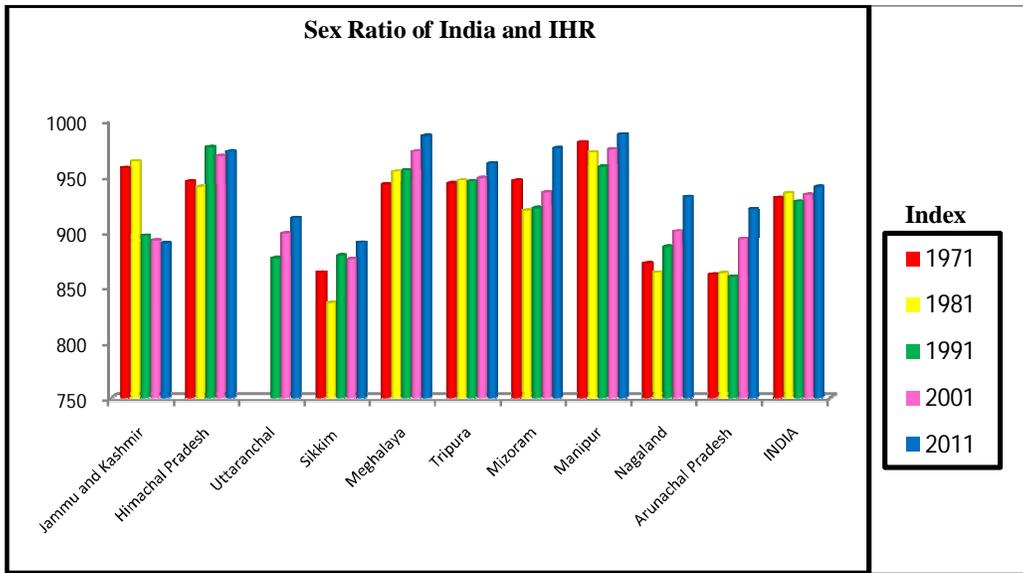
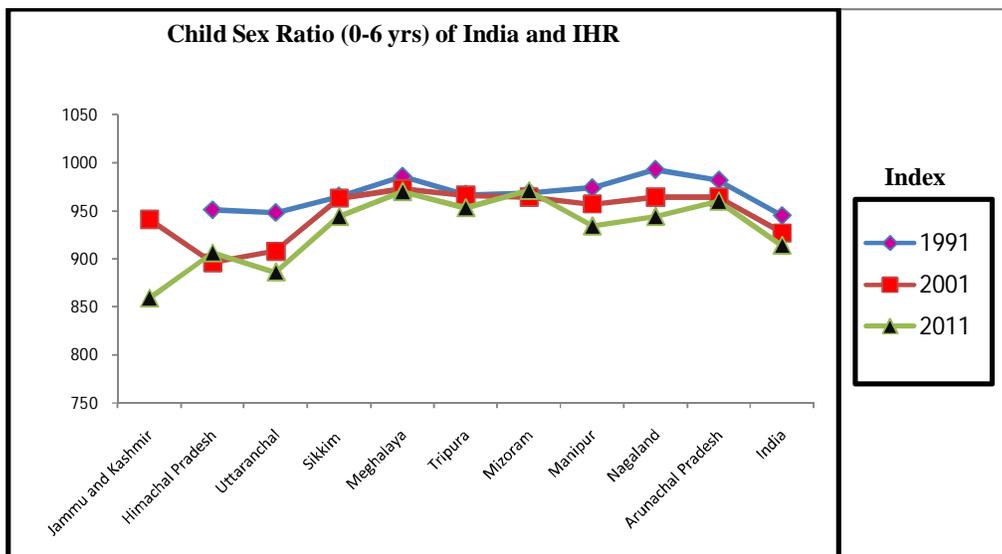


Table 2: Child Sex Ratio (0-6 years) of India & IHR

Years	1991	2001	2011
Jammu & Kashmir	N.A	941	859
Himachal Pradesh	951	896	906
Uttarakhand	948	908	886
Sikkim	965	963	944
Meghalaya	986	973	970
Tripura	967	966	953
Mizoram	969	964	971
Manipur	974	957	934
Nagaland	993	964	944
Arunachal Pradesh	982	964	960
India	945	927	914

