

Women Participation in Higher Education: A Comparative Study of The North Eastern States of India

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Abstract

Participation of women in higher education is one of the important development indexes. In many national and international forum, women education has been regarded as one of the benchmarks to measure societal development. Compared to the developed countries the status of India in women participation in higher education is not satisfactory. The Northeastern states being landlocked and geographically isolated, the participation of women in higher education is highly challenging. This paper tries to explore the women participation in higher education among the eight northeastern states. The study further tries to explore whether matrilineal society has any role to play in deciding the participation of women in higher education. The analysis is done based on secondary data collected from the Ministry of higher education, India. Among the states, Meghalaya, Sikkim and Nagaland show higher gender parity index (GPI) which indicates GPI favouring females. Among the states, five states have GPI above the national average (.92).

Keywords: Higher education, women participation, gender parity index

Introduction

The Indian education system has a long tradition; however, the modern education system has its root during the colonial period. Post independent India sees education as her biggest hurdle and creating education-related infrastructure and making education for all consumes a substantial share of the GDP (Aydogan, 2013). Since its independence, the Indian government established strong centrally controlled education system (Halder, 2009) and through the establishment of different commissions and institutions like University Education Commission (1948–1949), the Secondary Education Commission (1952–1953), University Grants Commission and the Kothari Commission (1964–66), NCERT etc. The first national policy of education was formulated in 1986 to promote education among the Indian people. The inclusion of quality education as the 4th sustainable development goal (Home | Sustainable Development, 2021.) signifies its importance the global scale. A country like ours with more than one billion people and one-third of global below poverty line people, education for all is the biggest challenge in post-independent India (Nath, 2014.). Higher

Education alone is capable of eradicating socio-economic disparities and contributes in building an inclusive society (Power et al., 2006.). Sustainable growth of India depends on positive socio-economic transformation with men and women as partners in progress, reinforcing each other's effort in removing barriers to inclusive growth (Sowjanya et al., 2019).

Northeast India comprising eight states of Indian federation is connected to the Indian mainland with a narrow land bridge. Due to its physiography, diversity in language, culture, education becomes far more challenging in this part of the country (Chanana, 1993). In that backdrop, women education looks more dismal. Socially this region is free from many social taboos which work against women like dowry, untouchability (Varghese & Malik, 2015). The region also possesses one matrilineal society in the state of Meghalaya. It is, therefore, aimed in this study to explore what is the status of women in terms of education.

Objectives

1. To study the participation of women in higher education in eight northeastern states

2. To compare the participation of women in higher education in matrilineal and patrilineal society.

Hypothesis

1. Women participation in the various higher education sector in northeastern states is better than the national average.
2. Matrilineal society has better women participation in higher education than patrilineal society

Methodology

The entire study is based upon the secondary sources of data which have been collected from the Ministry of Human Resource Development, Govt. of India website. Out of the all states of India, the information on northeast Indian states have been considered in this study. The collected data further processed with statistical techniques and presented with appropriate graphs.

Significance of the study

Higher education plays a significant role in our education system and women participation is an important factor in achieving higher education objectives of any country. The education of women is particularly valuable as a strategic investment in human resources, as the social returns are high. The education of women and girls has a tremendous impact not

only on their own development but also on that of their families and communities. It acts as a catalyst in virtually in every dimension of development and poverty alleviation with outcomes such a reduced infant mortality, improved child survival, better family health, increased educational attainment, higher productivity and general improvement in the nations economic situation.

Results and Discussion:

Objective no 1: To study the participation of women in higher education in eight northeastern states

Effective population for higher education is the age group between 18-23 years. India being the youth-dominated country, to cater to the need of the growing youth community in the field of higher education is a challenge. In order to see the participation of women in higher education, the effective population of higher education i.e. the age group of 18-23 years of the region have been extracted and presented in table 1. It shows the percentage of man and women in the age group of 18-23 years. It is interesting to note that the national average shows a comparatively low percentage of women population, five north-eastern states out of eight states shows higher woman population during the study period. Arunachal Pradesh, Nagaland and Sikkim have been an exception in this regard.

