

**Gender and Development:
Aspects of Social and
Economic Change**

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Edited By

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NEW DELHI PUBLISHERS

New Delhi, Kolkata

Gender and Development: Aspects of Social and Economic Change by *Prof. Pranab Kumar Chattopadhyay and Daya Shankar Kushwaha* published by New Delhi Publishers, New Delhi.

© Authors

First Edition 2019

ISBN:

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New Delhi Publishers

90, Sainik Vihar, Mohan Garden, New Delhi – 110 059

Tel: 011-23256188, 9971676330

E-mail: ndpublishers@gmail.com

Website: www.ndpublisher.in

Branch Office

216 Flat-GC, Green Park,
Narendrapur, Kolkata – 700103

*Dedicated to
the Memory of
Prof. Amiya Kumar Dasgupta*

Acknowledgement

This book is a collaborative effort between the A.K.Dasgupta Centre for Planning and Development (a centre sponsored by the NITI AAYOG, Government of India) and the authors of the papers based on the field studies conducted by them. We are grateful for their valuable inputs and co-operation. We are thankful to the two advisers from the NITI AAYOG, Govt. of India to the Centre, for support and guidance for undertaking research works. We are thankful to the Upacharya Prof. Bidyut Chakrabarty and the Registrar of the Visva-Bharati University Shri Saugata Chattopadhyay for support and encouragement. We also acknowledge our debt to the different sections of Visva-Bharati for extending necessary help in carrying out activities.

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Ability to Repay Loans in the Non-Agricultural Sector in the District of Hooghly and Bankura

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Abstract

The aim of this paper is to investigate the determinants of the borrower's ability to repay loans to the banks in the district of Hooghly and Bankura in West Bengal. For this purpose we have collected the primary data from 128 sample borrowers who have taken loans from Commercials and Regional Rural bank. We employ the probit and logit models to identify the main determinants that influence ability to repay loans of the borrowers. The result of this study shows that the ability to repay loans of the borrowers is influenced by education, proportion of investment financed by loan, worker population ratio, productive use of loans, the growth rate of income and the entrepreneurship is run by male.

Key Words: Ability to repay, Repayment, Wilful, Investment, Overdue

I. Introduction

In the rural areas, we see that many institutional credit sectors are seriously breaking down due to presence of bank defaults or overdues. As a result the banking facilities cannot be increased in rural areas and further it cannot be extended to different corners of the society in the rural areas. So ability to repay loans to the banks is the vital factor to more build up the society. And that is why, in this paper we want to find out the different factors that help to increase the borrower's ability to repay loans to the banks.

The ability to repay loans to the banks is the explained variable in our study in our logit model of ability to repay. But, what can be the appropriate index of the ability to repay loans to the banks? Different

authors have used different indices. Here we have used the growth rate of income of the borrowers as an index to indicate the ability to repay loans to the banks. We have identified those borrowers as having ability to repay loans to the banks whose income has been increased at least 10% or above over the average income of previous five years prior to the intake of bank loans.

But why do we take 10% increase in the level of income as the criterion of the ability to repay loans to the banks? The reason is very clear. Let the institutional rate of interest charged for the borrowing of loans is approximately 10%. Since, in the time of 2009-2010, the interest rate of regional banks where the borrowers have taken their loans was around 10%. So if the borrower can earn a return of 10% by investing the borrowed amount, then it will be possible for them to return the loan in time.

However, the variable ability to repay loans to the banks is a dichotomous variable taking two values namely 1 if the borrowers get an increase in their growth rate of income of 10% or more and 0 if the borrowers do not get an increase in their growth rate of income of 10%.

The paper is organized as follows. Section II presents the objective of the study. Section III discusses the methodology and data. Section IV considers the model of ability to repay loans to the banks, section V, VI and VII present the empirical results, policy recommendation and conclusion respectively.

II Objective of the Study

It attempts to investigate whether the borrowers are able to repay loans in Hooghly and bankura districts (West Bengal). It looks into the increase in income of borrowers who properly utilised their loans for productive purposes in non-agricultural sector. Besides, it attempts to improve the performance in the banking sector.

III Methodology

The analytical frame work:

$P_i = P(Y_i = 1) \Rightarrow$ The probability that the i^{th} borrower is able to repay the loans to the bank.

$1 - P_i = P(Y_i = 0) \Rightarrow$ The probability that the i^{th} borrower is not able to repay the loans to the bank.

The conditional probability that the borrower is able to repay loans to the banks, given other things (i.e., X_i) is equivalent to the conditional expectation that the borrower is able to repay loans to the banks, given X_i . That is,

$$P_i = \Pr(Y_i = 1 | \Phi_i) = E(Y_i | \Phi_i) \quad \dots(1)$$

The objective of the binary response model is to capture this conditional expectation.

From the above discussion it is clear that linear regression model makes no sense as a binary response model. Let us consider a column vector X_i of length k (number of explanatory variables) that belongs to the information set Φ_i including the constant term or equivalent. Then the linear regression model would specify $E(Y_i | \Phi_i)$ as a probability, and the probabilities must lie between 0 and 1. Though the quantity $X_i \beta$ cannot be interpreted as a probability and lie between 0 and 1, several empirical studies (for example, Bowen and Finegan, 1969) simply use OLS to estimate what is called (rather inappropriately) Linear Probability Model (LPM).

If Y_i stands for the fact that the i^{th} borrower is able to repay loans to the banks and X_i is a set of explanatory variables (we parenthesize all explanatory variables determining the fact the i^{th} borrower is able to repay loans to the banks within X_i) and if the relationship between Y_i and X_i is specified by a linear relationship, we can write

$$Y_i = X_i' \beta + U_i \quad \dots(2)$$

where

$$Y_i = \left\{ \begin{array}{l} 1 \text{ if the } i^{\text{th}} \text{ borrower is able to repay loans to the banks.} \\ 0 \text{ if the } i^{\text{th}} \text{ borrower is not able to repay loans to the banks.} \end{array} \right\}$$

If $E(U_i) = 0$ for all i as required in the classical linear regression model, it follows from equation (2)

$$E(Y_i|X_i) = 0 \cdot (1 - P_i) + 1 \cdot P_i = P_i = X_i' \beta \quad \dots(3)$$

The basic condition we need for equation (3) is that

$$0 < E(Y_i|X_i) < 1$$

In order to formulate a probabilistic model that the borrower is able to repay loans to the banks we would like to transform $X_i \beta$ into a probability. That is, we use the transformation function F such that

$$P_i = P(Y_i = 1) = F(X_i' \beta) \quad \dots(4)$$

The binary response models that we would like to discuss consist of a transformation function $F(X)$ applied to an index function that depends on the independent variables (determinants of ability to repay loans) and the parameters of the model. An index function is simply a function that has the properties of a regression function, whether linear or nonlinear. Thus, a very general specification of a binary response model is

$$E(Y_i|\Phi_i) = F\{h(X_i, \beta)\}, \quad \dots(5)$$

where $h(X_i, \beta)$ is the index function.

A more restrictive, but much more commonly encountered specification is

$$E(Y_i|\Phi_i) = F(X_i' \beta). \quad \dots(6)$$

In this case, the index function $X_i' \beta$ is linear and $E(Y_i|\Phi_i)$ is simply a nonlinear transformation of it. Although $X_i' \beta$ can in principle take any value on the real line, $F(X_i' \beta)$ must lie between 0 and 1. As $F(X_i' \beta)$ is a nonlinear function, changes in the values of the elements of X_i , say X_{ij} , necessarily affect $E(Y_i|\Phi_i)$ in a nonlinear fashion. Specifically, when $P_i = E(Y_i|\Phi_i)$ is given by equation (8), its derivative with respect to X_{ij} is

$$\frac{\partial P_i}{\partial X_j} = \frac{\partial F(X_i' \beta)}{\partial X_j} = f(X_i' \beta) \cdot \beta_j \dots (7)$$

In the probit model the term β_i appears as a multiplicative factor and determines the sign of the effect. The transformed β_i can be used to find the effect of a unit change in the exogenous variable on the probability of ability to repay.

The Data

The study has been conducted in the district of Hoogly and Bankura in the state of West Bengal. There are 19 districts in the state of West Bengal. We have chosen two districts, namely, Hooghly and Bankura, simply purposively. The rationale behind the choice of these districts lies in the consideration of economic condition. Contrasted with Bankura, the district of Hooghly is economically more advanced and prosperous in respect of agriculture, industry and infrastructural aspects of development.

We have collected the primary data for the year 2009–2010 from one hundred twenty eight sample borrowers. We have selected the districts purposively. From each district, one subdivision was randomly selected. These two subdivisions are Arambagh from the district of Hooghly and Visnupur from the district of Bankura. From each subdivision two blocks were randomly selected. We have chosen Khanakul – 1 and Pursura as two blocks from Arambagh subdivision of Hooghly. From each of these two blocks, we have chosen nine borrowers randomly. Again we have chosen Indus and Jaypur as two blocks from Visnupur subdivision of Bankura. From each of these two blocks, we have chosen forty six borrowers randomly. Thus, a sample of 128 borrowers was selected for the study.

Primary data were collected for non-agricultural year 2009-2010 from 128 sample borrowers who took loans from the formal sector such as commercial, regional rural and co-operative bank branches operating in the two blocks through personal interview on the basis of a pre-structured questionnaire.

IV Model Specification

Ability to repay loans to the banks is affected by a number of factors. We have considered it for all households, households for Hooghly district and households for Bankura district. The analytical models of ability to repay loans to the banks have been considered as follows.

$$\begin{aligned}
 ARTPLOANS = & \gamma_0 + \gamma_1 AGE + \gamma_2 EDUCATION + \gamma_3 PINFLOAN \\
 & + \gamma_4 WPR + \gamma_5 DINTRATE + \gamma_6 CASTE + \gamma_7 NALOANUSE \\
 & + \gamma_8 GRATEINCOME + \gamma_9 RIPCFMEXP + \gamma_{10} ENTRPRBMF \\
 & + error \qquad \qquad \qquad \dots(8)
 \end{aligned}$$

V Empirical Result and Discussion

In this section we are going to provide with the empirical results on the ability to repay loans in the non-agricultural sector in the district of Hooghly and Bankura. Refer to the table – 1, 2 and 3 below.

Consider first the model of all borrowers. Refer to table 1, we consider the goodness of fit of the fitted regression line to a set of collected data. The coefficient of determination R-squared is a measure that tells how well the sample regression line fits the data. Refer to table 1 the empirical value of R-squared statistics is 0.73. This means that about 73% of the variation in the response variable is explained by the explanatory variables. In the case for the model of borrowers of Hooghly district we see that the empirical value of R-squared statistics is 0.64. Again, refer to the table 2 where the empirical results for borrowers of Bankura district are presented. In this case the value of R squared is 0.85. This implies that the sample regression line fits the data very well.

We note that the age (AGE) in the combined districts or in the individual districts is not at all statistically significant in affecting the probability that the households are able to repay loans. Again the difference in the interest rate (DINTRATE), rate of increase in per capita family expenditure (RIPCFMEXP) and caste (CASTE) variables are not statistically significant in affecting the probability that the households are able to repay loans in both the districts.

Consider the coefficient of education (EDUCATION) in our logit model of ability to repay. It is found to be positive and statistically significant at 5% level of significance. This implies that education has got statistically significant impact on the probability that the households are able to repay loans in the combined districts and in the individual districts.

Table – 1: *Ability to Repay Loans to the Banks in the Districts of Hooghly and Bankura*

Dependent variable is ATRPLOANS (Ability to Repay Loans)						
	Households in the Districts of Hooghly and Bankura Combined Together					
	Number of Observations =128			Number of Observations = 36		
Regressor	Coefficient	Standard Error	t-Statistic	Coefficient	Standard Error	t-Statistic
Constant	-1.8417	1.3217	-1.3934	-3.5933	47.3965	-0.0758
Age	-0.0176	0.0161	-1.0898	0.0091	0.0191	0.4767
Education	0.1451**	0.0621	2.3361	0.2139**	0.0968	2.2099
Grateincome	0.7215**	0.3304	2.1841	0.7527*	0.2251	3.3435
Pinfloan	0.8422*	0.2969	2.8363	0.6419*	0.1914	3.3544
Wpr	0.3381**	0.1476	2.2910	0.0991**	0.0485	2.0426
Ripcfmexp	-0.00001	0.0001	-0.3177	-0.00001	0.0003	-0.1562
Dintrate	-0.0083	0.0227	-0.3679	0.0118	0.0482	0.2447
Caste	-0.0475	0.4309	-0.1102	0.7099	0.7620	0.9317
Naloanuse	0.8717*	0.3278	2.6595	0.8544*	0.3217	2.6559
Entrprbmf	-0.0951*	0.0358	-2.6595	-0.0775*	0.0296	-2.6152
			Hooghly and Bankura Combined Together			Hooghly
Mean of ATRPLOANS			0.51563			0.41667
Mean of fitted ATRPLOANS			0.44531			0.38889
Goodness of fit			0.72656			0.63889
Pseudo-R-Squared			.17792			0.10068

* stands for significant at 1% level;

** stands for significant at 5% level;

*** stands for significant at 10% level.

Source: Author's own calculation.