Source- Census of India



WORK PARTICIPATION RATE IN INDIA AND IHR: AN OVERVIEW

In India the major number of the workforce are engaged in agriculture and allied sectors, having less number of participants in the field of secondary and tertiary sectors. But in recent times, the proportion of the working population in India, as well as IHR, is shifting towards the service sector which is a good sign for the upcoming growing economy of a country. At the State level, it is the Himachal Pradesh and Sikkim State which recorded highest WPR 51.85% and 50.47% respectively than rest of the states in 2011 census which also indicates the significance of Indian Himalayan Region.

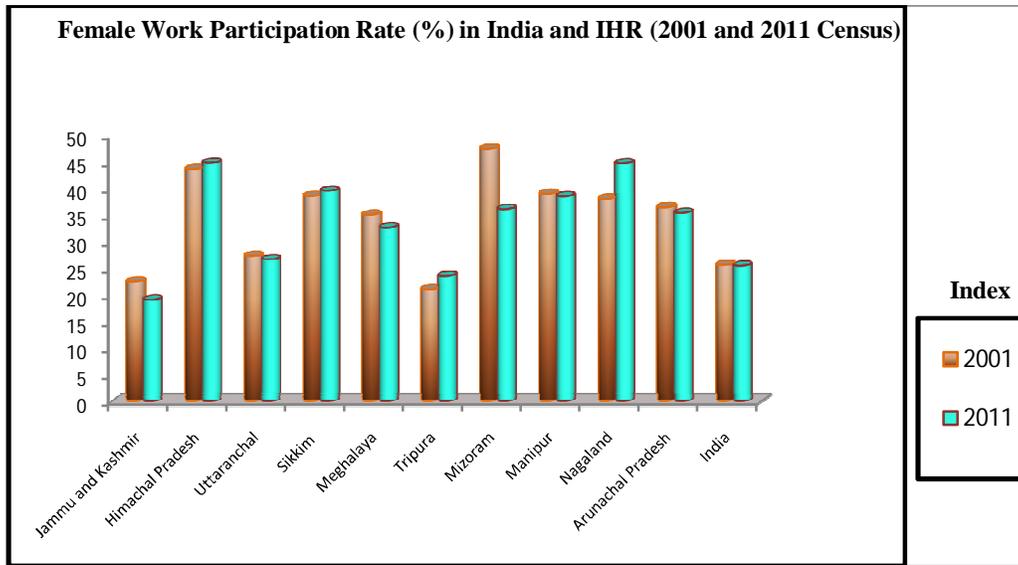
THE SCENARIO OF FEMALE WORK PARTICIPATION RATE IN INDIA:

Particularly the study will focus on the condition of female Work Participation Rate in IHR which is the major concern of this study. It is a general assumption that the proportion of women who are at work has considerably increased in recent times. In both rural and urban areas situation is the same. WPR for females were considerably lower than the WPR for males. WPR for males and females were nearly 54 and 25 percent respectively while in the urban areas male participation is high, female labor force participation (FLFP) has been drastically dropping down. The regional level analysis of FWPR shows a wide range of differences among the IHR States. It is the State of Himachal Pradesh which recorded a higher percentage of the female work participation rate in both 2001 and 2011 census accounting for 44.82 and 43.67 percent respectively. The State recorded a 2.62 percent growth rate in the last decade (2001 to 2011 census year). It was followed by the State Nagaland where FWPR accounted for 44.74 and 38.06 percent respectively. In 2011 census, the State Nagaland recorded the highest rural FWPR in Indian Himalayan Region. Even we found a majority of states have more than the national average. Uttarakhand shares the least urban Female WPR (11.3%) on the other hand Manipur recorded the highest urban FWPR i.e. 33.2 %.

