Micro Level Analysis of Inequality of Rural Female Literacy Distribution of Different Districts of West Bengal

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ABSTRACT: According to Indian Census1991, if above six year people can write and read in any language they called literate. After seventy years of independence from the British literacy rate could not reach satisfactory level especially in rural area. Even Literacy rate does not distribute equally in rural India. Literacy rate of rural women is comparatively in problematic situation. West Bengal's literacy rate is above the national average, but number of villages in west Bengal are facing problems in respect to female literacy. According 2011 Indian census, National and West Bengal Literacy rate are respectively 74.04% and 76.26% and female literacy are respectively 65.46% and 70.54%. National rural female literacy rate is 58.75%, but same thing in West Bengal is 65.51%.

In this study, inequality in rural female literacy of different districts of West Bengal is a main analytical part. This inequality comes from disparity in share of female total population and female literate population of individual village in perspective of whole District. In this context, Purulia, Bankura, Uttar Dinajpur ect. Districts are shown high inequality and Murshidabad, North 24 Parganas, Purba Medinipur, Darjeeling etc. are low in inequality. Low inequality shows less uneven distribution of Rural Female Literacy.

KEYWORDS - Inequality in Literacy, Literacy Rate, Population, Literate Population, Women Literacy,

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I. INTRODUCTION

After the independence of many years, many administrative and social work has been done from the governmental and non-governmental organisation to literate every person especially for rural population. But organizations are partially failed number of time to reach her destination. Recommendations of Kothari Commission, National Educational policy 1986, Sarva Siksa Mission, Right to Education 2009 etc. are followed from the different ends, but impact of these are not reach proper place. According to Indian Census 2011, after of everything national average literacy rate is 74.04% where female literacy is 65.46%. West Bengal is near to national average with 76.26% and 70.54% respectively. Where national rural female literacy rate is 58.75%, West Bengal average rural female literacy rate is slightly high 65.51% but not in satisfactory level [1]. So it is proved that literacy not distributed equally. For that rural women are facing social empowerment problem to take family decision due to illiterate and they are completely dependent on male persons [2]. Inequality denotes the distributional difference in anything. When we have some amount of thing but always it is not to reach every person equally, it creates inequality [3]. There we analyze the inequality of rural female literacy on the basis what should be the literacy with compare to percentage share of female population of district. We want to find out, is there any difference between rural female literates percentage of share of district total rural female literates and rural female population percentage of share of district total rural female population. Researcher find out the difference among districts in this purpose.

II. OBJECTIVES

Present study has carried specific objectives:

- To find inequality between percentage share of Female Population and Female Literate Population of individual villages
- To obtain correlation between percentage share of Female Population and Female Literate Population of individual villages.
- To discover the different levels of inequality in rural female literacy
- To identify the causes of low and high inequality of literacy distribution
- To suggest some recommendations to solve the inequality of rural female literacy

III. RESEARCH QUESTIONS

On the basis of specific objective research questions are:

- Is there any difference between percentage share of rural female population and rural literate female population at each district level of west Bengal?
- Is there any relationship between percentage share of rural female population and rural literate female population at each district level of west Bengal?
- What kind of variance of rural female literacy inequality found in different districts of West Bengal?
- How socio-economic and socio-cultural factors are created impact on rural female literacy of different districts of West Bengal
- How rural female literacy inequality is solved in different district of West Bengal?

IV. METHODOLOGY

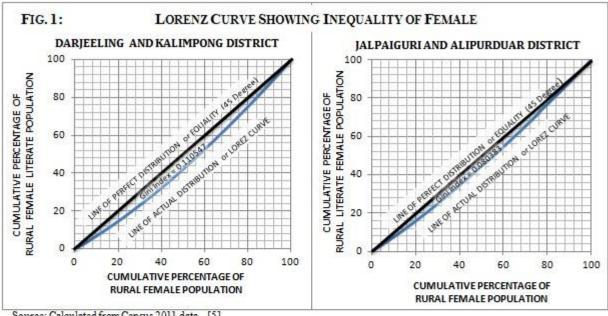
Indian Census 2011 raw data is used for primary calculation. Village level female literacy rate calculated by the researcher. According to definition of literacy rate of Indian census 1991, below 7 year population is excluded from the calculation. With help of Lorenz Curve and Gini Coefficient, researcher tries to found inequality of rural female literacy of different districts of West Bengal. Inequality of rural female literacy is represented by difference between percentage share of Female Population and Female Literate Population of individual villages' in respect of different districts of west Bengal