The coefficient of the growth rate of income (GRATEINCOME) in the logit model of ability to repay appears to be positive and statistically significant at 5% level of significance in both the districts. This implies that there is a direct relation between the growth rate of income and the ability to repay and this hypothesis is accepted empirically in both the districts. The log of odds ratio in favour of ability to repay loan and odds ratio are found to be increasing and so is the probability that the households are able to repay loans.

Table – 2: *Ability to Repay Loans to the Banks in the Districts of Hooghly and Bankura*

Dependent variable is ATRPLOANS (Ability to Repay Loans)			
	Households in the District of Bankura Number of Households = 92		
Regressor	Coefficient	Standard Error	t-Statistic
Constant	-1.0849	2.4260	-0.4472
Age	-0.0109	0.0277	-0.3923
Education	0.1718*	0.0579	2.9693
Grateincome	0.6205*	0.2096	2.9602
Pinloan	0.7051*	0.2252	3.1315
Wpr	0.3422**	0.1652	2.0716
Ripcfmexp	-0.0005	0.0006	-0.8469
Dintrate	-0.0235	0.0387	-0.6063
Caste	-0.9557	0.8203	-1.1650
Naloanuse	0.8525*	0.3113	2.7389
Entrprbmf	-0.1035*	0.0350	-2.9615
Mean of ATRPLOANS	0.54839		
Mean of fitted ATRPLOANS	0.54839		
Goodness of fit	0.84946		
Pseudo-R-Squared	0.52237		

* stands for significant at 1% level;

** stands for significant at 5% level;

*** stands for significant at 10% level.

Source: Author's own calculation.

The probability that the households are able to repay loans increases marginally by 0.17%, 0.18% and 0.15% respectively in

the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura.

The coefficient of the proportion of investment financed by loans (PINFLOAN) is positive and statistically significant at 5% level of significance in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura. Thus, for both the districts the hypothesis that proportion of investment financed by loans affects directly the probability that the households are able to repay loans is accepted. The probability that the households are able to repay loans increases marginally by 0.19%, 0.16% and 0.17% in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura respectively.

Table – 3: *Logit, Odds Ratio, Probability and Marginal Change in Odds Ratio and Probabilities in ATRPLOANS in the Districts of Hooghly and Bankura*

	Households in the Districts of Hooghly and Bankura		Households in the District of Hooghly		Households in the District of Bankura	
Logit	0.5008		0.8655		0.1684	
Odds Ratio	1.6501		2.3762		1.1835	
Probability	0.6227		0.7038		0.5420	
	Change in		Change in		Change in	
Regressor	Odds Ratio	Probability	Odds Ratio	Probability	Odds Ratio	Probability
Constant	-84.1446	-0.4316	-97.2492	-0.8800	-66.2078	-0.2627
Age	-1.7432	-0.0041	0.9142	0.0022	-1.0816	-0.0026
Education	15.6190	0.0340	23.8486	0.0524	18.7488	0.0416
Grate income	105.7567	0.1691	112.2639	0.1843	85.9919	0.1503
Pinfloan	132.1492	0.1974	90.0145	0.1572	102.4110	0.1707
Wpr	40.2295	0.0792	10.4123	0.0543	40.8056	0.0829
Ripcfmexp	-0.0045	0.0000	-0.0040	0.0000	-0.0534	-0.0001
Dintrate	-0.8309	-0.0020	1.1867	0.0029	-2.3197	-0.0057
Caste	-4.6386	-0.0111	103.3869	0.1739	-61.5446	-0.2314
Naloanuse	139.1027	0.2043	135.0058	0.2093	134.5496	0.2064
Entrprbmf	-9.0755	-0.0223	-7.4601	-0.0190	-9.8307	-0.0251

The worker population ratio (WPR) has got a positive and statistically significant coefficient in the logit model of ability to repay. This implies that the worker population ratio affects favourably the probability that the households are able to repay loans in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura. The marginal increases in probability that the households are able to repay loans are respectively 0.08%, 0.5% and 0.08% for the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura.

The rate of increase in per capita family expenditure, the difference in the interest rate and caste are all statistically insignificant in affecting the probability that the households are able to repay loans in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura.

We note that the coefficient of nature of loan use (NALOANUSE) is positive and statistically significant in our estimated logit model of ability to repay. This means that the hypothesis that the productive use of loans increases the probability that the households are able to repay loans in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura is accepted empirically. The marginal increases in the probability that the households are able to repay loans are 0.20%, 0.21% and 0.21% respectively in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura.

The coefficient of the dummy variable ENTRPRBMF (= 1, if the entrepreneurship is run by male and 0, otherwise) is seen to be negative and statistically significant at 1% level of significance. This implies that the male entrepreneurship in the non-agricultural sector of the rural area is less likely to increase the ability to repay loans compared to the female entrepreneurship. In other words, if the entrepreneurship is run female the probability that the households are able to repay loans is greater than the probability that the households

are able to repay loans in case the entrepreneurship is run by male. The log of odds ratio in favour of ability to repay loan and hence odds ratio in our estimated logit model of ability to repay increase and so does the probability that the households are able to repay loans. The probabilities that the households are able to repay loans for the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura decrease by 0.02%, 0.02% and 0.03% respectively.

We also note that in the districts of Hooghly and Bankura combined together and in the individual districts of Hooghly and Bankura the probabilities that the households are able to repay loans are 0.62, 0.70 and 0.54. Thus, in the district of Bankura the probability that the households are able to repay loans in the non-agricultural sector is smaller than that in the district of Hooghly.

We would like to sum up this section by noting some important points of interest.

First, education has positive effect on the ability to repay loans to the banks. Second, the proportion of investment financed by loans leads to create some positive impact on ability to repay loans to the banks. Third, the worker population ratio has a positive effect on the ability to repay loans to the banks. Fourth, the productive (non-productive) use of loans has stimulating (depressing) effect on ability to repay loans to the banks. Fifth, the income generation as measured by the growth rate of income has a positive impact on the ability to repay loans to the banks. Sixth, Entrepreneurship run by male (female) is seen to depress (stimulate) the ability to repay loans to the banks.

VI Policy Recommendations

We are now in a position to prescribe some policy measures that would help the ability to repay loans to banks of the borrowers. In formulating them we shall be guided by the empirical estimates of our model.

1. Education has a positive effect on the ability to repay loans to the banks. It brings the outer world in the arena of the investors. They get much information through it and it acquaints them with the possible knowledge that results in fruitful effect from production. If proper training is arranged, the investor will come to know the proper input-mix of production from which the optimum return can be found. Therefore, imparting educational training to the investors in non-agricultural sector will stimulate income generation. As a result, they will be able to repay their loans to the banks in time.
2. Not merely the investment but the investment at the desired level is the necessary condition for stimulating the ability to repay loans to the banks. So we suggest that the banks should provide investors with loans sufficient to finance the projects that they have planned for. Under-investment or investment at the sub-optimal level will mean insufficient income generation. Due to under-investment, the ability to repay loans to the banks will decrease.
3. We have seen that the worker population ratio has a positive effect on ability to repay loans to the banks. Creation of jobs or employments will increase the worker population ratio and reduce the dependency ratio of the family. Obviously, borrowers will be able to repay loans in time.
4. Productive use of loans has always a positive and favourable effect on the ability to repay loans. The government or the appropriate loan sanctioning authority should be watchful so that the borrowers do not diversify the loans from productive to non-productive activities.
5. The growth rate of income has a positive impact on the ability to repay loans to the banks. If income is generated, it is likely to create ability to repay the loans among the households. So as the first step there must be an increase in the income

generation that will help to improve the ability to repay loans to banks.

VII Conclusion

In the non-agricultural sector, though this study relates only to the district of Hooghly and Bankura, but the findings are fairly general in the rural areas. From the empirical findings we found that the probability that the households are able to repay loans to the banks is directly related with the growth rate of income that is income generation. So reduce the number of defaulters, all attempts should be employed to increase the ability to repay loans to the banks. This implies that the income generation must be the necessary condition for the repayment of bank loans. And this income generation takes place at a sufficient level only through the productive use of loans. Further, empirically we get an interesting result that some borrowers did not repay their loans in time though they have got the income generation sufficiently. They are called wilful defaulters. For these reasons the borrowers must be made conscious and it is only possible through regular campaign and proper education.

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Gendered Vulnerability of Climate Change:

Experiences of the Women in the Sundarbans

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Abstract

This paper is an attempt to investigate into the effects of climate change on the women of the area under review based on data and information collected from field visits and other secondary sources. Being exposed to the Bay of Bengal on the south and located on the mouth of the Ganges, the Islands as well as their poor marginal settlers are comparatively more vulnerable to climate change. This is evident from frequent and severe storm surges, tidal surges and cyclones. These forces cause severe deluvion, erosion and breaching of embankments protective to the settlements. The female counterparts are compelled to shoulder the responsibilities for continuation of their own life and the lives of the minors and aged members of her family. The nutrition for their survival are managed either from land or from water as fishing or collecting aquatic animals. In addition, living within saline water environment, collection of potable water is an added responsibility. The female folk of the other households, whose male members migrate seasonally to various cities for earning, also follow the same fate. All the activities enhance the time of exposure of these poor women to the intense diurnal temperature, prolonged rain and speedy blowing wind of cyclone, remaining long time with keeping half of the body under saline water and wading in water for weeks during flood. Temporary shelter on the embankments does not spare them from remaining exposed under scorching sun and torrential rain. Thus the women of those areas are more vulnerable to climate change more than their male associates. Such studies are new in the climate change arena and findings of the study may prove helpful in understanding gendered dimension in climate change.

Keywords: Climate change, Gendered vulnerability, Seasonal migration, Adaptation strategy

Introduction

Climate change is considered now as one of the most important global environmental concerns because of its growing impact on people. Changes in climatic variables and catastrophic climatic events in coastal areas make women more vulnerable than men during pre and post disaster period (Lambrou and Piana 2006; Neumayer and Pluemper 2007; Enarson 2009; Lambrou and Nelson 2010; Kapoor 2011; Alston 2013). Gendered difference in vulnerability and adaptive capacity has been confirmed by the Intergovernmental Panel on Climate Change (IPCC) in their recent Fourth Assessment Report on Climate Change (Adger et al. 2007). Gendered approach in climate change and studies related to environment and development highlight strong ties between women and nature (Marcoux et al. 1998; Fordham 2004; Brody and Esplen 2008; Quisumbing and Pandolfelli 2010; Chindarkar 2012; Resurrección 2013; Meinzen-Dick et al. 2014; Mckune et al. 2015) such that gendered inequalities are likely to intensify with unabated climate change (Denton 2002; Mckune et al. 2015).

Gender has been considered as important parameter in programs concerned to mitigation and adaptation strategies of different international organizations recently. After a long period of being gender blind, now there is growing literature on gender and climate change (Parikh 2007; WRI 2007; WEDO 2007; UNISDR 2008; Oxfam 2010; FAO 2010; UNDP 2010; HBF 2010) all over the world. Few studies also claim that there is need of advancement of gender and climate change study distinctively (Greer 1984; World Bank 1991; Kabeer 1994; Agnes 1999; Jain 2006; Kapoor 2011). Climate change affects nutritional and livelihood security of women (Alderman 2010; Blackwell 2010; Lloyd et al. 2011) especially due to the role that women play in their family (Glazenbrook 2011). They are overburdened with their works starting from maintaining household responsibility like cooking, washing, cleaning, taking care of children to earning for livelihood; they shoulder all those activities. They are greatly involved in climate sensitive subsistence sector –

agriculture and fishing, where even smaller changes in climate affects their livelihood in a greater way.

