

## CHAPTER 5

### CONSTRUCTION OF WOMEN DEVELOPMENT INDEX

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#### 5.1 Introduction

The second objective of this study is to construct Women Development Index of Haryana. This index has been made to measure the socio- economic status of women in Mahendergarh District. WDI is based on secondary data of census 2011. Three indicators have been taken in the construction of this index. These are 1) Female work participation (F.W.P), 2) female literacy rate, and 3) Sex Ratio. This index is applied on 21 districts of Haryana. Highest value of Index represents the highest socioeconomic status of female in that district and lowest value shows the low status of that particular district. This value lies between 0 to 1.

#### 5.2 Steps of construction of WDI

**Step 1-** In the first step value of three indicators have been taken as district wise.

**Step 2 –** In the second step all data have been converted into same unit (%).

**Step 3-** In the third step a formula of weighted method have been applied on each value of districts to construct index.

**Formula:-** 
$$\frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

**Step 4 –** In this step district wise index value of all indicators summed up and divided by numbers of indicators.

$$= \frac{\text{Value of index 1} + \text{Value of index 2} + \text{Value of Index 3}}{3}$$

**Step 5-** In this step ranks has been assigned to each district according to their value. (Rank of Panchkula district is not measured due to the lack of availability of female work participation.)

**Step 6-** In the last step all districts divided into three segments, Low Status (Below .50), Medium Status (Between .50 to .80) and High Status (Above. 80).

### 5.3 Construction of Women Development Index (WDI)

#### Step 1:

<b>Table 5.1 District-wise value of indicators</b>			
District	F.W.P in (%)	Literacy Rate (%)	Sex Ratio
Ambala	9.8	76.6	882
Bhiwani	25.1	64.8	884
Faridabad	12.1	75.2	810
Fatehabad	23.6	59.3	903
Gurgaon	16.1	77.6	853
Hisar	25	62.3	871
Jhajjar	17.2	71	861
Jind	25	61.6	870
Kaithal	16.1	60.7	880
Karnal	14.8	68.3	886
Kurukshetratra	15	69.2	889
Mewat	12.6	37.6	906
Mahendergarh	24.3	65.3	894
Palwal	13.9	56.4	879
Panipat	15	68.2	861
Panchkula	0	77.5	870
Rewari	24	70.5	898
Rohtak	14.9	71.2	868
Sirsa	21.6	61.2	896
Sonipat	19.8	70.9	853
Yamunanagar	8.3	72	877
Source: Census of India and District Handbook of India,2011			

As in the above table the Haryana's women literacy rate in most of the districts is above the literacy rate of women in India (64.4%). Gurgaon being most literate (77.6%) district of Haryana is far above in terms of percentage approx. double when compared to Mewat

least literate district (37.6%) which tells a lot about the regional disparities in this small and rich state. But other than few districts this state is able to meet up the nations pace of literacy rate over the period of time. Few districts which could not cope up with this pace have many structural and cultural problems. But most concern of the study is Mahendergarh district which too is showing the good numbers of women literacy rate (65.3%) as compared to Indian women literacy rate and other districts of Haryana but we also can't deny this fact that this district has a long road ahead to go in terms of women literacy rate as compared to few other districts of Haryana like gurgaon, panchkula, yamunanagar.

Female work participation in different jobs from farming to cultivating or from main to marginal again different districts have very distant data as yamunanagar have least work participation of female (8.3%) as compared to Bhiwani (25%) most female participation district. But if we are looking at Mahendergarh again it is giving very satisfactory results in terms of female work participation which is 24.3% second highest in Haryana .when looking at other districts most of the districts have digestible results except few like yamunanagar and Ambala. In female work participation, we couldn't study panchkula district due to non-availability of data on this variable.

The most talked issue about Haryana all over the nation is its sex ratio and this issue is the most concerned issues of both the state and center government. As against the 943 sex ratio of India Haryana's sex ratio just stands at 877 as lowest rank which is truly a matter of concern and if we go little bit more deep into this study than few districts of Haryana have very alarming situation which is very clearly visible in below given table like Sonipat , Jhajhar and Rohtak. But talking about our study area Mahendergarh (89.4%) which is among top districts with highest sex ratios in Haryana like fatehabad, Sirsa. but as compared to nationwide average sex ratio Mahendergarh has to make much more efforts to be there.

One fact is also can be seen that if there is glance on sex ratio of Haryana district of 2001 and 2011 census, then a surprising result came that all district have a positive growth rate from last census, But only Mahendergarh has a negative growth rate.

**Step -2:**

In the step 2 all variables convert into same units that is percentage, because female work participation and Literacy rate is already available in % form, so only sex ratio need to be converted into %. Table no. 5.2 shows the value all three indicators into % form.