The Lorenz curve is the graphical representation of wealth distribution developed by American economist Max Lorenz in 1905. In our research wealth was rural female literacy. On the graph, a straight diagonal line represents perfect equality of rural female literate distribution, the Lorenz curve lies beneath it, showing the reality of rural female literate population distribution.[4] The difference between the straight line and the curved line is the amount of inequality of rural female literate distribution, a figure described by the Gini coefficient. There female literacy rate of individual village arranged in order of ascending, then it was calculated percentage of rural female population of individual village to total rural female population of district and percentage of rural female literate of individual village to total rural female literate of district. Difference between of two type of percentage creates inequality. Inequality of rural female literacy in our research was percentage share of literate population of individual villages from total rural literate population. It was no necessary that every village taking equal number of literate population. So researcher check inequality with individual female population percentage shares of total rural female population. That mean an individual village have difference in two type percentages which create district level inequality of rural female literacy. In this perspective Lorenz Curve and Gini coefficient or Gini Index show the inequality of female literacy. When numbers of villages have got this type inequality it forms large inequality in district level. It is not significant for the rural female literacy. Same thing researcher found in his research but not in large quantity of deviation. Line of Equality and Lorenz cure shows it clearly. Gini Coefficient value is always 0 to 1. Formula for Gini Coefficient is Gini Coefficient

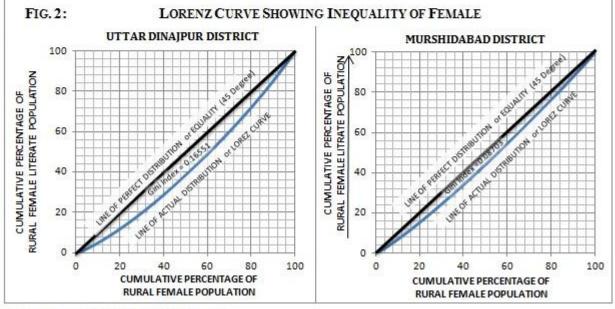
> (G)= $1-\sum_{k=1}^{n}(X_k-X_{k+1})(Y_k+Y_{k+1})$ Where, X= Percentage share of literate population of a village Y= Percentage share of Population of a village [4]

V. INEQUALITY OF RURAL FEMALE LITERACY OF DIFFERENT DISTRICTS

In Darjeeling District, Gini Coeffient was calculated 0.11055. Village female literacy sharing percentage inequality of Darjeeling district could found relatively high compare to other district. It was happened due to inaccessibility in perspective of communication and literacy. Foothill district Jalpaiguri had 0.08038 Gini Coefficient. Inequality of rural female literacy rate was also low with compare to female population percentage. It was not due to high rural female literacy, but it was happened for low female literacy equally distribution. Another newly created district Alipurduar of Himalayan foothill of West Bengal had Gini coefficient 0.08858. Same situation was arising in this district where majority of villages were low female literacy rate. But percentage share of Literate population and total population were not creating high difference and inequality in rural female literacy. Kochbihar district is another north Bengal district who's Gini Coefficient was 0.06965 which show the low equality of rural female literacy. But Kochbihar district over all faced same problem behind the rural female literacy. Near about low female populated villages had low female literacy rate. Because of Chhit mahal problem, developmental impact also focused on rural female literacy.