The current study has been taken in hand to bring out gendered vulnerability to changing climate in the Sundarbans finding the need and relevance of such studies in the area. A vast literature is available on impact of climate change in the Sundarbans, but a very few of them have focused on specific impact of such phenomena on women.

Study Area, Materials and Methods

The study area includes Sagar Island and Mousuni Island of the Indian Sundarbans, West Bengal. It lies in the southern most fringe of the South 24 Parganas District. Sagar Island is surrounded by Gabtala River in the eastern part, Baratala River in the western part while Baratala River lies in the western part of Mousuni Island and Pitt's creek lies in the west. Both the Islands confront Bay of Bengal in the south. The Mousuni Island, a *Gram Panchayat* of Namkhana Block and Sagar Island include 42 *mouzas* of Sagar Block of South 24 Parganas District of the Sundarbans (Fig. 1).

The methodology includes collection of primary data, mainly qualitative in nature. Focus Group Discussion (FGD) has been used as a qualitative research method to fulfill the objectives due to its inherent nature of exploring the opinions, experiences, ideas and impulses of individual participants. 7 *mouzas* have been selected from Sagar (Muri Ganga, Sumatinagar, Bankimnagar, Dhablat and Sibpur) and Mousuni Island (Mousuni, Baliara) based on the severity of erosion that was identified through a literature review, District Disaster Reports, field investigation and in consultation with experts. Open ended questionnaires are prepared according to the requirements of the study. The survey was conducted from December 2017 to December 2018. These *mouzas* have been chosen for the current study as they are prominent examples of bio-physical vulnerability in the Sundarbans. Two FGDs from each *mouzas* under the study area have been consulted to get the in-depth information of the research problem already mentioned. The key indicators taken

into account for unraveling vulnerability of women to changing climate are mentioned in table 1.

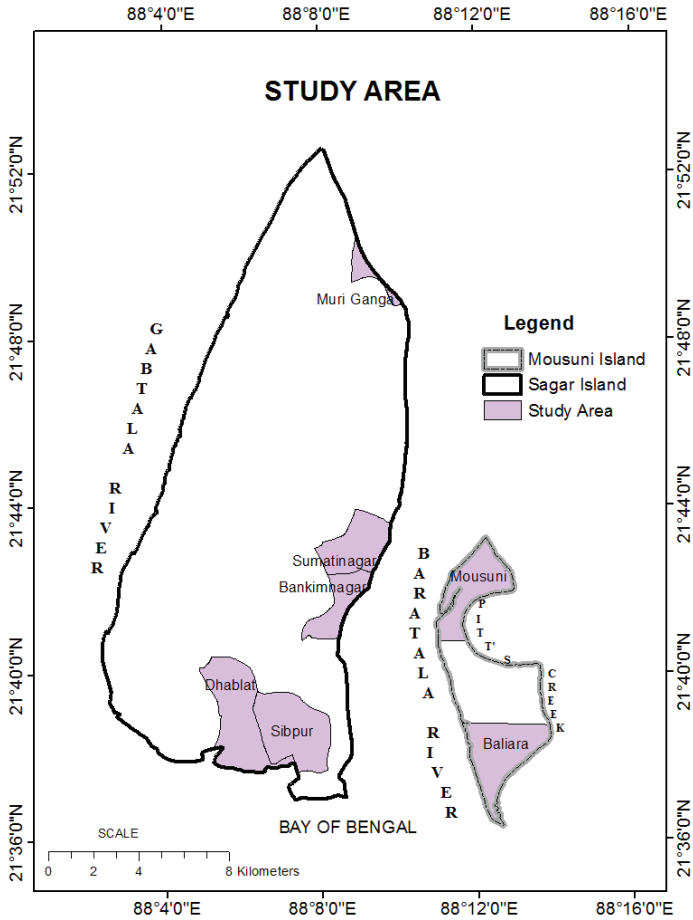


Fig. 1: The Study Area

Table - 1: *Key indicators of gendered vulnerability of women to climate change*

Sl. No.	Socio-economic Indicators	Gendered Vulnerability of Women
1	Multifunctional responsibility of women	Women perform several activities like collecting water for household, cooking, washing clothes and dishes, taking care of children, earning for livelihood.
2	Discrimination in availability of works	Climate change affects climate sensitive subsistence sector, agriculture and fishing activities are thus restrained which requires women (in case of extreme poverty in a household) to migrate in search of work (care-givers in cities).
3	Gender gap in wage	Women are paid less compared to men because of the social stigma related to their physical ability.
4	Gender gap in decision making	Women have lesser role to play in decision making as men counterparts are assumed to be wiser or women don't have such right.
5	Banking Facility	Women have lesser access to institutional banking. Women engaged in MNREGA find it difficult to access their own income from bank, leaving child at home.
6	Gender gap in education	Parents often neglect their girl child to higher education which only adds to illiteracy.
7	Drop out of girl students from school	Girls generally drop out before completion of secondary education as they are still considered as liability. They get married at lower age.
8	Longer exposure to intense diurnal temperature, rain and speedy blowing wind of cyclone	Women work for hours in the field for agricultural, fishing activities and under MNREGA scheme they dig soil. Climatic perturbation negatively affects their health.
9	Ability to cope up during flood	Women have to leave their houses during flood and have to stay in flood shelters or at school buildings. There they suffer from food scarcity for weeks and become completely dependent on puffed rice and jaggery provided by local authority.

10	Problem of privacy in flood shelter	About 10 to 50 households burgeon in one flood shelter which makes the female members quite embarrassed as they need greater privacy.
11	Effect of Climate variability in crop diversity	Higher tidal surge, storm and wave dynamics are related to frequent breaching and saline water intrusion in agricultural land directly affects the production (especially since <i>Aila</i>).
12	Role of climate change in availability of green leafy vegetables	Climate change affects agro-biodiversity and leads to decreased generation of green leafy vegetables.
13	Effects of saline water in breeding and growth of swimming animals	Saline water affects the breeding and growth of all kinds of fishes, other swimmers that thrive in fresh water ecosystem.
14	Expenditure on food	Decreasing food, vegetable production and availability of good catches make poor rural people dependent upon buying these items directly from market. This leads to greater expenditure on food consumption.
15	Food security during post-disaster period	Women suffer from extreme food insecurity in the post disaster period.
16	Water-borne diseases	Pregnant women are particularly vulnerable to water-borne diseases. They are 4 times likely to contract malaria and 18 times more likely if they are carrying the HIV virus 2. Malaria-induced maternal anemia is accountable for a quarter of maternal mortalities (Kapoor 2011).
17	Pre natal nutritional care	Calcium, protein, vitamin D, folic acid, iron are must for consumption during pregnancy, but poor marginal rural women do not consume such items more often.
18	Post natal nutritional health and its relation with child mortality	Nutritional deficiency is related to poverty, especially in the post disaster period. Women and children are 14 times more probable to die than men during a disaster (Peterson 2007).
19	Saline water and skin diseases	Women mostly earn as <i>meen</i> (prawn seed) gatherers which makes them more exposed to saline water for 4-6 hours leading to skin disease.

20	Medicinal facilities available	Lesser medical facilities available in the study area that compels women to go for quack doctors. Again insufficient transport and communication system, greater distance to reach health facility affects women health.
21	Expenditure on health	Dependant family members expend more on food than on health.
22	Absence of sanitary latrine and problem related to open defecation	Women feel embarrassed and insecure in absence of proper sanitary latrine.
23	Human trafficking and prostitution	Extreme poverty, scarcity of food, joblessness and consequent hopelessness brings women under the trap of human trafficking and prostitution.
24	Status of security	Women feel insecure during and after disaster in the form of teasing or sexual violence (Garai 2016).
25	Adaptation measures	Male migration is a climate change phenomena in the study area which leaves the total responsibility on women to adapt coping measures for dealing with the situation.

Result and Findings

Climate change in the study area intensifies the frequency and intensity of extreme weather events, leads to higher variability of temperature and rainfall and sea level rise. All these affect climate sensitive subsistence sector like agricultural production and fishing activity (IPCC 2007). Cyclonic events, storm surges and greater tidal ingression leads to frequent embankment breaching, saline water intrusion, and flooding in the study area. The elevation of the study area is mostly below 2 m above MSL, thus incessant monsoon rainfall from June till September also results in flood situation. Women suffer most amongst all during such events of climatic variation for their compulsion and the gendered stigma imposed upon them.

The result of the study reveals that in most cases women have multifunctional household responsibility like cooking, washing clothes and dishes, taking care of children on one hand and earning

for livelihood on the other. In such traditional rural society they render habitual responsibility to collect water, food, fodder and firewood. Most of the women walk for more than 2 km to tame potable water for the household. Poverty and food insecurity instigate women of the study area to work in the fields for additional earning of the family. Jinnatun Bibi from Bankimnagar stated “Do we have any leisure time? We are doing household work, collecting water from distant tube well, planting and harvesting paddy (subsistence farming), taking care of children, and also digging soil under MNREGA scheme for extra income. My husband is working in Kerala finding no other work opportunity in locality and the whole responsibility lies on my head. Who else will share?” Climate change has specific impact upon agriculture and fishing which in turn affects the livelihood of the people and forces them to migrate to distant cities in search of jobs. Emigration in the study area is male dominated which imposes burden on women along with other family responsibilities. Sometimes women also migrate and act as care givers in cities, in case of sheer poverty.

Women engaged as marginal labourers work hard equal to males but FGDs confirmed gender gap in receiving wage. There is no such discrimination among MNREGA workers but in other activities, such as private constructional work, disparity in payment is a reality. While men receive Rs. 400/- per day, women receive Rs. 300 to 350 for the same working hours. Women also experience discretions in decision-making processes due to their limited mobility in rural areas and lesser importance in family. They have lesser access to institutional banking due to lack of time and proper awareness. Khukumoni Midda from Dhablat mentioned “I do not like to go to bank for receiving wage from MNREGA scheme, I have huge work pressure in the home, so I do not get time and being an illiterate, I find the banking activity troublesome.”

Socio-cultural norms force women to discontinue learning in school to accept underage marriage. Sampa Sahoo from Bankimnagar mentioned “I was a class 4 drop out; my father wanted me to get

married to a good family, so I could not pursue education. I am married for the last 15 years and have 3 children. In our village, all women follow the same fate.” Marriage at minor age compels these women carry on family responsibilities at early age and makes them less aware about the coping strategies that are required during post hazard period.

Flood in the study area occurs on an annual basis and during post flood period the families suffer the most from food insecurity. One such event in the study area was during *Aila* storm in 2009. Inundation continued for 7 to 8 months in Sagar and Mousuni Islands which forced women to take shelter in local schools along with men and they lived under utter food scarcity. Women need some extra privacy which got affected while they shared the same space with 50 other families. Fatima Bibi from Baliara said “We lived together with ducks, hens, cows and with many more families for 3 months after *Aila*, it was a very difficult time for the family. We suffered a lot more because there was no privacy and the situation was embarrassing, we do not want the situation back ever.” Especially the pregnant women are mostly affected with food insecurity during post hazard period. They needed elements like calcium, protein, vitamin D, folic acid, iron in their food items. But in the flood shelter, they are generally left with puffed rice, jaggery and hodgepodge only. Dr. A Rahaman from Baliara, Mousuni Island noted that even now most women who visit the rural clinic during pregnancy are anemic and malnourished. It directly affects the foetus.

Salt water intrusion during embankment breaching lowers the fertility of soil and directly affects post-flood agricultural production. FGDs informed about decreased agricultural production and decreasing regeneration of green leafy vegetables in the study area due to added salinity in the soil. Women from the study area reported that there has been a huge reduction in yield of swimming animals from the fresh water system since the intrusion of saline water into their ponds. Previously they used to reject certain catches because of its poor quality but now their decreased numbers compels them

to accept whatever is caught. Shibani Das from Sibpur mentioned that “Since *Aila*, our lands have become sterile due to higher level of salinity, inundation for frequent breaching and saline water intrusion. Previously we used to get 9 packets of paddy from 1 *bigha* of land but now we get only 6-7 packets from the same land.” Mallika Das from Sumatinagar said that “During every high tide my land gets inundated because the embankment is not repaired and mud embankment cannot protect us. My pond is now unsuitable for fishing, the water is saline.” Before *Aila* in 2009, the yield was much higher and now the land is incapable of supporting the peoples need. They buy food items from market which forces increase of their expenditure on food. Amita Mondal from Muri Ganga replied “we buy everything from market starting from rice to vegetables. I lost 2 *bigha* of land during *Aila* and now left with 15 *cottahs* of land. There was a time when we used to feed *giriya sak* (a leafy vegetable) to cows as cattle feed, but now decreased regeneration of *sanchi* (*Alternanthera phyloxeroides*), *matifora* (*Alternanthera sp*), *lal sak* (*Amaranthus sp*) and other varieties, we consume *giriya as human food*”. Previous researches state higher temperature and saline conditions impinge on certain species’ phenotypic plasticity, often leading to their decreased regeneration (Sengar and Sengar 2015; Mukherjee and Siddique 2018); this has been the situation in the present study. All these aspects make the rural people food insecure during hazardous events.