Table 1: Percentage of man and women population between 18-23 years age group

States	2011		2012		2013		2014		2015		2016		Aver_M	Aver_F
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
Arunachal Pradesh	50.10	49.90	50.08	49.92	50.07	49.93	50.05	49.95	50.04	49.96	50.03	49.97	50.06	49.94
Assam	49.15	50.85	49.05	50.95	48.95	51.05	48.85	51.15	48.75	51.25	48.66	51.34	48.90	51.10
Manipur	49.21	50.79	49.20	50.80	49.18	50.82	49.17	50.83	49.16	50.84	49.15	50.85	49.18	50.82
Meghalaya	49.29	50.71	49.27	50.73	49.26	50.74	49.24	50.76	49.23	50.77	49.22	50.78	49.25	50.75
Mizoram	49.74	50.26	49.73	50.27	49.71	50.29	49.70	50.30	49.69	50.31	49.68	50.32	49.71	50.29

Nagaland	50.95	49.05	50.93	49.07	50.92	49.08	50.90	49.10	50.89	49.11	50.88	49.12	50.91	49.09
Sikkim	51.72	48.28	51.71	48.29	51.69	48.31	51.68	48.32	51.67	48.33	51.66	48.34	51.69	48.31
Tripura	49.04	50.96	49.02	50.98	49.01	50.99	48.99	51.01	48.98	51.02	48.97	51.03	49.00	51.00
India	52.26	47.74	52.14	47.86	52.03	47.97	51.91	48.09	51.79	48.21	51.67	48.33	51.97	48.03

Source: Ministry of Human Resource

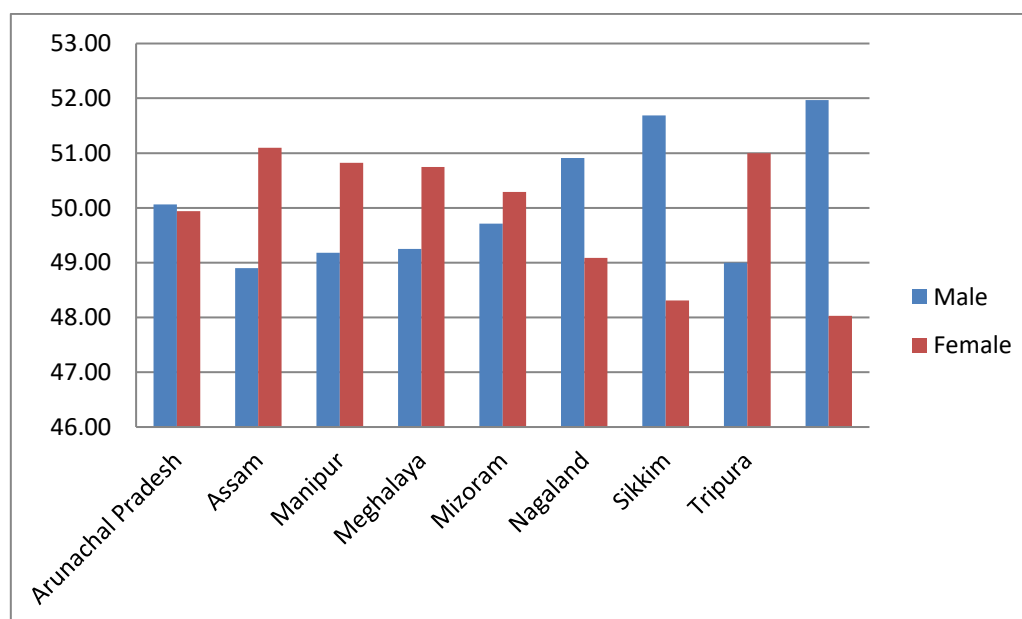


Fig.1. Male-female population in the NE States (18-23 years)

Table 2: Gross enrolment ratio in the Northeastern states between 2011-2016

States	2011		2012		2013		2014		2015		2016		Aver_M	Aver_F
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
Arunachal Pradesh	33.6	19.5	22.5	20.2	18.3	19.8	25.7	26.6	28.6	27.9	28.8	28.5	26.27	23.74
Assam	13.3	13.4	14.6	14.8	14.0	13.7	16.5	15.2	15.4	14.3	16.2	14.7	15.01	14.34
Manipur	38.5	33.3	30.4	29.9	30.9	29.0	37.9	37.6	37.1	34.8	35.3	33.1	35.02	32.94
Meghalaya	15.3	19.8	16.3	18.5	18.6	19.7	19.7	18.9	19.8	21.2	20.4	21.1	18.37	19.86
Mizoram	22.0	21.1	19.6	18.3	22.4	22.0	23.7	22.7	23.5	23.0	25.2	23.0	22.75	21.71