Source: Calculated from Census 2011 data [5]

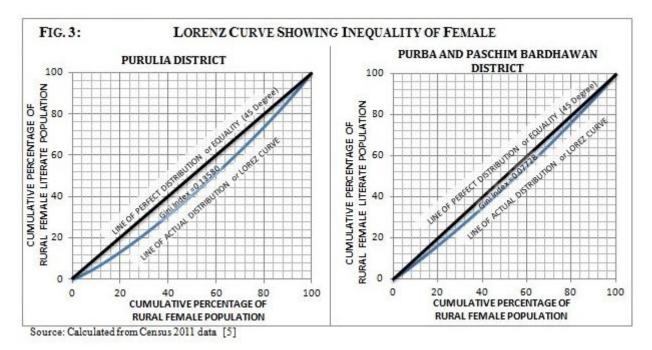


Source: Calculated from Census 2011 data

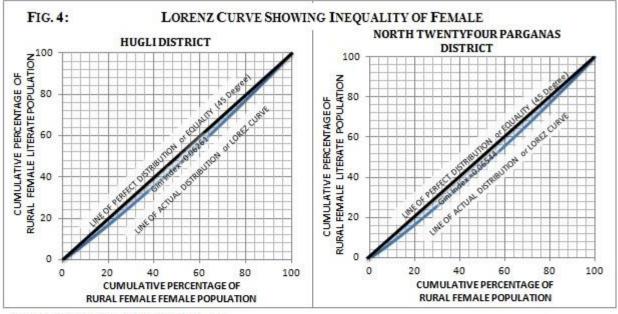
Uttar Dinajpur was having large number of Muslim community. There Gini Coefficient was 0.16551 which denoted relatively high inequality with compare to other north Bengal district and all over West Bengal. Muslim community faced some educational problem which impact also notified on this district. Relatively low female populated villages had high female literacy but high populated villages had low female literacy. Dakshin Dinajpur is another north Bengal district whose Gini coefficient was 0.10531 which represent Inequality of rural female literacy. Compare to Uttar Dinajpur it was low because rural female literacy rate relatively high. Another thing was low Muslim dominated villages, Majority was migrated from Bangladesh. Malda also Muslim dominated district from middle age and it is also known as Gaur. Its Gini Coefficient was 0.12121; this was also relatively high inequality in literacy. Muslim community related educational problems were responsible for that. Murshidabad district faced same thing in perspective of rural female literacy. But Gini Coefficient for inequality of female literacy rate was 0.08703 which denote low inequality of rural female literacy. That means,

Murshidabad was low rural female literacy rate dominated district, though rural female literacy rate was not shown high inequality.

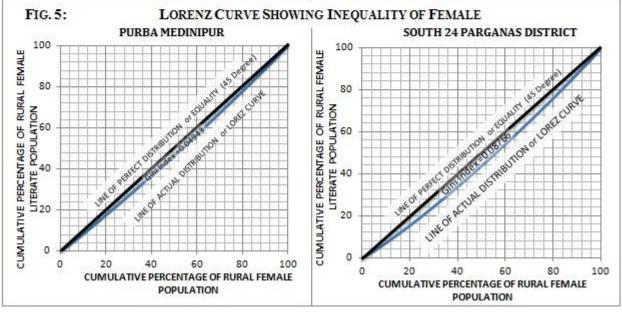
Red soil, uneven culture, low productive land etc. give different dimension. Birbhum is educationally backward district, some time Childs are first generation learner. Gini coefficient of rural female literacy inequality was calculated 0.09989 which was relatively low inequality in rural female literacy. Over all rural female literacy rate was near about same representation. Bardhhaman district's western part educationally backward due to tribal and under develop people. Eastern parts relatively educationally develop due to development of agricultural sector. For that Gini coefficient of rural female literacy rate was 0.7728 which represent low inequality in rural female literacy rate. Bankura District one of the educationally under develop district. There have number of tribal community who create equality in rural female literacy rate. Gini coefficient in this perspective was 0.11976 which was relatively high inequality to compare with other districts. Purulia is totally tribal dominated district and they also educationally backward. Financial background was found relatively high. So, 0.1390 Gini co-efficient shows the relatively high inequality of rural female literacy rate. It proved that where tribal community dominated villages in a large number their female literacy relatively low due to regional under development. But villages were very much developed with compare to tribal dominated villages. Paschim Medinipur district is known as Jangal mahal. Gini Coefficient of rural female literacy rate inequality from Lorenz Curve of this district was 0.10867. It denoted as relatively high inequality in rural female literacy over all district. Eastern part was in low inequality and western part was in high inequality in district.