Women who work in the fields are directly exposed to sunlight for longer period of time and they opined that there is uneven pace of seasonal change. Saida Bibi from Mousuni stated “There is increased heat during summer, winter hardly stays for 20 days, there is high variability of monsoon rain. This year the yield of *aman* rice got massively affected by rainfall during November unexpectedly”.

Impact of climate change on health of women is a new dimension in the climate studies. International Scientific Congress on Climate Change : Global risks, challenges and decisions, Copenhagen (March, 2009) first outlined such gendered health outcomes of climate change (WHO 2005). FGDs in the present concern revealed

that most women *meen* (prawn seed) gatherers stay in the saline water for 4-6 hours and women who bath or wash in the saline pond water suffer from infectious skin diseases. Dr. A Rahaman from Baliara, Mousuni Island, confirmed “direct and prolonged contact with salt water sources during prawn seed gathering and household activity exposes women to skin infections and other waterborne diseases”. He added “Typhoid, dysentery, diarrhoea and skin diseases are very common among patients of all age.” Inadequate development of transport and communication infrastructure inhibits people from visiting healthcare facilities. Rudranagar and Bagdanga are the main health centres in Sagar and Mousuni Island respectively. But good treatment and better medicinal facilities are available in Kakdwip only, which is about 20 to 30 km away from the study area. Greater distance to the main health centre means people are more likely to visit unqualified doctors for medical treatment, which is insufficient and poor in nature. The situation becomes worse during hazardous events, even leading to the death of family members.

Concerned FGDs also informed that combined effects of climate change and extreme poverty force women and girl children of the area to prostitution. United Nations Report on Drugs and Crime suggests that monoculture (rice cropping), lack of livelihood opportunities and natural disasters are the push factors working in the Sundarbans (UNODC 2013). Recent researches in the Sundarbans also confirm such evidences (Das 2009; Eaton 2015; Ghosh 2015).

Thus it is clear from the discussion that climate changes pose threat to the ecology, economy and society as a whole, but women are more vulnerable than male.

Conclusion

The objective of the paper is to unravel the vulnerability of women to changing climate phenomena. The result of the FGDs helped us to understand that several factors are responsible for such facts. Starting from the role that women play in the society to the social stigma that creates a barrier in their educational achievement and empowerment,

leads to higher vulnerability. Climate change is not gender neutral. Therefore to deal with the phenomena, capacity building and empowering women are essential. There must be collaboration between Government and Non Government Organizations with local stakeholders to build resilience and include women as the integral part of policies and schemes related to development and climate change adaptation.

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Paradox of Gender: Is it Sex or Your Thinking for Social Development ?

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Abstract

Social development is not only depended upon the economy or the developmental projects. But social perception, social thinking, social demands and especially social education are the four pillars of social development. The development of society is hidden in our cognitive knowledge based on our actual education. The actual education again is based on our humanity, freedom, rights and thinking. Society has two hands mainly i.e. man and women. History and civilization had given more importance to its right hand and demarcated it as Male in most cases and less importance to left hand; which had demarcated as Female. So, a gender gap has been raised and a developmental gap has been emerged. Now we are belonging at the door or Neo-development i.e. the development is nourished and flourished by ICT. Thus, the development will not be confined into a pocket like a pocket development in a part of society. Neo-development is a form of globalized development and it is the path of applied development concept. Applied development means your development and the thought of development can be used for others and here the neo-development concept can be channelized with the help of modern information and communication technology. For global awareness about the actual meaning of and the perception about gender and sex; this paper is highly important and relevant to decrease the gender bias and sex related crimes to amplify the social development.

Key words: Gender, Sex, global awareness.

The issues related gender and sex are the criteria of social development. Gender i.e. the thinking of the family, grandmother, nurses and of course of our society. Sex is biological, it can't be changed, universality same and related by born. Though in recent, yet with the help of sexual transmission method the biological organ

can be changed. But the gender is the thinking of parents, family and society about the cultural behavior, social construction, dress, hair style, food habits, idea and believe to boy and girl or male and female.

A child is born, just a minute ago. The nurse comes to inform the family, 'Best wishes! A boy has come to your family'. All the family members expressed their uncontrollable happiness by laughing, cheering the time, given the maximum rupees to that nurses, buy sweets and distributes among the friends. Parallel another child is born at the same time and the same nurse has moved to another family and told them 'A baby has come in your family'. After hearing this news the expression has damped, their eyes are searching the tension of the future for the baby's marriage ceremony's cost. They don't not buy any sweets and the grandmother is very much angry on his son's wife. A few questions are formed, from these above stated circumstances. They are : how the nurse is differentiating the child is a 'baby' or 'boy'? The answer is very simple on the basis of the biological organ and which is called Sex. On the other hand how that nurse and the family members have told us what the gender of those two children are? The answer is very simple. Due to the birth of 'baby child' the society used to fall in tension, however on the other side for the 'baby boy' the family happily spent lots of money. This is the gender i.e. the thinking of the family, grandmother, the nurses and of course of our society. 31 years old IGNOU (largest University of the world) even they are not free from the appropriateness about the differentiation between Gender and sex.

In most of the cases we are unable to find out the differences between Sex and Gender. Sex is biological, it can't be changed, universality same and related by born. Though in recent, yet with the help of sexual transmission method the biological organ can be changed. But the gender is the thinking of parents, family and society about the cultural behavior, social construction, dress, hair style, food habits, idea and believe to boy and girl or male and female.

Now I am giving some examples by which we can find out the root of the gender differences concept. It has started from the very first second of birth. When after identified the sex people make a non-visible line between boys and girls. Like boy will be the male once and earn money for the family, protect their family and the '*chirag* of the family'. Whenever a just one month boy may cry parents told him 'Boys Don't cry', when he failed to achieve any goal and cried again parents told him 'Boys don't cry'. A seed of muscular power had been planted in the heart of the history of the society; where male can do anything except the birth of the child. But female can't do most of the thing except the birth of the child. This is the concept of gender biasness which the pockets of societies are bearing. We have taught our boys not to cry. Is it true and correct? The actual truth is : boys also cry but not in front of the bias society. They cry in their mind and heart with one or two eye-drops. So, why to plant the philosophy of the view 'boys don't cry'. An example can be used here from our daily advertisement like the best add ever of Madhuri Dikshit to represent the thinking on gender; where parents are saying and instructing to boys from their early childhood that "Boys don't cry". But at last of the advertisement Madhuri Dikshit said that a reformation word that is "Its time we teach them (girls) not to make girls cry".

Another sensitive point is being the matter of recent newsing that is Menstruating women are not allowed in Ayyappa temple in Sabarimalain Kerala. So, my question is if menstruation is sin or untouched philosophy then why millions of people worship the goddess who menstruates in Kamakhya temple (One of the 51 'peethas' also known as 'Yoni-Peetha') in Assam and maintained a unique festival called 'Ambubachi' when, it is believed, the goddess menstruates? Don't forget it's the quality of woman's creativity. This type of concept make a biasness about gender. Gender is your historical thought and be a scientist it has to be curtailed.

The society is being changed now; for example we have made the cinema 'Padman' to aware the mass people, Madhuri Dikshit has played roll for a best add ever related with the caption of 'men should

be taught not to get girls to cry and need to teach boys 'not to hurt others' instead of 'not to cry'. This expression of the society indicates that we are the follower of Gender discrepancies. If not why we have in need to make such type of cinema or advertisement. The term *Manglik* (considered as a *Dosh* (fault), in the birth chart of a person in Mars is located in (some) specific house) is for the lady why is not for male? If the lady is that then at first her marriage is done with specific material object like banana tree or even dog to purify her and then the marriage with the male is done. A crucial example has been reported in India where an 18 years rural Girl marries a stray dog from her village in India to lift 'curse' in Jharkhand.² It is not related with the economic status of the family. India's one of the richest educated family Amitabh Bacchan also follows this gender issues during the marriage of Aishwarya and Abhishek Bacchan because Aishwarya was *Manglik*. Aishwarya (reportedly a *manglik*),¹ had symbolically married a peepal tree, before tying the knot with Abhishek. Even in some cases society ruled on the lady to marrying her Tree to Break the Curse.³ All these were an astrological solution to nullify the bad luck of being *manglik*. A girl has to do family work, she's duty is to prepare food for father before marriage and for husband after marriage. Her duty is to wash the whole family's used cloth per day and male do not do it ever. Just told me why these type of gender differences are found. Girls wear the bangles. If any people told to a boys 'wear the *churi*/bangles of ladies 'then it is very prestigious to that marked boy. But don't forget now it has become the fashion that almost every boy used the *kara/bala* or type of bangles. So, it's not relevant to demarcate the gender.

At home we want the female cook and demand to mother or wife to serve it. Why do we demand it? When we move to restaurant could we ever asked to the manager that 'the cook of your restaurant is the female? The answer is No. We never do that. Hence forth, during that time we are not gender biased. Moreover almost all the TV Food showers are males, e.g. Ranveer Brar, Ritu Dalmia, Hari Nayak Saransh Goila Manish Mehrotra Sanjeev Kapoor, Vikas Khanna,

Atul Kochhar in India; even it is same in aboard like Loyd Grossman, Jamie Oliver, Nigel Slater, Roger Moore, Alton Brown etc. This is an incident of gender in cook and cooking.

In respect of the job in various departments like police, judiciary, legislation, Medicine, parliament, engineering, even in army ladies are very few percentage comparing with the male. The question is why? They have same two eyes, two legs, hands even same blood group. During the marriage the father-in-law like the female's job but it is restricted in some fields like teaching. Why? Because father-in-law and the husband think that after returning to home female can serve her family very easily. Here also the same thing about gender. It's actual none other than the thinking.

Again when a Secondary education passed girl wish to select the arts subjects, why not science. Not only the cause of the choice of the candidate rather the choice of the parents because our gender biased society teaches our girls from her childhood that home science, education, Bengali, English, sociology is for them , even geography is not for you. Because it is practical based subject and need field work. You can't do that.

Moreover more movements, more field works can break your virginity. For these the cycling, gymnastic, parade, NCC, basketball, cricket, football etc. everything are not allowed for girls. Before marriage virginity is considered supreme for them and after marriage the capacity of child reproduction is the identity of her appropriate biological organ or an identity of mother only. This is the human thinking which is called gender and the reflection of social construction.

A boy is called the light/*chirag* of the generation or family. You can experienced this when *Diwali* (lighting festival) comes in our culture and your grand-mother will give you a light-lamp / *pradip* to place it on the banana tree to recall the previous generation. It's actually to demarcate the male as they are the main factors of the progress of generation. The question is how a male can progress his

generation without the help of female's ovary? Is the only sperm is enough for the progress of the generation? This is the societal thinking or the concept of gender.

The term *Sati*, virgin, sober, obedient, familiar, adjustable, cooperative all these terms are tagged with the name of female. A report was published in Times of India on June 1, 2016 and the caption was 'Nasik man ends marriage after wife fails 'virginity test'. This is the thinking about gender. If the virginity is the only thing to identify a lady then please give the answer what should be said about *Drapadi* who had 5 husbands?⁴ If the *Satyayug* had accepted this no-virginity concept then why do we not? Now the time has changed a lady can also asking to her would be husband. That was the thinking about gender in the time of Mahabharata. Such type of practices is still prevailing in some Tibetan tribes who resides at Tibet-Nepal border area, *Todatribe* of Nilgiri, *Manala* tribe in Himachal Pradesh, *Nairs*, *Kammalans* artisan castes of Kerala, Jaunsar-Bawar in Uttarakhand those followed polyandry. RajoVerma, who lives in Malang village near Dehradun with her baby son and her five husbands.⁵It's also the view of gender among these mentioned tribal of community groups. "The people at farms on the mountain sides divide the property among their sons who further divided it among their sons. Dividing the property among several heirs would give each son very little to feed their respective families. This system of polyandry exists on the basis of practicality, and not 'love' necessarily. The main reasons why polyandry still exists in the Himalayan region are economic benefits and population control, to a certain extent."⁵ So there gender thinking is depending on the economic and population factors. So virginity is not only the identity of a single woman or for women.