Nagaland	25.8	16.9	18.2	13.4	16.6	12.8	16.9	13.9	15.2	16.1	14.2	15.6	17.81	14.77
Sikkim	26.0	22.2	28.9	27.4	21.8	26.9	26.4	29.3	28.4	32.4	36.7	38.5	28.06	29.45
Tripura	16.0	11.0	14.6	10.2	16.6	11.7	17.9	12.9	20.2	13.5	19.9	14.0	17.54	12.23
India	20.8	17.9	22.1	19.4	22.7	20.1	23.9	22.0	25.3	23.2	25.4	23.5	23.34	21.01

Source: Ministry of Human Resource

Table 2 shows a gross enrolment ratio of northeastern states. Four states namely Arunachal Pradesh, Manipur, Mizoram and Sikkim have more than the national average in gross enrolment ratio of women. The average

enrolment ratio for India is 23.34 and 21.01 respectively for man and women. Having a GER above national average despite low in infrastructure and other social factors is commendable.

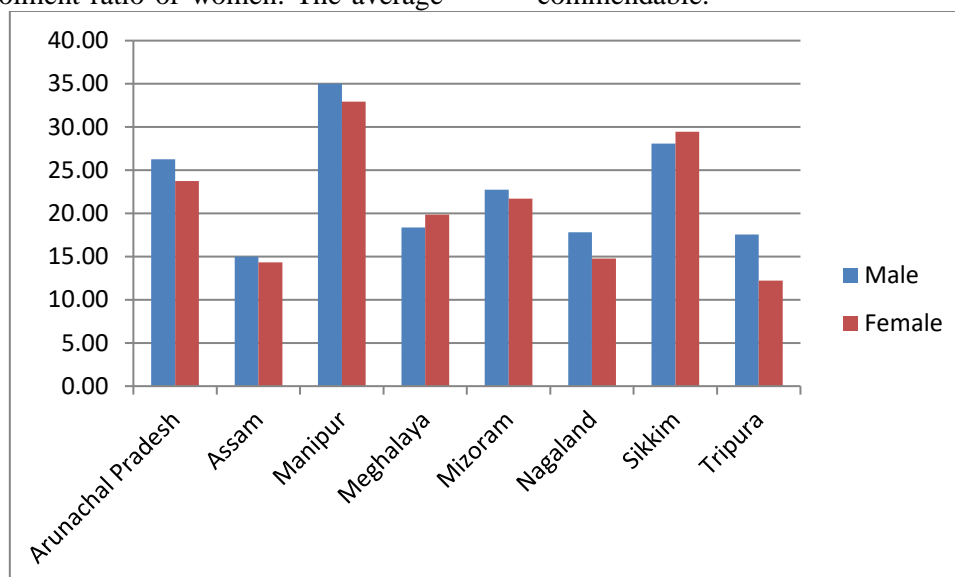


Fig. 2: GER in the Northeastern states

In order to see the women participation of different categories of courses three parameters have been chosen, i.e. PhD, Postgraduate and undergraduate courses. It is interesting to note that in undergraduate

courses male participation is dominating while as the courses progress women participation increases.

Table 3: Enrolment of male and female in PhD courses between 2011-2016

States	2011		2012		2013		2014		2015		2016		Aver_M
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Arunachal Pradesh	73.55	26.45	69.58	30.42	62.99	37.01	63.14	36.86	57.88	42.12	57.23	42.77	64.06
Assam	60.43	39.57	61.48	38.52	63.37	36.63	60.73	39.27	61.47	38.53	59.83	40.17	61.22
Manipur	51.62	48.38	53.36	46.64	50.82	49.18	50.61	49.39	50.93	49.07	50.97	49.03	51.39
Meghalaya	46.21	53.79	56.62	43.38	49.66	50.34	47.16	52.84	51.64	48.36	47.16	52.84	49.74