Nadia is known for his religious and agriculture perspective. Northern part of district was relatively high inequality found in rural female literacy, but southern part was opposite because of growing modernization and contact with urbanization. Overall district level Gini Co-efficient in rural female literacy was 0.08189 which represent low inequality. North 24 parganas is relatively educationally high achieving district in West Bengal. Proper developments of all different aspect are down and its impact shows on literacy sector. Northern part was equally distributed in rural female literacy, but southern part slightly different. All of things represent 0.06544 Gini Co-efficient which denotes low inequality of rural female literacy rate. Hugli was a colonial influence district from long time, and its impact also shown in literacy starcture. Rural female literacy equally distributed throughout the district. Gini Co-efficient in this perspective was 0.06261 which represent relatively very low inequality in rural female literacy rate due to Srerampur Missionary like works from colonial time. Haowrah is an oldest city in west Bengal and urbanization touch the rural literacy. It is also interfluves area which gives a different dimension in development through agriculture. Hawrah district also advance in industrialization. All the things were responsible for low inequality in rural female literacy for that Gini Coefficient was 0.05917.

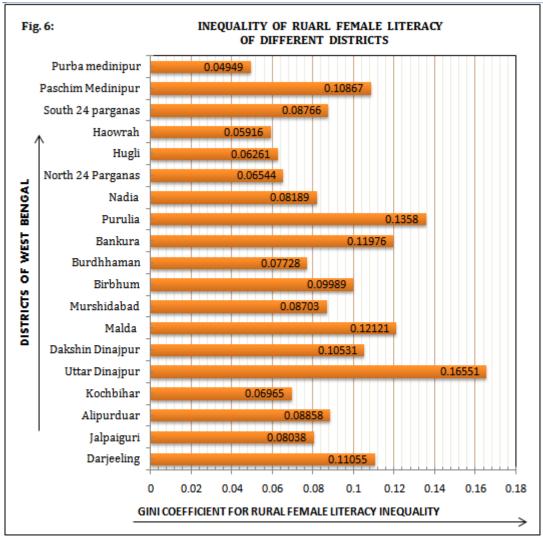


Source: Calculated from Census 2011 data [5]



Source: Calculated from Census 2011 data [5]

South 24 Parganas is extreme southern district of West Bengal and majority of area covered by Sunderban Mangrove forest land on Gangatic delta. So including education all development could not reach all people due to island feature. In spite of it Gini Co-efficient was 0.08766. It was happened due to highly populated villages in north of the district and low populated relatively inaccessible villages in south of the district. Purba Medinipur district was relatively high rural female literacy and inequality in rural female literacy was relatively low. Over all development in education create modernization in education and its impact also notified in rural female literacy rate. Gini Coefficient was 0.04949 which is lowest in district level in West Bengal. That means rural female literacy inequality was relatively very low compare to other district.



Source: Calculated from Census 2011 data [5]

Note: Jalpaiguri District is divided in West Jalpaiguri as Jalpaiguri and East Jalpaiguri as

Alipurduar

Bardhhaman is divided in Purba Bardhhaman and Paschim Bardhhaman

Paschim Medinipur is divided in western part as Jhargram and eastern part as Paschim Medinipur