Before marriage the family is worried and concerned about 'Shadi ...Shadi...Shadi...' Her education is only for her marriage i.e. without at least B.A. pass they won't be able to find out a good gentleman. Though the salary of the man demarcated him as a 'gentle man'. In all over the country, you can't find out a single case where a woman had gone through an abortion with the fetus of boy. Society

has followed the view like 'are you having a boy or an abortion?' Just you think that's why the female ratio in India is 940 out of 1000 male (Census, 2011).

On the basis of the issue of gender analysis it is not only the muscular bias rather the presentation of a girl must be different from the boy. Society has two eyes, so they are properly using these two for two groups i.e. male and female. You are a boy so you have a special permit or license to do anything. But if you are a girl then you have to follow a '*Lakshman Rekha*' i.e. your dress, way of food taking, posturing, language, hair style, accessibility of the time and space everything have to follow the male's wishes. Why the term 'character'/'*Charitra*' is for the girls? A guy can engage with more than one lady. Is it not character? In all over countries girls maintain their long hair. Just think that our history had made the differences between boy and girl on the basis of hair length. Even if a lady make his hair very short length then she is called 'boys cut' hair maintainer. We can love that <boys cut> hair girl, but when the time will be coming for marriage, we prefer only long hair lady. Why we do it? The answer is our gender biasness and the thinking which divide the good character and bad character.

Again there are some adjectives have been added with the male like : manly, bread winner, wild, handsome, sexually active, angry etc. Female have also like : sacrificing, caring, cheerful, quit, sympathetic, adjustable, carries easily etc. Why it could not be opposite? When husband stay in the wife's home then he is called '*gharjamai*'. Why this term has pasted at the back of male? If boy wants money from his parents then they give more but not for girl child. Why this discrepancies? Sometime parents told to their girl child not to waste the money because of her marriage they have to expend the huge. Do you know why most of the girls are very calculative about the expenditure in their daily life? Because our society even parents had planted a seed of thinking that 'girl in family means she is the burden of her family and the expenditure on her upto marriage all are not for own family, because she's for her another family. So why will

we invest which will not provide any future feedback.’ This is the thinking about gender.

Brother always try to control the movement, thinking even personal space. Brother has the girl friend but when he saw same for his sister he can’t accept it. Even some brothers check the mobile phone of his sister. This is the reflection of the gender of the society. If wife is IAS and husband has no job then again you may see the gender issue. Love has made their family but thinking has divided their psychological bonding. Why? When that job-less husband is walking on the street, some people are discussing ‘Oh! Just see, that is the jobless husband of an IAS-wife’. Again the thinking about the gender is in front of you. We have forgot that Sex is only in between the legs, but gender is between your ears.

In family almost every decision is decided by male. If a girl wants a motor-bike from his father, the proposal must be cancelled. Hardly can they allowed ‘Scotty-pep’ two wheeler. Moreover, if a lady is passing on road with riding of Royal Enfield bike, age-old person may discuss the line ‘our society has demolished, a girl is ridding bike, OMG!’ Again gender is changed with time and space. Like you are in Santiniketan then *Pajama-Panjami* is suitable, if you are in Manhatan then Jeans, hot pant, sleeveless top anything you can wear. This is the freedom culture of American society, their eyes has been habituated but we, the Indian people have not updated our thinking on the perspective of Gender analysis.

Gender is your thinking and the expression related with that. Sometime if one guy is talking with two ladies that would not be the matter of discussion. But if one lady is talking with two guys simultaneously that may be reflected some another meaning to our society. It’s an example of thinking related with the gender. Thus a concept of gender gap has been developed in our surroundings i.e., a disproportionate difference or disparity between the male and female. From the root, this gender gap we can estimate lots of things like : pay gap , education gap, political gap, psychological gap, gap of

human rights, gap of prestige, rate of negligence, level of dominance, motto of the society, future of the society, future development of the country, right on wealth, right of decision etc. The Global Gender Gap Report was first published in 2006 by the World Economic Forum.⁶ Now the thinking is : why do we need this report? Because the thinking of the society demands, we need to find out the proper problems related with sex decimations. The report's Gender Gap Index ranks countries. According to the calculation of gender gap is between women and men in four key areas : health, education, economy and politics to gauge of the state of gender equality in a country. The gender gap of Norway is 0.830, United Kingdom is 0.770, USA is 0.718, India is 0.669 and Pakistan is 0.546 on 2017. Just you think that one of the richest countries in the world Qatar (\$124,930/ capita)⁷ has the gender gap value is 0.626; whereas, USA has 12th Rank (\$59,500/ capita) in world riches country list but the gender gap value is 0.718. Again India⁸ belongs the rank 126th and its gender gap value is 0.669. It proves that economy is not the vital factor to reduce the sexual disparities.

Can the Law reduce this gap? No and never. Law can make fear to some extent. We need to change the thinking and this is the center of formation of the gender gap.

The Women's Reservation Bill or The Constitutional (108th Amendment) Bill, 2008, is a lapsed bill in the Parliament of India which proposed to amend the Constitution of India to reserve 33% of all seats in the Lower house of Parliament of India, the Lok Sabha, and in all state legislative assemblies for women. The seats were proposed to be reserved in rotation and would have been determined by draw of lots in such a way that a seat would be reserved only once in three consecutive general elections.⁹ The Rajya Sabha passed the bill on 9 March 2010. However, the Lok Sabha never voted the bill. The bill was lapsed after the dissolution of the 15th Lok Sabha in 2014. ¹⁰ Now the question is : why this bill is not finalized and passed? There are some male Ministers may know this if it is passed then the total seats of them must be reduced. This is the thinking and

the perception about gender.

A recent revolutionary picture has come where four daughters have carried their father's dead body towards Buried land in Rager colony of Bundi district, Rajasthan. This is an example of Gender thinking of our society where only sons can be allowed to burn their father's dead body. The question is why? When the quality is discussing in all over world then the gender discrimination is not acceptable in our society.

A matter of security of women is a big issue to birth the gender thinking. A girl goes to private tuition with her father and again comes back with him. But about boys it's not maintained continue or regularly. This is mainly due to feeling of insecurity. The question is which is the factor of insecurity? The actual answer is the thinking of the giant of our society those are mentally seek and have no respect to women. Thus the concept of gender insecurity is associated here. According to a study carried out by the British NGO Action Aid, 79% of Indian women have already experienced violence or sexual harassment while out and about in the streets.¹¹ The question is : Why women can't walk freely on roads at night? Because of the gender differences based on sex determination. But India is improving and some states has already proved their openness and safeness. Gujarat is one of them. Ahmedabad and Gandhinagar have been leading the surveys as the safest places for women to work and live in with good reason.¹² So our concept of gender is moving to a real meaning.



Plate : Dr. Tapas Pal is getting information from the Bimala Devi , an age-old women of Chitkul village (India's last village at India-Tibet border) of Himachal Pradesh about the 'Draupadi tradition' of their society. It is actually the polyandry culture.

Polyandry in India refers to the practice of polyandry, whereby a woman has two or more husbands at the same time, either historically on the Indian subcontinent or currently in the country of India. An early example can be found in the Hindu epic *Mahabharata*, in which Draupadi, daughter of the king of Panchala, is married to five brothers. Polyandry was mainly prevalent in the Kinnaur Region, a part of Himachal in India which is close to the Tibet or currently the Indo-China border. Now one thing can be discussed here i.e. if polyandry is trying to apply in our region then it will not be accepted in respect of global education and population-resource ratio. But when we move to Kinnaur district their traditional society follow it still now and their gender concept is related with their traditional culture. Bimala Devi has two husband and they are residing in same house. The thinking of the people of Kinnaur is controlled by their climate, population and resource.

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Reproductive Health of Women: An Interstate Analysis

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Abstract

Reproductive health is one of the emerging concerns in recent time. According to Global Health Observatory data (GHO) “every day in 2015, about 830 women died due to complications of pregnancy and child birth. The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country.” This disparity is an cause for concern in developing countries in general and India in particular. With this backdrop, using 4th round NFHS data this paper examines the nature and current status of reproductive health of mother with special emphasis on its interstate variations. The extent of antenatal care, post natal care, institutional delivery, level of education of mother, Body Mass Index (BMI), non-anemic mother are found to be the major components of reproductive health of mother. The health infrastructure, sanitation and economic well-being are found to have a strong positive influence on safe Motherhood index.

Keywords: Ante natal care, Post natal care, Institutional delivery, Health infrastructure, Sanitation

Introduction

Reproductive health refers to the ability of a woman to reproduce, regulate fertility, experiencing the process of pregnancy and delivering child birth safely during her reproductive stage. Improving reproductive health means reducing maternal mortality. Maternal mortality is defined as the death of woman results from complication of pregnancy and child birth, improper ante natal and post natal care. Empirically it has to be found that “the rate at which women

die relative to men is higher in low- and middle-income countries compared with their high-income counterparts, especially in the critical years of infancy and early childhood and in the reproductive period” (World Development Report, 2012). As per estimate of WHO ‘everyday almost 830 women approximately die from preventable causes related to pregnancy, child birth while 99% of all maternal death occurs in developing nations.’ A comparative study reveals that among Asian countries, India accounts for highest maternal death in 2000 while Sri Lankan maternal health report is improving by successful health services and non-health services (Arora, 2005).

Under this backdrop, this paper intends to examine the current condition of reproductive health of mother in India and its states. For convenience this paper has been divided in III sections. Section I deals with reproductive health scenario of India and its interstate disparity. In Section II an attempt has been made to construct an index called Safe Motherhood Index (CSMI). Further in this section the factors influence CSMI have been identified and explained. Conclusion appears in section III.

Section I

This section reveals inter-state variation in health conditions of women such as the percentage of women are getting married before 18, pregnant women before 18, their antenatal care and post natal care, institutional births, BMI, prevalence of anemic women etc. The scenario of married women in India before 18 years age across various states is presented in table 1.1.

It is evident from the table that there is wide interstate variation in the incidence of child marriage in India. The greater incidence of child marriage is found to above in the states like West Bengal (40.7%), Bihar (39.1%) and Rajasthan (35.4%). On the other side the incidence of child marriage is less in the states like Punjab (7.6%), Goa (9%), Puducherry (10.7%). In all states residence wise percentage of women married before their 18th birthday are mostly high in rural zones. But in Goa and Daman-Diu large numbers of married women

before 18 years are concentrated in urban areas.

Table-1.1: *Extent of Married women before 18 years*

S No	States	Urban	Rural	Total
1	Andaman & Nicobar	11.9	20.4	17.1
2	Andhra Pradesh	26.3	35.5	32.7
3	Assam	23.9	33.9	32.6
4	Bihar	26.9	40.9	39.1
5	Goa	14.8	2.7	9.8
6	Haryana	19.6	17.8	18.5
7	Karnataka	17.9	27	23.2
8	Madhya Pradesh	16.6	35.8	30
9	Maharashtra	18.8	31.5	25.1
10	Manipur	11	14.3	13.1
11	Meghalaya	7.8	19.3	16.5
12	Puducherry	10.9	10.2	10.7
13	Sikkim	16.1	13.6	14.5
14	Tamil Nadu	13	18.3	15.7
15	Telengana	15.7	35	25.7
16	Tripura	25.6	34.8	32.2
17	Uttrakhand	12.2	14.8	13.9
18	West Bengal	27.7	46.3	40.7
19	Odisha	19.5	21.7	21.3
20	Punjab	6.9	8.1	7.6
21	Rajasthan	20.3	40.5	35.4
22	Chhattisgarh	14.8	23.5	21.3
23	DadraNagarHaveli	27	27.8	27.5
24	Daman Diu	28.4	18.2	25.4
25	Gujrat	17.2	30.7	24.9

Source: NFHS4 (2015-16)

Pregnant women before 18

Health picture of Indian women is still not pleasing. A detailed analysis has been made by NFHS4 datasets. Most important factor that affects the health of woman is the age at which she becomes married. The legal age for marriage is 18 for women and 21 for men.