Table 3: Female Work Participation Rate (In %) of India and IHR (2001 & 2011 Census)

Years	2001	2011
Jammu & Kashmir	22.5	19.11
Himachal Pradesh	43.7	44.82
Uttarakhand	27.3	26.68
Sikkim	38.6	39.57
Meghalaya	35.1	32.67
Tripura	21.1	23.57
Mizoram	47.5	36.16
Manipur	39.0	38.56
Nagaland	38.1	44.74
Arunachal Pradesh	36.5	35.44
India	25.63	25.51

Source- Census of India, Office of the Registrar General



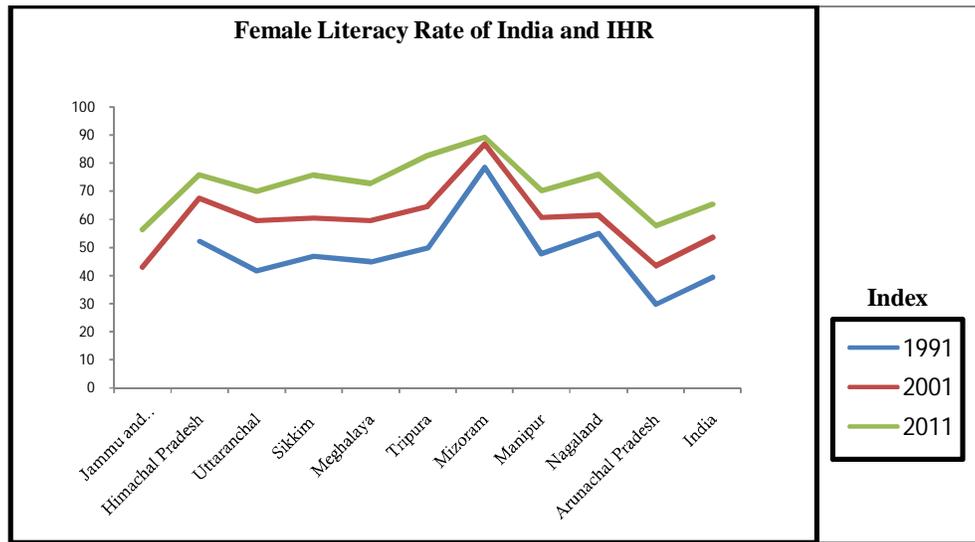
FEMALE LITERACY RATE AND WOMEN’S WORK PARTICIPATION RATE (WPR) IN IHR:

In this study, female literacy rate has been taken as an indicator of education of females and Female Work Participation Rate (FWPR) has been taken as an indicator of the extent of engagement of women in economic activities. Specifically, the paper tries to correlate the female literacy level and their participation in productive economic activities. It is theoretically expected that the higher the level of education will lead to a higher participation rate in economic activities. The actual scenario of literacy level and the participation rate of women in economic activities in this region are depicted by the following figures. Women are highest educated in Mizoram but it shares only 36.16 % of FWPR. In the case of other states like Himachal Pradesh and Nagaland recorded the highest participation of female workers also the literacy rate is higher than the other Indian Himalayan region states. The evidence from IHR is not supporting the expected positive relationship between female literacy rate and FWPR. There is inter-state variation in IHR in respect of two variables. This variation is well captured in the following figure. Another striking fact that is coming out from the table is that Tripura is ranked second in female literacy rate but in female WPR it records a far below rank.

Table 4: Female Literacy Rate of India & IHR (In %)

Years	1991	2001	2011
Jammu & Kashmir	N.A	43.00	56.43
Himachal Pradesh	52.1	67.42	75.93
Uttarakhand	41.6	59.63	70.01
Sikkim	46.7	60.40	75.87
Meghalaya	44.9	59.61	72.89
Tripura	49.7	64.43	82.73
Mizoram	78.6	86.75	89.27
Manipur	47.6	60.53	70.26
Nagaland	54.8	61.46	76.11
Arunachal Pradesh	29.7	43.53	57.7
India	39.29	53.67	65.46

Source- Census of India 2011



THE GROWTH OF FEMALE WORK PARTICIPATION RATE IN INDIA AND IHR:

If we compare both the census data of FWPR in the year of 2001 and 2011 then we can observe a more or less similar pattern of FWPR but with few exceptions. It is noticed that over the decade, the growth rate of female WPR declined both at the national and State level, except few in Indian Himalayan Region states. Most of the States recorded a negative growth rate of WPR over time. The Himachal Pradesh State emerged as the first rank State accounting for 44.82 percent in 2011 census replacing Mizoram State. Another important State of Nagaland also emerged as the second topmost State accounting for 44.74 percent. At the same time, all India average of FWRP level has been got down from 25.63 percent to 25.51 percent experiencing a negative growth rate marked (-0.44) percent (2001-2011). The State Nagaland recorded the highest growth rate of FWPR (17.57 percent) followed by Sikkim (2.62) in the year of 2011.

Table: 5 Growth of Female Work Participation Rate in India and IHR (2001-2011)

Positive Growth		Negative Growth	
States	FWPR	States	FWPR
Nagaland	17.57	Mizoram	-23.92
Tripura	11.82	Jammu & Kashmir	-14.89
Himachal Pradesh	2.62	Meghalaya	-7.05
Sikkim	2.62	Arunachal Pradesh	-3.01
		Uttarakhand	-2.37
		Manipur	-1.20
		India	-0.44

Source: Census of India, 2011, RGI, Govt. of India.

PARADOXICAL SITUATION:

If we compare the literacy rate as an indicator and FWPR in Indian Himalayan Region (IHR) with other major states of India a paradoxical situation has been observed. That is even though some of the states of IHR is having low female literacy level compared to that of other major states of India, WPR of women in IHR is higher than those states. This is clearly evident from table 7 which depicts female literacy rate and female WPR in some major states of India. In Kerala, the female literacy rate is 92.10 percent as per 2011 census but female WPR is figured at a much lower rate i.e. 18.23 percent and ranked 4 in female WPR. Similar trend is observed in case of Delhi, Punjab, and Chandigarh which are considered as developed states of India. This wide variation is well captured in the following figure. The variation is much higher as compared to the states of IHR as shown in the figure. This finding poses an interrogation of the causes of high female WPR in IHR than other economically developed states of India and also to find out other factors that leading comparatively higher participation of women in economic activities in IHR states. Moreover, the paper has no objective to find out other socio-economic reasons for this paradoxical result. The crux of the paper lies in that it will open further research avenues in this area.

Table: 6 FWPR and Female Literacy Rate of India & IHR (2011 Census)

Name of The States	% of Female Literacy Rate	FWPR IN %	Rank in female literacy rate	Rank in FWPR
Jammu & Kashmir	56.43	19.11	10	10
Himachal Pradesh	75.93	44.82	4	1
Uttarakhand	70.01	26.68	8	8
Sikkim	75.61	39.57	5	3
Meghalaya	72.89	32.67	6	7
Tripura	82.73	23.57	2	9
Mizoram	89.27	36.16	1	5
Manipur	70.26	38.56	7	4
Nagaland	76.11	44.74	3	2
Arunachal Pradesh	57.70	35.44	9	6
India	65.46	25.51	---	---