VI. RURAL FEMALE LITERACY RELATION WITH RURAL FEMALE LITERACY INEQUALITY

There was negative correlation between rural female literacy and rural female literacy inequality. That means, if rural female literacy rate was increased then Gini coefficient of rural female literacy is decreased and rural female literacy rate was decreased then Gini Coefficient was increased. So it was opposite relationship. Here Literacy rate was independent variable and Gini Coefficient was dependent variable. Trend line of graph of Diagram was shown negative relationship. It was proved from the correlation equation of trend line that is

$$Y = -0.003x + 0.2649$$

Where Y was Gini Coefficient axis and X was Literacy rate axis which was shown negative relationship. Coefficient of Correlation was shown negative relationship between rural female literacy rate and Gini Coefficient of rural female literacy inequality. The value was

$$r = -0.85241$$

Uttar Dinajpur district had highest inequality rural female literacy found in West Bengal. It was also low rural female literacy rate with compare to other district. It was the only cause of Muslim community under development. But Purulia district had different cause for inequality of rural female literacy. Tribal related problem was the major cause for inequality in rural female literacy. Purulia was second highest Gini coefficient

value in rural female literacy. Malda received third in Gini Coefficient with same cause of Uttar Dinajpur. Purba Medinipur district was lowest inequality found in rural female literacy due to proper educational development seen long time in West Bengal. Same situation found in Haora, Hugli and North 24 parganas district. These were 2nd, 3rd and 4th lowest inequality in rural female literacy. All the cause of urbanization was responsible for that.

TABLE 1: CORRELATION BETWEEN GINI COEFFICIENT FOR INEQUALITY OF RURAL FEMALE LITERACY AND RURAL FEMALE LITERACY RATE OF DIFFERENT DISTRICTS OF WEST BENGAL R² DISTRICTS Gini Co. RFLR Υ R Remark Darjeeling 0.11055 59.08 Jalpaiguri 0.08038 53.51 Alipurduar 0.08858 54.91 Kochbihar 0.06965 58.04 Uttar Dinajpur 0.16551 40.52 Dakshin Dinajpur 0.10531 56.26 Malda 0.12121 45.88 0.003x + 0.2649 Murshidabad 0.08703 49.47 High Medium Birbhum 0.09989 54.11 Bardhaman 58.56 -0.852410.7266 Degree Negative 0.07728 Correlation Nadia 0.08189 59.34 North 24 Parganas 0.06544 64.21 Hugli 0.06261 64.75 Bankura 0.11976 51.41 Purulia 0.13580 41.21 Haora 0.05916 66.24 South 24 Parganas 59.70 0.08766 Paschim Medinipur 0.10867 60.76 Purba Medinipur 0.04949 71.56

Source: Calculated from Census 2011 data [5]

Note: Jalpaiguri District is divided in West Jalpaiguri as Jalpaiguri and East Jalpaiguri as Alipurduar

Bardhhaman is divided in Purba Bardhhaman and Paschim Bardhhaman

Paschim Medinipur is divided in western part as Jhargram and eastern part as Paschim Medinipur

VII. CAUSES DIFFERENT FEMALE POPULATED VILLAGES AND RELATION BETWEEN PERCENTAGE SHARE OF FEMALE POPULATION & FEMALE LITERATE POPULATION

Discursion is why rural female literacy not achieves the proper destination in west Bengal. From some researchs and thoughts are help researcher for his discursion. Point out some definite causes of low or variance or gender dispersion of female literacy in rural area according to some people.

According to Ramdeep Kaur, young writer about the sociology and economics, the causes of low literacy in rural female are come out through her different article. The negative attitude of parents towards the girl child and her education is one of the major reasons of low female literacy rate in India. In most of the families, boys at home are given priority in terms of education but girls are not treated in the same way. Right from the beginning, parents do not consider girls as earning members of their family, as after marriage they have to leave their parents' home. So their education is just considered as wastage of money as well as time. For this reason, parents prefer to send boys to schools but not girls.[6]

Shibu Cheruvelli is an Executive Director at Agency for Integrated Development Initiatives (AIDI). According to him, Poverty is the root cause of many problems in India and also of low female literacy rate. More than one-third of population in India is living below the poverty line. Though government is putting efforts to make the primary education free but still parents are not ready to send their girls to school. To this is connected the accessibility to schools. In most of the rural areas lack of easy accessibility to school is another

reason for low female literacy rate. Parents do not prefer to send girls to schools if these are located at a far distance from their village or home. [7]