Tripura has experienced highest numbers of women (18.8%) who are getting pregnant less than 18 years. Performance of West Bengal is very poor (18.3%).

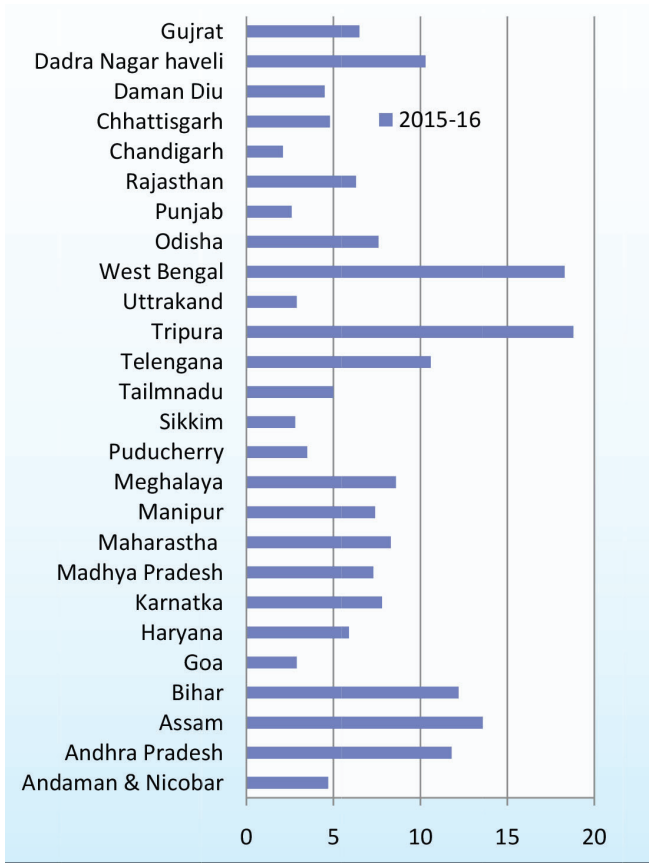


Figure-1.2: Percentages of Pregnant women before 18

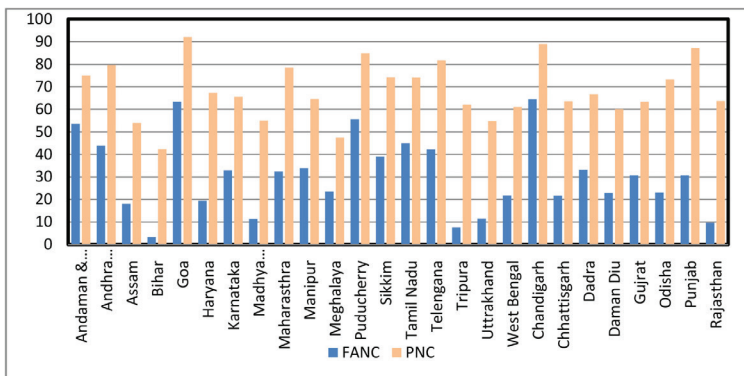
In the states Assam, Bihar and Andhra Pradesh women's marriage and fertility conditions are patchy. Few women were pregnant before the child bearing age in the state like Chandigarh (2.1%) followed by Punjab (2.6%) Sikkim (2.8%), Goa (2.9%), Uttrakhand (2.9%). Goa is better performing state because very fewer women are married before 18 and there also minimum numbers of women who were mothers or pregnant before adolescent period.

Full Ante natal Care and Post natal Care

According to NFHS4, Full antenatal care is the percentage of women attended at least four antenatal visits, at least one tetanus toxoid (TT) injection and took iron folic acid tablets or syrup for 100 or more days. Also antenatal care is the primary factor that reduces risk of infant mortality. Reproductive health of women is damaged by the lack of Ante natal care (ANC) visits.

By the term post natal we mean the period of first 6 weeks after birth. Most importantly, mother and baby should receive 48 hours immediate care following birth. They should be examined by the trained health worker. Postnatal care is greatly affected when infants born to adolescent mothers.

Figure -1.3: Percentages of FANC and PNC



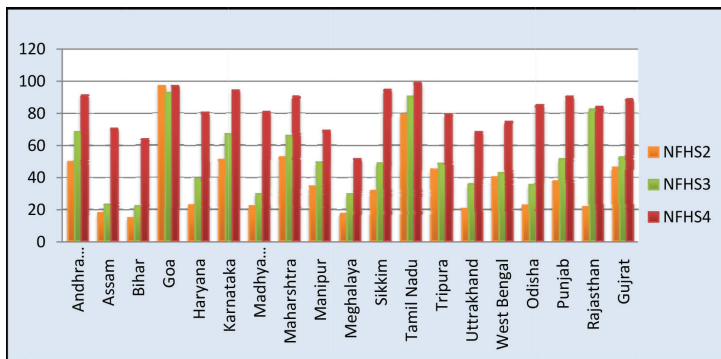
Source: NFHS4(2015-16)

Above chart shows in India, wide inter-state differential is present in respect of both FANC, PNC. Very low ante natal care is observed in Bihar 3.3% followed by 7.6% in Tripura 9.7% in Rajasthan as compared with high FANCs observed in Chandigarh, Goa and Puducherry. Higher PNC is observed in Goa, Chandigarh, Punjab whereas women in Bihar, Meghalaya are receiving least PNC among other states. FANC in West Bengal is moderate (21.8%) whereas 61.1% of women are receiving PNC.

Institutional Births

Access to institutional deliveries expected to reduce the risk of maternal mortality and morbidity as well as helps to decrease neonatal mortality. It is conducted through skilled attendants, nurse, doctors. Immediate post natal care is crucial for new born and maternal survival because first 24 hours of life should be monitored through institutionally and postnatal visits should be scheduled. Higher institutional births are positively related to maternal health.

Figure -1.4: Institutional Births



Source: NFHS (2, 3, 4)

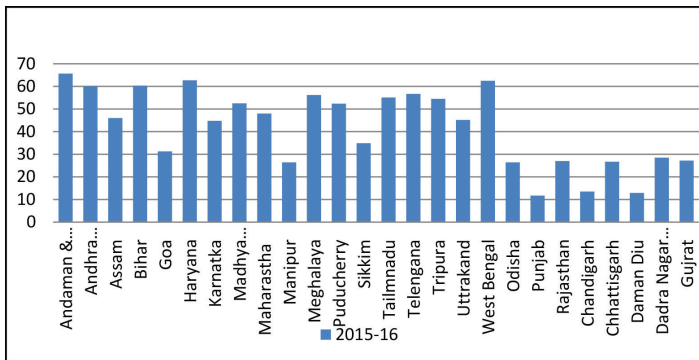
Now we are analyzing the trend of institutional births for 19 states during NFHS2 (98-99), NFHS3 (05-06) and NFHS4 (15-16). In 1998-99, highest percentage of institutional births observed in Goa which were 96.9 and poor institutional births were observed in Bihar followed by Meghalaya and Assam. In 2015-16, states with better performing baseline are Goa, Tamil Nadu, Karnataka, Andhra Pradesh and weaker states are Bihar, Meghalaya, Assam.

Body Mass Index

BMI is defined as body weight (mass) divided by the square of body height of that individual. Usually accepted BMI ranges from 18.5kg/m² to 25 kg/m². Body Mass Index (BMI) is also known as Quetelet Index. Nutritional status and BMI are important factor for determining the women health status at child bearing age (15-49)

because women's nutritional status has been positively linked better health condition of her child. Using this range we can categorize a person as underweight, overweight or obese.

Figure -1.5: Percentages of BMI < Normal



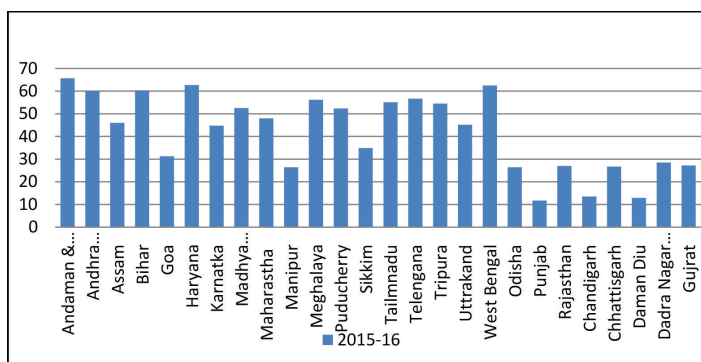
Source: NFHS4 (2015-16)

In Sikkim, Manipur, Puducherry, Punjab women health conditions are improved because there exist less number of underweight women. On opposing, higher percentages of underweight women are witnessed in Bihar, Madhya Pradesh, Dadra Nagar Haveli, Chhattisgarh at the reproductive age (15-49).

Anemic women

Increasing numbers of anemic women highlight a major health hazard at reproductive age. It is a situation where the number of red blood cells in the blood is below normal range. The root cause of anemia among teenage girls is shortage of iron and low production of new red blood cells which carry oxygen. So an anemic woman's body tissues get lesser amount of oxygen. Fatigue, lethargy and many other medical complications are the major consequences of anemia.

Numbers of anemic women vary among the 26 states reflecting inter-state diversity. The highest percentage of anemic women is observed in Andaman & Nicobar (65.7%). While in Punjab, there is less numbers of women are being anemic (11.7%) followed by Daman Diu and Chandigarh.

Figure -1.6: Percentages of Anemic women

Source: NFHS4 (2015-16)

Caesarean delivery: Domination of Private Institution

Table-1.7: Rate of Caesarean Delivery to the Institutional Births among Indian states 2015-16

States	Public Institution	Private Institution	Difference between private and public institution
Andhra Pradesh	25.5	57	31.5
Assam	21	26.7	5.7
Bihar	7.6	17.2	9.6
Chandigarh	19.5	44	24.5
Chhattisgarh	24.9	32.7	7.8
Dadra & Nagar Haveli	12	38.4	26.4
Daman Diu	7.3	26.8	19.5
Goa	19.9	51.3	31.4
Gujarat	10.8	26.6	15.8
Haryana	8.6	25.3	16.7
Karnataka	16.9	40.3	23.4
Madhya Pradesh	5.8	40.8	35
Maharashtra	13.1	33.1	20
Manipur	22.6	46.2	23.6
Meghalaya	9.8	31.4	21.6
Odisha	11.5	53.7	42.2
Puducherry	30.4	48.3	17.9
Punjab	17.8	39.7	21.9
Rajasthan	6.1	23.2	17.1
Sikkim	18.1	49.3	31.2

Tamil Nadu	26.3	51.3	25
Telangana	40.6	74.9	34.3
Tripura	18.1	73.7	55.6
Uttarakhand	9.3	36.4	27.1
West Bengal	18.8	70.9	52.1

Source: NFHS4 (2015-16)

In 2015-16, throughout all 25 states, caesarean delivery dominates in private sector than public sector as it is profitable for both doctors and private institutions.

There are 16 states where the difference of Caesarean delivery between private and public sector are higher than 20. In West Bengal the gap is very much wider almost 52.1 and gap is least in Assam. It is revealed that highest numbers of private sector caesarean births occurred in Telangana, Tripura, and West Bengal respectively. The delivery in public institution is quite low (only 6.1) in Rajasthan.

Section II

Safe Motherhood Index: It helps to determine health condition of woman. It includes different health indicators those affect health of woman.

Here, I have attempted to construct Safe Motherhood Index. Components of SMI are FANC, PNC, Non-anemic mother, normal body mass index, women literacy, institutional delivery.