Source- Census of India 2011, Office of the Registrar General

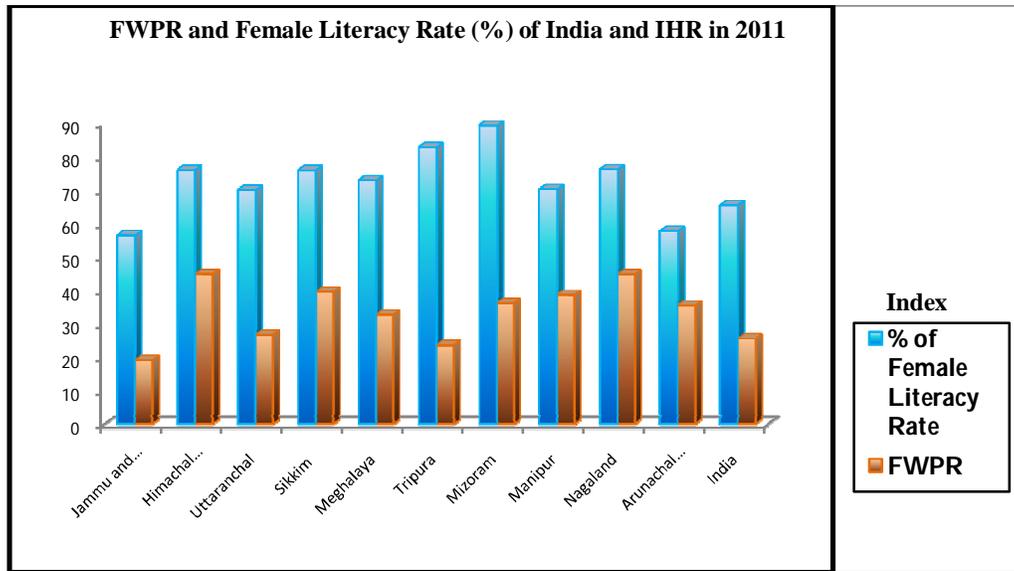


Table: 7 Variation in Female Literacy Rate & FWPR among major states of India, 2011

Name of The States	% of Female Literacy Rate	FWPR IN %	Rank in female literacy rate	Rank in FWPR
India	65.5	25.51	-	-
Punjab	70.7	13.91	5	9
Chandigarh	81.2	16.00	2	8
Haryana	65.9	17.79	7	6
Delhi	80.8	10.58	3	10
Rajasthan	52.1	35.12	9	1
Uttar Pradesh	57.2	16.75	8	7
Bihar	51.5	19.07	10	3
West Bengal	70.5	18.08	6	5
Maharashtra	75.9	31.06	4	2
Kerala	92.1	18.23	1	4

Source- Census of India 2011, Office of the Registrar General

The above finding clearly indicates that it is not only the education of women that control their participation in economic activities and thereby attaining the economic independence in IHR. But also some other socio-economic reasons are involved which are very much indigenous to respective Hill communities that can explain this whole situation. Another analysis for this paradox can be attempted from table 8 where state-wise work participation rate of women for rural and urban areas of states of IHR has been given. It is explored from that table, female WPR is higher in rural areas than that of in urban areas. It is a very well-known fact that agriculture is the main occupation in rural hilly areas and the maximum population gets their livelihood from agriculture and allied activities. So, it can easily be inferred that a higher proportion of the rural female population in IHR are engaged in primary activities.

Table 8: State-wise Rural-Urban FWPR of India & IHR, 2011 Census

Name of The States	FWPR of Rural (In %)	FWPR of Urban (In %)
Jammu & Kashmir	20.8	14.5
Himachal Pradesh	47.4	19.9
Uttarakhand	32.9	11.3
Sikkim	44.6	24.8
Meghalaya	35.0	23.6
Tripura	26.3	16.0
Mizoram	41.9	31.1
Manipur	41.2	33.2
Nagaland	52.3	25.9
Arunachal Pradesh	39.5	21.3
India	30.00	15.4

Source- Census of India 2011, Office of the Registrar General

CONCLUSION:

The female WPR had been very low and declining in India between the inter-censal periods of 2001 and 2011 census. The overall outcome of the study reveals generally women of IHR are in greater disadvantaged position and those who belong to a rural area in particular. The inherited social disadvantages in the patriarchal society, low level of education and skills, limited access to assets and other resources are significant contributory factors. The paper has analyzed the trend and pattern of female literacy level and female WPR in the states of IHR on the basis of the Census Report of 2001 and 2011 as well. The paper has also given a brief picture of gender composition of the population of India and IHR based on the different Census Reports. The major finding of the paper is that there is wide variation in the states of Indian Himalayan region in respect of female literacy rate and female WPR which are summarized in table 7 and following figures mentioned above. Another aspect of the paper is the comparison of the states of IHR with some major states of India in respect of female literacy rate and female WPR and the discovery of a paradoxical situation which is described above. The article has explored that it is not only education that explains the female WPR in IHR. Lastly, the paper has found the changing pattern of women workforce in different decades that reveals the situation of women in the Indian Himalayan Region.

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