B.S. Vasudeba Rao, Professor of Adult and Continuing Education, Andra University, find out some factors that are responsible for rural female literacy low. Village girl children are not allowed to go outside the house and village because it is a social restricted in rural area, parents go to their workplaces and household activities are undertaken by the young female children inspite of go to school. Girls child are caring of younger ones at home with sharing of family responsibilities after the absent of elders in the family which infect the learning time period. Due to of thing, rural female literacy are not at the up to the mark. [8]

All are the major causes of rural female literacy related problem. It is only solve through increase female student teacher ratio, awareness of female literacy within the parents, spreading awareness of female literacy in rural area though specific media, Increase female empowerment in rural area, etc. Rural Female have to social, cultural, economic, and employment self empowerment to increase rural female literacy in West Bengal dramatically which reduce low female literacy, variance of low female literacy, gender disparity in literacy, urban-rural female disparity in literacy and domestic violence against women. [9]

VIII. PROBLEM SOLVING AND RECOMMENDATIONS

The development of any nation or region is indicated by the level of education and that too of both genders. That is why 'education for all' is strongly recommended and focused on by our government. India has made a considerable progress in this sector and with all the efforts the literacy rate grew to 74.04% in 2011 from meager 12% in 1947. But still, India has not achieved what it should have during this period. First of all, the progress made in this sector is very slow. Secondly, there a considerable gap between male and female literacy rates in India. [9] It has been estimated that at the current rate of progress, India will attain universal literacy only until 2060. As per the census of 2011, an effective literacy rate in rural West Bengal for men was 78.44% whereas for women it was 61.98%. Though there has been seen a substantial increase in the number of literate women and but this gap is not narrowing, it still persists. [10] Females constitute about 50% of country's human resource but lack of education snatches their chance to be a part of the progress and development of West Bengal. This means our pace of progress is less than the required pace. Even if females do not use education to work, total illiteracy has a huge negative impact on our society.[11]

Missionary organisations from the British period have been dominating in educational sector in Darjeeling area. But interior areas of Darjeeling Himalaya have relatively low female literacy. So, in hilly area, rural female literacy not compare with other section of West Bengal.[12] Tharubhira, Gadhira, Bilaksh etc of Kharibari CD Block and Khok Lang Chat village of Matigara CD Block etc are tarai area of Darjeeling district facing rural female literacy problem for interior communication. Also they are majority in tribal group. Peoples take initiative step for reducing this type of problem to enrich the rural female literacy. Engo, Juranti, Nakhati, Son Gachhi, Aibhil, Nagaisuri, Chalauni, Samsing, Yongttong etc Tea Gardens villages of Matiali CD Block of Jalpaiguri district which are dominated by tea garden worker where female worker are require for tea plantation. For that rural female literacy are infected in this area. Villages of Majlispur, Panjipara, Mahua, Jaingaon etc of Goalpokhar Suddivision of Uttar Dinajpur, Fate Chandpur, Marupur, Khas Chandpur, Maheshpur, Khaltipur, Bahadurpur etc of Kaliachak Subdivision of Malda District and Malancha, Ratanpur, Ghoramara, Antar Dwipa, Adwaita Nagar, Napara etc of Sanserguni CD Block of Murshidabad District have Muslim dominated area. They are facing some socio-economic and socio-cultural problem against the female. Early marriage is the major problem in this area. So Female child could are not reach schools. They are engage in domestic work in their childhood. Belyadi, Durgu, Gutniya, Lupungdi, Chitahi, Mirdi, Narayanpur, Rahan, Tamakbera, Hesalber, Beko, Kanriyar etc villages of Jhalda CD blocks are tribal dominating specially Saotal. They are facing big problem in rural female literacy and gender disparity in literacy relatively very high due to under development all aspect of female.