Mizoram	53.97	46.03	44.53	55.47	41.22	58.78	45.74	54.26	52.05	47.95	51.71	48.29	48.20
Nagaland	48.41	51.59	45.79	54.21	52.76	47.24	48.18	51.82	49.24	50.76	54.04	45.96	49.74
Sikkim	0.00	0.00	0.00	0.00	58.62	41.17	58.05	41.95	59.89	40.11	58.72	41.28	39.21
Tripura	72.97	27.03	55.17	44.83	59.46	40.54	60.49	39.51	64.05	35.95	61.23	38.77	62.23
India	61.67	38.33	60.54	39.46	58.32	41.68	60.04	39.96	59.32	40.68	58.95	41.05	59.81

In PhD courses Meghalaya scores slightly better in women participation than their male counterpart while Tripura scores lowest in this

category. Altogether 4 states have better women participation rate than the national average during the study period.

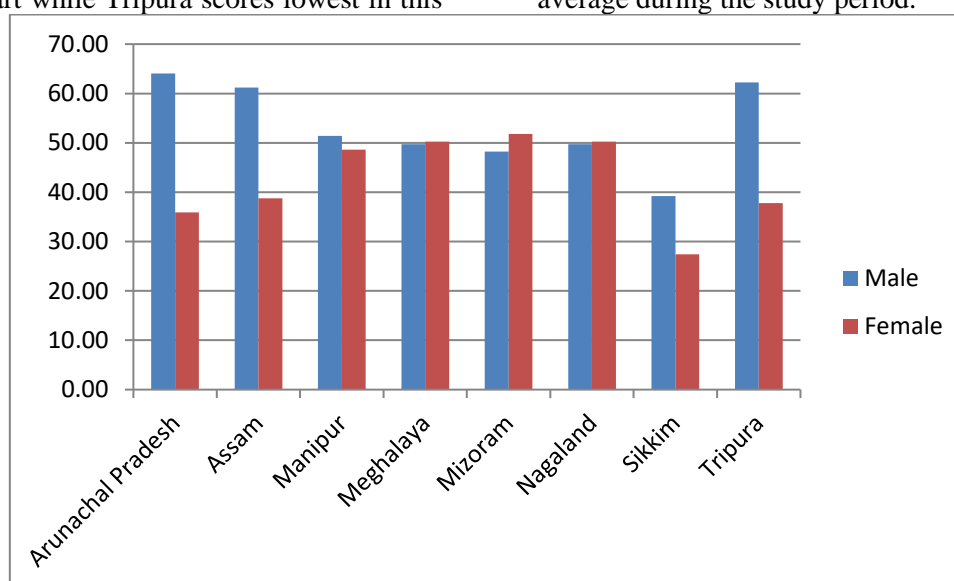


Fig 3: Women participation in the PhD programmes in Northeastern states

Table 4: Enrolment of male and female in Postgraduate courses between 2011-2016

States	2011		2012		2013		2014		2015		2016		Aver_M	Aver_F
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
Arunachal Pradesh	58.98	41.02	49.00	51.00	44.15	55.85	42.76	57.24	42.75	57.25	45.86	54.14	47.25	52.75
Assam	63.47	36.53	46.93	53.07	46.50	53.50	46.95	53.05	45.55	54.45	46.24	53.76	49.27	50.73
Manipur	59.13	40.87	49.63	50.37	50.53	49.47	51.46	48.54	51.32	48.68	52.78	47.22	52.47	47.53
Meghalaya	42.88	57.12	46.52	53.48	42.26	57.74	41.74	58.26	42.93	57.07	40.85	59.15	42.86	57.14
Mizoram	54.30	45.70	51.42	48.58	52.55	47.45	51.15	48.85	51.77	48.23	49.49	50.51	51.78	48.22
Nagaland	88.95	11.05	86.29	13.71	72.91	27.09	64.27	35.73	49.28	50.72	43.42	56.58	67.52	32.48
Sikkim	77.90	22.10	63.61	36.39	45.16	54.84	43.76	56.24	43.22	56.78	50.05	49.95	53.95	46.05

Tripura	59.22	40.78	54.70	45.30	54.49	45.51	57.30	42.70	59.05	40.95	59.38	40.62	57.36	42.64
India	55.48	44.52	52.54	47.46	51.31	48.69	49.41	50.59	48.45	51.55	46.42	53.58	50.60	49.40

In postgraduate courses, the national average percentage of women is around 53.58. In Northeastern state, Meghalaya scores highest with 59.15 and Tripura scores lowest with 40.62. 3 out of eight northeastern states have

better women participation in postgraduate courses.