Dimension Index (DI) in each state is calculated here on the basis of six components of safe motherhood index.

$$\text{Dimension Index (I}_j\text{)} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum value} - \text{Minimum value}}$$

$$j = 1, 2, 3, 4, 5, 6$$

$$I_1 = \text{Dimension Index of ANC}$$

$$I_2 = \text{Dimension Index of PNC}$$

$$I_3 = \text{Dimension Index of Non anemic women}$$

I_4 = Dimension Index of Normal Body Mass Index ($18.5 \text{ kg/m}^2 < \text{BMI} < 25 \text{ kg/m}^2$)

I_5 = Dimension Index of Women Literacy

I_6 = Dimension Index of Institutional Delivery

Composite Safe Mother Hood Index = $(I_1 + I_2 + I_3 + I_4 + I_5 + I_6) / 6$

Table -2.1: Dimension Index, Composite Safe Motherhood Index and Ranking of Indian states by CSMI

States	I_1	I_2	I_3	I_4	I_5	I_6	CSMI	Rank
Andaman& Nicobar	0.836	0.656	0.257	0.324	0.875	0.931	0.646	4 th
Andhra Pradesh	0.675	0.751	0.364	0.131	0.337	0.828	0.514	13 th
Assam	0.246	0.234	0.626	0.521	0.563	0.395	0.43	21 st
Bihar	0	0	0.358	0.416	0	0.255	0.171	26 th
Chandigarh	0.522	0.937	0.067	0	0.852	0.828	0.534	11 th
Chhattisgarh	0.306	0.427	0.607	0.531	0.423	0.387	0.446	19 th
Dadra Nagar Haveli	0.495	0.405	0	0.232	0.327	0.754	0.368	24 th
Daman Diu	0.442	0.357	0.385	0.337	0.85	0.797	0.528	12 th
Goa	1	1	0.9	0.216	1	0.938	0.842	1 st
Gujarat	0.455	0.423	0.527	0.127	0.591	0.769	0.482	16 th
Haryana	0.269	0.351	0.314	0.59	0.654	0.6	0.463	17 th
Karnataka	0.492	0.467	0.648	0.354	0.56	0.884	0.567	9 th
Madhya Pradesh	0.134	0.255	0.504	0.422	0.246	0.606	0.361	25 th
Maharashtra	0.484	0.726	0.588	0.259	0.779	0.802	0.606	8 th
Manipur	0.509	0.447	1	0.655	0.898	0.364	0.645	5 th
Meghalaya	0.336	0.104	0.435	1	0.842	0	0.452	18 th
Odisha	0.329	0.622	0.532	0.39	0.451	0.701	0.504	14 th
Puducherry	0.87	0.855	0.461	0.262	0.898	1	0.724	3rd
Punjab	0.455	0.901	0.485	0.386	0.807	0.806	0.64	6 th
Rajasthan	0.106	0.429	0.611	0.449	0.175	0.672	0.407	23 rd
Sikkim	0.594	0.64	0.833	0.711	0.939	0.892	0.768	2 nd
Tamil Nadu	0.693	0.638	0.456	0.304	0.756	0.981	0.638	7 th
Telangana	0.647	0.793	0.426	0.239	0.395	0.826	0.554	10 th
Tripura	0.071	0.397	0.467	0.652	0.781	0.587	0.492	15 th
Uttrakhand	0.136	0.251	0.641	0.524	0.682	0.354	0.431	20 th
West Bengal	0.307	0.377	0.317	0.445	0.543	0.49	0.413	22 nd

Table 2.1 displays based on Composite Safe Motherhood Index, Goa occupies on top position followed by Sikkim and Puducherry. Bottom position is engaged by Bihar followed by Madhya Pradesh, Dadra Nagar Haveli and Rajasthan. Sikkim takes 2nd position where all the six components of safe motherhood index are almost good except Full Ante Natal Care (FANC). The 3rd position is being held by Puducherry. In Puducherry, almost every women are going to birth in institution. Simultaneously level of female literacy is in a good position in Puducherry. Highest numbers of non anemic women are noticed in Manipur which takes the 5th position regarding to the state ranking of safe motherhood index.

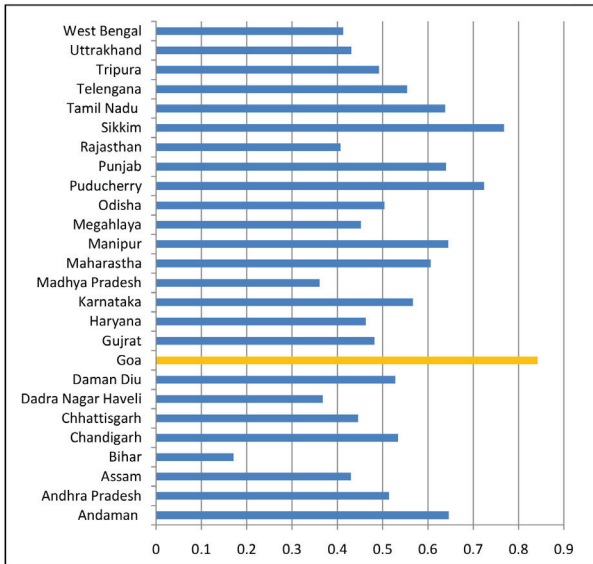


Figure 2.2: Composite Safe Motherhood Index

The ranking position of West Bengal is very unfortunate. It possesses 22st position among 26 states in India. Now the graphical representation of safe motherhood index by all 26 states are showed in the figure.

Determinants of Safe Motherhood Index

As indicators of Composite Safe Motherhood Index, 4 independent variables which are chosen and their details are listed below. We are now here interested to find out the significant determinants of Safe Motherhood Index for 22 Indian states. Due to unavailability of data we are not considering all 29 Indian states. So for this purpose we are considering 4 independent variables whose details description are listed below-

Table 2.3: *Determinants of Safe Motherhood Index*

Dependent Variable: Safe Motherhood Index				
S. No	Independent Variable	Description of Independent variable	Data Sources	Expected sign with Composite Safe Mother Hood Index
1	APSPGAP (X ₁)	Average population served per government allopathic doctor	National Health Profile (2012-13)	-ve relation
2	PCNSDP (X ₂)	Per capita Net State Domestic Product	Economic Survey (2012-13)	+ve relation
3	IDW (X ₃)	Improved Drinking water	NFHS4 (2015-16)	+ve relation
4	IS (X ₄)	Iodized Salt	NFHS4 (2015-16)	+ve relation

To find out the determinants of safe motherhood index, multivariate regression have been used. SPSS version 21 is used to catch up the important indicators. The regression equation is as follows-

$$Y = f(X_1, X_2, X_3, X_4)$$

$$Y = aX_1 + bX_2 + cX_3 + dX_4$$

Y = Composite Safe Motherhood Index (Dependent Variable)

X₁ = Average population served per government allopathic doctor
(Independent Variable)

X_2 = Per capita net state domestic product (Independent Variable)

X_3 = Improved drinking water (Independent Variable)

X_4 = Iodized Salt (Independent Variable) a, b, c, d = coefficients of the respective independent variables.

The regression results are presented in the following tables-

Table - 2.4A: Results of Multiple Regression

Model	B	Unstandardized		Standardized		
		Std. Error	Beta		t	Sig.
1	(Constant)	.566	.387		1.460	.162
	Per Capita Net State Domestic Product	2.218 E-006	.000	.597	3.413	.003
	Average population served/government allopathic doctor	-4.108 E-006	.000	-.424	-2.612	.018
	Improved Drinking Water	-.002	.002	-.135	-.817	.425
	Iodized Salt	.000	.004	-.006	-.041	.968

Dependent Variable: Composite Safe Mother Hood Index

Table-2.4B: Results of Multiple Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.837 ^a	0.701	0.63	0.09147	0.701	9.951	4	17	0

This regression table reveals that, economic factor like PCNSDP is very much responsible for improving Motherhood condition. Increase in number of doctors availability have a significant impact on CSMI. It is very unfortunate that Improved drinking water, Iodized salts have negative association with CSMI and they are truly insignificant. Health and economic factor are important determinant of CSMI.

Section III:

From the inter-state analysis the study reveals that in 2015-16, prevalence of child marriage is observed in West Bengal, Bihar and Rajasthan. Marital status before the legal age of women is good in Punjab, Goa, Puducherry and in Manipur respectively. As in Punjab and Goa fewer percentage of women are engaged marriage before puberty so in these states are experienced fewer pregnant women or fewer mother before their adolescent's age. High rate of ante natal care is delivered in Goa followed by Puducherry and Andaman and Nicobar. Large majority of women in Goa are experienced higher post natal care. Delivery care is good Puducherry, followed by Tamil Nadu, Goa, Andaman Nicobar and Sikkim respectively. The condition of PNC is awful in Bihar. Also higher numbers of women are perceived with low Body Mass Index (BMI) in Bihar. Across the 25 states in India, rate of caesarean delivery has substantially higher in private sector than in public sector because caesarean delivery it is profitable for both doctors and private institutions. Maximum numbers of anaemic women are seen in Andaman and Nicobar, Haryana and West Bengal. In the context of Composite Safe Motherhood Index Goa occupies on top position followed by Sikkim and Puducherry, while bottom position is engaged by Bihar, Madhya Pradesh, Dadra Nagar Haveli and Rajasthan respectively. The ranking position of West Bengal is very unfortunate. It possesses 21st position among 25 states in India.

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Increasing Inequality in the Quality of Employment in India : An Analysis across States and Rural-Urban Location

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Abstract

Quality of employment is one of the fundamental dimensions of the quality of life, as employment not only represents the main source of income for the people in the world, but also a large part of lifetime is spent working. Apart from this, according to International Labour Organization, decent work or quality of employment is central to sustainable poverty reduction and is a means for achieving equitable, inclusive and sustainable development. So, this paper is an attempt to measure the extent of the quality of employment in India across fifteen major states and across rural-urban locations, with the help of certain dimensions and indicators proposed by ILO on decent work. It is based on the Government of India's published data mainly on four quinquennial rounds – 1993-94, 1999-2000, 2004-05 and 2009-10. This paper suggests that, the quality of employment from the aspect of quantity seems to be higher in the developed states, but it seems to be poor from the other aspects of quality like social security benefits, and freedom of association than the other states. Besides, there exists rural-urban gaps and most of these gaps are increasing overtime. It is also found that, the growth of the economy, the growth in the service sectors and the organised manufacturing sectors have negative and significant effect on the social security benefits and social dialogue of the regular wage/salaried workers. Thus, this paper finds support for some accepted views, but contrary to the usual understanding, also finds out that, growth may not be sufficient to ensure quality of employment in general.

Key words: Quality of employment, decent work deficit, rural-urban gap

1 This paper is based on a chapter of my ongoing PhD dissertation. I am sincerely grateful to Dr Saumya Chakrabarti my PhD Supervisor, for his suggestions and comments. However, usual disclaimers applies.

1. Introduction

India is one of the fastest growing economies in the world (The BRICS Report, 2012, pp 5). Most interestingly there has been an improvement in some of the socio-economic indicators like poverty, literacy etc (Ministry of Statistics and Programme Implementation, Govt. of India, 2013). But, so far as, contribution towards employment is concerned, both in terms of quantity and quality, it seems to be poor, as such the ‘National Commission for Enterprises in the Unorganised Sector’ states that “*The central problem of the challenge of employment is namely, deficit in its quantity and quality*” (NCEUS 2009, pp. ii; author’s emphasis). Moreover, from our own study, there also seems to have problem of inequality in the quality of employment between different spaces such as rural and urban spaces etc. Overtime, most of these gaps seem to be increasing.

In order to understand the issue, we briefly present some of the facts of employment in India through the two tables- which give the percentage share of workers in different categories of employment and the average daily earnings of workers across rural and urban areas. From table 1, we can see that the percentage share of the self-employed workers is higher than that of the regular salaried/wage workers and the casual workers in both the areas. Moreover, the share of the regular workers seems to be very low in the rural areas. Most disturbingly, we see that, overtime, the casualization of workforce has been increasing in India, which is taken to be the most disadvantaged category of workers. The casualization has particularly increased in the rural areas, while has remained almost constant in the urban areas. Moreover, from the second table, we get a clear picture of the extent of problem of quality of employment in India. The table shows that, the average daily earnings of the casual workers are lower than that of the regular workers, particularly in the rural areas. In addition to this, the rate of the growth of daily wages is lower among the casual workers than that of the regular workers.

Moreover, the two tables show that the percentage share of those workers is high and has been increasing, whose earning is low. Apart

from this, we see that, not only the rural-urban gap exists, but the gap is increasing overtime, except among the casual workers in terms of average daily wages. Though, these tables represent quantitative variables but it also gives an idea about the quality of employment in India, as well as, the rising inequalities in the quality of employment across different locations. So the study on the quality of employment in India is worth noting.

This paper is an attempt to measure the quality of employment in India. We would also like to see whether there are inequalities in employment quality across different geographical spaces, such as across different states and rural-urban areas. We also wish to see what has happened to these inequalities overtime. To do so, we follow the concept of decent work proposed by International Labour Organisation. According to the ILO, decent work implies “productive work for women and men in conditions of freedom, equity, security and human dignity” (ILO 2012, pg 1). The idea of the ‘decent work’ was first articulated in 1999 by the ILO Director-General in his report to the 87th Session of the International Labour Conference, which is captured in four strategic pillars : rights at work, which are grounded in fundamental principles and international labour standards; employment and income opportunities; social protection and social security; and social dialogue and tripartism (ILO 2012, pp.7). These dimensions of the decent work are given in Appendix Table A.1.