On the study, researcher recommended that planning should be taken in micro level spatial organization that means village level planning. Female literacy of Ruppur gram panchayet is 67.59% and there are 256 villages. But there 200 villages female literacy is 37.87%. So there have no value for State level, district level and panchayet level planning of literacy. Village to village female literacy problem are changed due to different socio economic condition. Government should reduce the distance between home and school for girls. Number of Girls school is not enough for enrichment of rural female literacy. Government should take important role to build residential schools for girls. Where male literacy high, female literacy is relatively low than male but gap is also low. It is seen most of the Purba Medinipur district villages. In other case where male literacy low, female literacy very but gap is very high. Most of villages of Purulia district are the example of this type of scenario. Researcher could not say that only female literacy is increased, introduce education for all. All sectors of society if literate then its impact is shown on female literacy. That means Awareness is important for the literacy. People could not know the important of female literacy for society and family if people not literate and educated. Globalization and Modernization is the concept where rural area major needs for their broad

thought. Urban areas are the facility landscape of globalization and Modernization. If rural people are getting frequent contact with urbanization, then it will be no longer time when rural areas are modernized in thoughts and logic. Its benefit also gains rural female literacy. In 2016, number of rural female student are increased approximately 25% in graduate and post graduate section of urban areas of west Bengal (Census 2011). So, smooth the accessibility of rural area with nearest urban area.

63 villages out of 687 villages in Darjeeling, 32 villages out of 406 villages in Jalpaiguri, 18 villages out of 327 villages in Alipurduar, 35 villages out of 1194 villages in Kochbihar, 641 villages out of 1494 villages in Uttar Dinajpur, 144 villages out of 1631 villages in Dakshin Dinajpur, 544 villages out of 1772 villages in Malda, 179 villages out of 2167 villages in Murshidabad, 254 villages out of 2459 villages in Birbhum, 87 villages out of 2492 villages in Bardhhaman, 46 villages out of 1308 villages in Nadia, 18 villages out of 1528 villages in North 24 Parganas, 19 villages out of 1866 villages in Hugli, 752 villages out of 3823 villages in Bankura, 1134 villages out of 2667 villages in Purulia, 4 villages out of 644 villages in Haora, 62 villages out of 2044 villages in South 24 Parganas, 817 villages out of 8695 villages in Paschim Medinipur and 12 villages out of 2998 villages in Purba Medinipur are infected in below 40% female literacy and we need to treat as micro level treatment for solve the problem.

IX. CONCLUSION

In West Bengal, there is inequality between percentage share of total female population and female literate population of average individual village more or less every district. That means percentage of total female population of a village in respect to district total female population is not equal or near to equal with percentage of female literate population in respect to district female literate population of same village. It is found averagely all over the West Bengal more or less. Kalkata sounder and south West Bengal is comparatively low Inequality found in this respect. Tribal dominated Purulia, Bankura and Jhargram districts and Muslim dominated Uttar Dinajpur and Malda are facing comparatively high inequality in this purpose. Inaccessibility of Modernisation and Urbanisation is the main cause of this type of inequality which comes from Socio-economic and Socio-cultural status of individual families. With increasing of distance from the urban point, rural female literacy inequality is increased natural way. There is Negative relationship between Percentages of Rural Female Literates to individual village populations and inequality of Rural Female Literacy of West Bengal". Researcher calculates. Researcher's findings were shows some recommendation for different organisations. They are reducing the rural female literacy variance with help of proper centralized educational planning and administration. Increased opportunity for women empowerment in rural area of west Bengal, then women are motivated to educate. Modernization of education for women must be reached more in rural West Bengal. Tribal and Minority dominated villages will be taking initiative role to develop women literacy for own interest. Completely remove early marriage concept of female child from rural area of West Bengal. Government will take more initiative steps for disparity rural female literacy from rural male and urban female. Rural schools will be taking valuable work for development purpose of rural female literacy. Women literacy awareness must be generate in rural West Bengal among the organized and unorganized sectors. Literacy will be reached to interior and small populated villages of West Bengal.

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