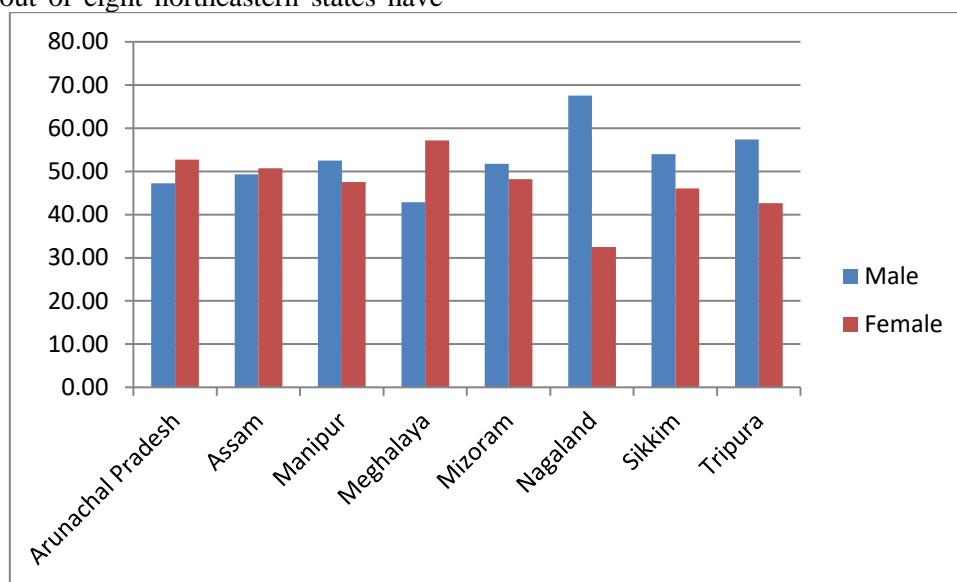


Fig 4: Women participation in the PG programmes in Northeastern states

Table 5: Enrolment of male and female in undergraduate courses between 2011-2016

States	2011		2012		2013		2014		2015		2016		Aver_M	Ave_r_F
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
Arunachal Pradesh	63.56	36.44	51.10	48.90	46.01	53.99	48.16	51.84	50.99	49.01	50.03	49.97	51.64	48.36
Assam	50.67	49.33	48.94	51.06	49.94	50.06	51.00	49.00	50.99	49.01	51.88	48.12	50.57	49.43
Manipur	53.76	46.24	49.58	50.42	50.73	49.27	49.00	51.00	50.57	49.43	50.32	49.68	50.66	49.34
Meghalaya	44.55	55.45	46.44	53.56	48.60	51.40	51.88	48.12	48.56	51.44	49.74	50.26	48.29	51.71
Mizoram	52.67	47.33	52.77	47.23	51.06	48.94	52.05	47.95	50.83	49.17	52.39	47.61	51.96	48.04
Nagaland	55.35	44.65	50.64	49.36	54.26	45.74	53.79	46.21	49.40	50.60	49.40	50.60	52.14	47.86
Sikkim	47.63	52.37	49.96	50.04	46.13	53.87	49.90	50.10	49.14	50.86	50.25	49.75	48.84	51.16
Tripura	60.83	39.17	59.09	40.91	58.70	41.30	57.37	42.63	58.62	41.38	57.48	42.52	58.68	41.32

India	55.15	44.85	54.42	45.58	54.08	45.92	53.23	46.77	53.24	46.76	53.29	46.71	53.90	46.10
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In the case of undergraduate courses, except for Meghalaya and Sikkim, all states have lower women participation (less than 50 %).

However, 7 out of 8 states have better women participation than the national average.