<b>Table- 5.2:District-wise value of indicators in %</b>			
District	F.W.P in (%)	Literacy Rate (%)	Sex Ratio (%)
Ambala	9.8	76.6	88.2
Bhiwani	25.1	64.8	88.4
Faridabad	12.1	75.2	81
Fatehabad	23.6	59.3	90.3
Gurgaon	16.1	77.6	85.3
Hisar	25	62.3	87.1
Jhajjar	17.2	71	86.1
Jind	25	61.6	87
Kaithal	16.1	60.7	88
Karnal	14.8	68.3	88.6
Kurukshetra	15	69.2	88.9
Mewat	12.6	37.6	90.6
Mahendergarh	24.3	65.3	89.4
Palwal	13.9	56.4	87.9
Panipat	15	68.2	86.1
Panchkula	NA	77.5	87.0
Rewari	24	70.5	89.8
Rohtak	14.9	71.2	86.8
Sirsa	21.6	61.2	89.6
Sonipat	19.8	70.9	85.3
Yamunanagar	8.3	72	87.7
Source: Census 2011, District Handbook			
Note: F.W.P rate is not available in Panchkula			

**Step-3:**

In the below table, index 1 represents value of female work participation, Index 2 represent value of literacy rate and index 3 represent value of sex ratio. All districts have same rank as they are in Table No 1. Value 1 in all indexes counted as maximum value and value 0 is counted as minimum value during the calculation of index.

<b>Table No.5.3: Value of Indexes</b>				District	Index 1	Index2	Index 3
District	index 1	index 2	index3	Kuruksetra	0.39881	0.79	0.679245
Ambala	0.089286	0.975	0.54717	Mewat	0.255952	0	1
Bhiwani	1	0.68	0.584906	Mahendergarh	0.952381	0.6925	0.773585
Faridabad	0.22619	0.94	0.339623	Palwal	0.333333	0.47	0.490566
Fatehabad	0.910714	0.5425	0.943396	Panipat	0.39881	0.765	0.150943
Gurgaon	0.464286	1	0	Pnchkula	N.A.	0.9975	0.320755
Hisar	0.994048	0.6175	0.339623	Rewari	0.934524	0.8225	0.849057
Jhajjar	0.529762	0.835	0.150943	Rohtak	0.392857	0.84	0.283019
Jind	0.994048	0.6	0.150943	Sirsa	0.791667	0.59	0.811321
Kaithal	0.464286	0.5775	0.509434	Sonipat	0.684524	0.8325	0.018868
Karnal	0.386905	0.7675	0.622642	Yamunanagar	0	0.86	0.45283
Source: Based on Researcher calculation with given formula							

**Step-4:**

District	Total index
Ambala	0.54
Bhiwani	0.75
Faridabad	0.50
Fatehabad	0.81
Gurgaon	0.49
Hisar	0.65
Jhajjar	0.51
Jind	0.58
Kaithal	0.52
Karnal	0.59
Kuruksatra	0.62
Mewat	0.42
Mahendergarh	0.80
Palwal	0.43
Panipat	0.44
Pnchkula	NA
Rewari	0.87
Rohtak	0.51
Sirsa	0.73
Sonipat	0.51
Yamnanagar	0.44

Source: Based on Researcher calculation

Table no 5.4 is showing that in the index highest value is 0.87 that is assigned to Rewari and the lowest is 0.42 that is assigned to Mewat. As in the first table it has been seen that Mewat district has got first rank in sex ratio and lowest rank in literacy rate. It shows that people in Mewat are less educated but they don't difference between boy and girl.

**Step-5:**

<b>Table 5.5: District- wise Rank of WDI</b>	
District	Rank
Ambala	10
Bhiwani	4
Faridabad	15
Fatehabad	2
Gurgaon	16
Hisar	6
Jhajjar	14
Jind	9
Kaithal	11
Karnal	8
Kuruksatra	7
Mewat	20
Mahendergarh	3
Palwal	19
Panipat	17
Panchkula	NA
Rewari	1
Rohtak	13
Sirsa	5
Sonipat	12
Yamunanagar	18
Source: Based on Researcher Calculation	

The above table is showing the district-wise rank of socio economic status of women in Haryana. District Rewari got first rank; it shows that the condition of women in Rewari is higher than other district. Mahendergarh district got 3<sup>nd</sup> rank in the socioeconomic status

of female. This result is recommendable for this study. District Mewat is on 20<sup>th</sup> rank with lowest score. It shows that female in Mewat are not in good condition. They need support to be developed.

**Step- 6:**

<b>Table-5.6: District-wise Women Development Index Status</b>	
District	Status
Ambala	Medium
Bhiwani	Medium
Faridabad	Medium
Fatehabad	High
Gurgaon	Low
Hisar	Medium
Jhajjar	Medium
Jind	Medium
Kaithal	Medium
Karnal	Medium
Kuruksatra	Medium
Mewat	Low
Mahendergarh	Medium
Palwal	Low
Panipat	Low
Pnchkula	N.A
Rewari	High
Rohtak	Medium
Sirsa	Medium
Sonipat	Medium
Yamunanagar	Low
Source: Based on researcher calculation	



Table no. 5.6 finally shows that out of 20 districts two district attained high status, those are Rewari( .87), Fatehabad(.81) . Thirteen Districts such as Mahendergarh(.80), Bhiwani(.75), Sirsa(.73), Hisar(.65), Kurukshetra(.62), Karnal(.59), Jind(.58), Ambala(.54), Kaithal(.52), Sonipat(.51), Roahtak(.51), Jhajjar(.51), Faridabad(.50) fall in category of medium status. Remained five district, Gurgaon(.49), Yamunanagar(.44), Panipat(.44), Palwal(.43), Mewat(.42) got low ranking in Women Development Index(WDI).

### **Conclusion**

To fulfill the second objective some ideas have been taken from the past studies. According to the second objective of study in Women Development Index of Haryana shows that mostly districts comes under medium class status of female. Mahendergarh District is also showing its place in this class with the present indicators and calculation.