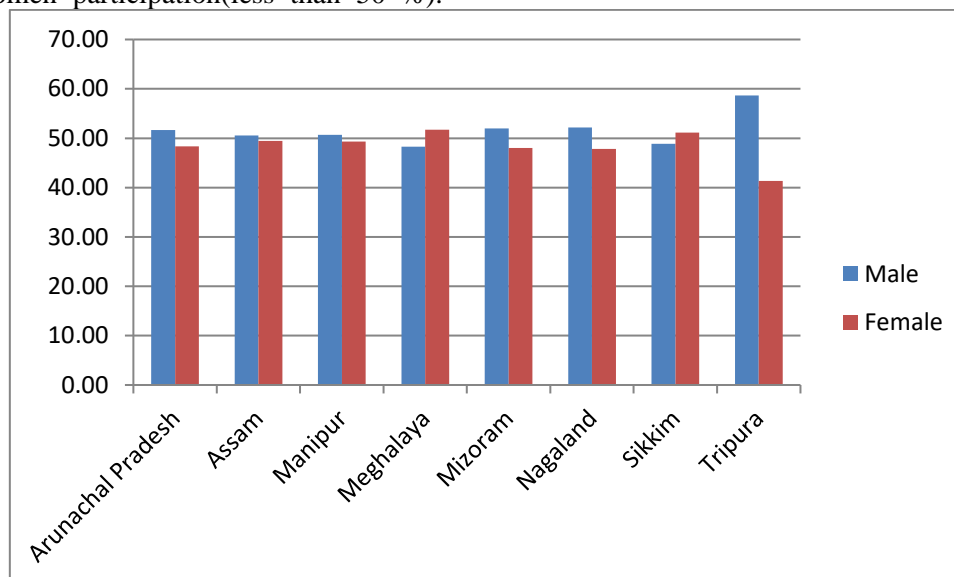


Fig 5: Women participation in the UG programmes in Northeastern states

The five parameters considered above show that women participation from northeastern states in these areas are better the national average in most cases. This validates our hypothesis that women participation in the various higher education sectors in northeastern states is better than the national average. Therefore the hypothesis may be accepted.

Objective No 2: To compare the participation of women in higher education in matrilineal and patrilineal society.

Gender Parity Index (GPI)

The **Gender Parity Index (GPI)** is a socioeconomic index usually designed to measure the relative access to education of

males and females. This index is released by UNESCO. In its simplest form, it is calculated as the quotient of the number of females by the number of males enrolled in a given stage of education. A GPI equal to one signifies equality between males and females. A GPI of less than one is an indication that gender parity favours males while a GPI greater than one indicates gender parity that favours females. GPI has been considered as one of the major parameters in this study.

Among the states, Meghalaya and Sikkim show higher gender parity index (GPI) which indicates GPI favouring females (Table 6). Among the states, six states have GPI above the national average (.92).

Table 6: Gender Parity Index of the Northeastern states

States	2011	2012	2013	2014	2015	2016	Ave
Arunachal Pradesh	0.58	0.89	1.08	1.04	0.97	0.99	0.93
Assam	1.01	1.01	0.97	0.92	0.93	0.90	0.96
Manipur	0.86	0.98	0.94	0.99	0.94	0.94	0.94
Meghalaya	1.29	1.13	1.06	0.96	1.07	1.04	1.09
Mizoram	0.96	0.93	0.98	0.96	0.98	0.91	0.95
Nagaland	0.65	0.74	0.77	0.82	1.06	1.10	0.86
Sikkim	0.85	0.95	1.23	1.11	1.14	1.05	1.05

Tripura	0.69	0.70	0.71	0.72	0.67	0.70	0.70
India	0.86	0.88	0.89	0.92	0.92	0.92	0.90

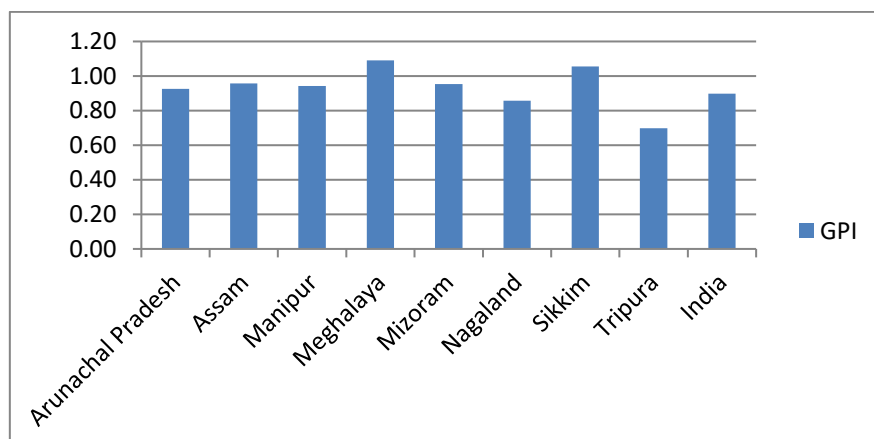


Fig 6: Gender Parity Index of Northeastern States

In order to see which state have better women participation, a composite index have been prepared based on five parameters from table 1 to table 5. For each case when a particular state posses better women participation or

better percentage than male counterpart a value of 1 is added. After seeing all the parameters the values are added to have a composite score (table 7).

Table 7: Composite scores of women participation based on five selected parameters

States	Women population	GER	PhD	PG	UG	Total score
Arunachal Pradesh	0	0	0	1	0	1
Assam	1	0	0	1	0	2
Manipur	1	0	0	0	0	1
Meghalaya	1	1	1	1	1	5
Mizoram	1	0	1	0	0	2
Nagaland	0	0	1	0	0	1
Sikkim	0	1	0	0	1	2
Tripura	1	0	0	0	0	1

From table 7, it has been evident that the state of Meghalaya has a better composite score and in all parameters, the state has better women participation. In considering table 6 and 7 we can come to the conclusion that the matrilineal society of the state helped in achieving better women participation in higher education. Therefore the hypothesis that matrilineal society has better women participation in higher education than patrilineal society can be accepted.

Major findings of the study

1. From the study it has been found that five North-eastern states Assam, Manipur,

Meghalaya, Mizoram and Tripura shows higher woman population (age group 18-23) during the study period.

2. It has been found that Arunachal Pradesh, Nagaland and Sikkim shows lower women population.

3. From the study it has been found that the average enrolment ratio for India is 23.34 and 21.01 respectively for man and women. In that case four states namely Arunachal Pradesh, Manipur, Mizoram and Sikkim have more than the national average in gross enrolment ratio of women.

4. It has been found that Assam, Meghalaya, Nagaland and Tripura have low gross

enrolment ratio of women than the national average.

5. From the study it has been found that altogether four states Manipur, Meghalaya, Mizoram and Nagaland have better women participation in Ph.D. courses than the national average during the study period.

6. In post graduate courses the national average percentage of women is around 49.40. In North-eastern states Meghalaya scores highest with 57.14 and Nagaland scores lowest with 32.48%.

7. Arunachal Pradesh, Assam, and Meghalaya have better women participation in postgraduate courses than other North-eastern states.

8. In case of undergraduate courses except for Meghalaya and Sikkim all states have lower women participation.

9. However 7 out of 8 states have better women participation in undergraduate courses than the national average.

10. From the study it has been found that women participation in the various higher education sector in North-eastern states is better than the national average.

11. It has been found that among the north eastern states Meghalaya and Sikkim shows higher Gender Parity Index (GPI) which indicates GPI favouring females.

12. Six states Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Sikkim have high GPI than the national average.

13. From the study it has been found that Meghalaya has a better women participation in higher education. In case of Meghalaya the matrilineal society of the state helped in achieving better women participation in higher education.

CONCLUSION

The movement for improving women's status all over the world has always emphasised education as the most significant instrument for changing women's subjugated position in society. As we know that highest women literacy rate is regarded as the essential part of human resource base in the Country. Education influences a woman's chances of paid employment, her earning power, her age at marriage, her exercise of legal and political rights, and even her ability to care herself and her children, etc. At present, girls' education has expanded remarkably in North-East. The enrolment of girls in the pre-primary, primary,

secondary levels, University levels have increased enormously. From the study, it can be concluded that amongst the 8 North-Eastern States, four states namely Arunachal Pradesh, Manipur, Mizoram and Sikkim have more than the national average in gross enrolment ratio of women. From the above observation, we can also conclude that matrilineal society of the Meghalaya state helped in achieving better women participation in higher education. Therefore, it can be said that Girls are showing special interest and aptitude for higher education as the number of efforts have been made to promote the education of girls and women.

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