The analysis is based on the published secondary data – particularly on quinquennial rounds of National Sample Survey Organisation(NSSO), Government of India.

Table 1: Percentage of usually employed in different categories of employment across rural-urban areas and overtime

Categories	Rural					Urban					Total					
	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10
Self-employed	58.1	55.8	60.2	54.2	42.4	42.2	45.4	41.1	50.3	49	52.8	47.7				
Regular salaried/wage workers	6.6	6.8	7.1	7.3	39.5	40	39.5	41.4	23.1	23.4	23.3	24.4				
Casual workers	35.3	37.4	32.8	38.6	18.1	17.8	15	17.5	26.7	27.6	23.9	28.1				

Source: NSSO report 409 (1993-94), 458 (1999-2000), 515 (2004-05) and 537 (2009-10)

Table 2: Average daily wages of casual workers and regular salaried/wage workers in 2009-10 price, in Rs.

Categories	Rural					Urban					Total					
	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10
Casual workers	54.1	67.44	73.77	93.06	84.19	102.28	99.72	121.83	69.15	84.86	86.7	107.4				
Regular salaried/wage workers	145.19	210.08	201.9	231.59	221.76	291.16	281.29	364.95	183.48	250.62	241.6	298.3				

Source: NSSO report 409 (1993-94), Report 458(1999-2000), Report 515(2004-05), Report 537 (2009-10); calculated
 Note: wage rate refers to age 15 yrs to 59 Years,

The paper is organized in five sections: In Section II, objectives, hypothesis and methodology are discussed. Section III examines different dimensions of quality of employment in India across states, rural-urban spaces and overtime. In section IV attempt is made to find some determinants of these indicators and in the last section the summary findings is given.

2.1 Objectives

The main aim of this paper is to understand the quality of employment, in the post liberalisation period with the help of certain multidimensional indicators as developed by ILO². We are particularly interested to study whether there are inequalities in the quality of employment across states, rural-urban spaces, and to study whether these inequalities have increased, decreased or remained constant overtime. We also wish to find out some of the determinants basically focussing on the economic growth.

2.2 Hypotheses

We hypothesise that-

- i. There is a gap between the developed and underdeveloped states, so far as the quality of employment is concerned.
- ii. There is a rural-urban gap so far as quality of employment is concerned.
- iii. These gaps are increasing overtime.
- iv. As the economic growth increase the quality of employment for the workers in terms of a) employment opportunity, b) social security benefits and c) social dialogue will improve.

2.3 Methodology

We narrow down our focus only on few dimensions of quality of employment proposed by ILO, due to paucity of space. The dimensions, taken for our study are- Employment Opportunity, Social

2 Note: focusing only on the most important ones, for paucity of space

Security benefits and Social Dialogue. These dimensions, indicators and variables taken for our study are given in table 3, below.

Employment opportunity is one of the key dimensions of quality of employment, such that, for the work to be decent requires employment opportunity to be adequate. So this dimensions deal with two questions- whether the individuals who are willing to do the work and seeking for it are getting the employment opportunity or not, and the type or the nature of work in which these individuals are getting the opportunity. Social security benefits is a prominent dimension, as it covers all the measures that provide benefits apart from wages or earnings, to the workers, whether in cash or in kind like-pensions, provident fund, health benefits, maternity benefits, paid leave etc. The other dimension is social dialogue the crucial aspect of decent work, which is needed to ensure that peoples' voices are expressed and heard at their work places. So, we would like to see the extent to which the workers are able to get these benefits.

This study is based on the secondary source; mainly National Sample Survey Organisation (NSSO), Government of India published data has been used. The NSSO data, mainly of four quinquennial rounds - 50th (1993-94), 55th (1999-2000), 61st (2004- 05) and 66th (2009-10), and Population census, Govt. of India data of 2001 and 2011 has been used. We have used usual status³ (principal + subsidiary status) data for all. While measuring decent work – in terms of Social security benefits - workers engaged in AGE GC (Agriculture only, excluding of growing of crops, market, gardening and horticulture and growing of crops combined with farming of animals) and non-agriculture sector is taken due to non-availability of data on all the workers, i.e. including Agriculture-growing of crops, market, gardening and horticulture. However, 37 per cent in the rural areas and 94 per cent of workers in urban areas are engaged in the AGE GC

3 The activity status on which a person spent relatively long time during the 365 days preceding the date of survey is considered as the *usual principal activity* and those who were engaged not less than 30 days during the reference year is considered as the *usual subsidiary activity* (NSSO 2009-10).

and non-agriculture sectors (NSSO, report 539,2009-10, pp i).

Table-3: *Dimensions, Indicators, categories and variables, taken for our study*

S. no	Dimensions (ILO)	Indicators (ILO)	Categories taken for our study	Variables taken for our study
1	Employment opportunities	employment to population ratio	work force participation rate(WPR)	WPR=workers/population,
		unemployment rate	unemployment rate(UR)	UR=unemployed/labour force
		informal employment	informal workers, formal workers	informal workers/total workers,
		employment by status	self-employed, casual and regular workers	% of self-employed, casual and regular workers out of total workers
2	Social security	share of population benefitting from a pension.	deprived OF social security benefits	% of regular salaried/wage & casual workers not getting the social security benefits ((i.e. PF/pension, gratuity, maternity benefit etc) in AGEGC* & non-agriculture sector
3	Social dialogue, workers & employers representation	freedom of association & collective bargaining	non -existence of union/ association	% of self-employed, casual and regular salaried/wage workers with non -existence of union/association of age 15yrs & above out of total employees

Source: “Decent work indicators: concept and Definitions” (ILO,2012) table no-A, pg no 16-17.

*AGEGC (*Agriculture only excluding of growing of crops market gardening, horticulture and growing of crops combined with farming of animals*)

All the three dimensions are studied across fifteen major states⁴ and across rural-urban spaces. For our analysis, we have categorised

4 Fifteen major states in India-Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

the states following Net State Domestic Product (NSDP)⁵ per capita (at constant 1993-94 price) in 2005-06 as developed (NSDPpc > Rs. 16,000), underdeveloped (NSDPpc < Rs. 12,000) and, moderate (Rs. 12,000 ≤ NSDPpc ≤ Rs 16,000). According to this criteria, states like Gujarat, Haryana, Maharashtra, Punjab, and Tamil Nadu are developed states; Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh are underdeveloped states; and Andhra Pradesh, Karnataka, Kerala and West Bengal are the moderate states (refer appendix-table A.2). We have analysed taking the mean value of the states in their particular groups. All India levels (including all States and Union territories) have been kept as a yardstick to compare the decent outcome, i.e. below the India level we are considering to have poor employment quality and vice-versa.

Next, we have also tried to find out the determinants of these indicators. The variables taken are (given in details in table B, in section IV) the Net State Domestic Product (NSDP), NSDP per capita, share of NSDP services out of total NSDP, share of NSDP from organised manufacturing sectors out of total NSDP, share of NSDP from unorganised manufacturing sectors out of total NSDP, fixed assets per workers in the organised and unorganised manufacturing sector, literate rate, business regulatory environment and labour law related compliance. We want to see, whether the economic growth as measured by NSDP per capita has effect on the indicators mentioned above. Apart from this, as the growth in our country is service lead growth, as well as, the number of workers in the service sectors has been increasing at a higher rate than the other industry group, we wish to see the effect of growth in the service sector on the these indicators. Besides, we wish to see the effect of growth in the organised and the unorganised manufacturing sectors on these indicators in order to understand to some extent, the effect of formal and informal sectors on the quality of employment. Moreover, education leads to self-

5 Net State Domestic product (NSDP) is defined as a measure, in monetary terms, of the volume of all goods and services produced within the boundaries of the State during a given period of time after deducting the wear and tear or depreciation, accounted without duplication(data.gov.in)

development which may in turn help to improve the condition of workers by raising their voice. Apart from this, the better business regulatory environment and better labour law regulations might also help to improve the condition of work among workers. In fact there is a huge debate going on the business regulatory environment reforms as well as labour market reforms. So, we wish to study the effect on the quality of employment.

In order to find out the determinants we have used the Least Square dummy variable technique (LSDV) using vif and hettest. We have used CMIE, NSSO, and Population Census Govt. published data. We have kept the time dummy.

3. Dimensions of Employment Quality

3.1. Employment Opportunity

3.1.1. Workforce participation rate: We can see from table 4 and figure 1 and 2, that on an average less than half of the total populations are working in India in both the locations - rural and urban areas. The total participation rate of all India level was higher in the rural areas than in the urban areas. However, overtime except in 2004-05 the participation rate has declined in rural areas, but with some fluctuations the rate has remained almost constant in the urban areas in 2009-10 in comparison to 1993-94.

While comparing different states, we see that the participation rates were higher than all India level in the developed and the moderate states in the rural areas, while were lower in the underdeveloped states. This was true even in the urban areas, except in 1993-94 in which the participation rate was also lower in the developed states in comparison to all India level. However, overtime except in 2004-05, with some fluctuations the participation rates has declined in all groups of states in the rural areas; while, it has increased in the developed states, remained almost constant in the moderate states and declined in the underdeveloped states in the urban areas.

Moreover, the higher participation rate in the rural areas than in the urban areas could be mainly because of the fact, that in the rural areas people are largely engaged in the agricultural sector where the entry barriers are low. As such the developed and the moderate states have higher NSDP from agriculture in comparison to the underdeveloped states⁶, which might have resulted in higher employment opportunity in the rural areas in these states.

However, since the inception of new economic reforms agriculture has been neglected while importance has been given to the manufacturing and service sectors (non-farm sector). In addition to this, there has also been a decline in the operational land size holding⁷ in almost all states due to population pressure which might also have lead to decrease in demand for workers in the rural areas. So far as, the rural non-farm sectors are concerned scholars argue that there are entry barriers in terms of education, age, gender etc. (Jatav and Sen,2013; Shariff and Lanjouw,2004). So, all this might have resulted in poor employment opportunities overtime in the rural areas.

Apart from these, though there are arguments that the fall in the participation rates is the result of ‘education effect’⁸, but the participation rates has decreased among all the other age groups too, which might indicate that not only education but other factors could also have lead to the fall in the participation rate. To mention, the increase in the capital intensive methods of production overtime in both agriculture and non-agriculture sectors, as has been highlighted in various studies on employment, notably Ghosh (2004), Papola and Sahu, (2012), could also be the reason for the fall in employment in the rural areas and that of fall or stagnant employment in the urban areas particularly in the underdeveloped and the moderate states. However, the opportunity seems to be rising overtime in the urban areas of the

6 & 8 www.data.gov.in

7 Agcensus.nic.in

8 Education effect implies that as the numbers of people attending higher levels of education has been increasing, the supply of total labour force has been reducing. (Thomas, 2014).

developed states despite increase in capital intensity which could be basically due to increase in the infrastructural services, construction etc in the process of growth. As such the share of NSDP from services and construction is higher in the developed states than others.

So far as, the rise in WPR in 2004-05 is concerned, it could be taken positively, but these period “1999-2005” was marked by serious agrarian crisis in India. The decline in the agriculture growth or yield had adverse effects on food supply, prices of food grains, cost of living, poverty, employment, etc. The scholars notably Abraham (2009, 2014), Himanshu, (2011) argue further, that if there is a perceived fall in the income of households, individuals particularly females tend to enter into labour force therefore leading to increase in labour force participation rate (LFPR), WPR and also unemployment rate (UR) in times of distress. In fact, there was a rise in these variables, during this period. So, some scholars, (as above) termed it as ‘income effect’. So, though the participation rate had increased, question arises on *condition of workers*.

However there are also literatures which doubts the NSSO estimates of workforce and labour force in 2004-05 (Unni & Ravendran, 2007; Papola 2012).

So, overall, this may indicate deficit in the quality of employment in terms of employment opportunity, particularly in the urban areas. However, overtime the condition seems to be deteriorating even in the rural areas. Apart from this, the quality of employment in terms of opportunity is not only lower in the underdeveloped states than the developed states, but the gap is seen to be increasing overtime.

3.1.2. Unemployment rate: The picture of employment quality seems to be disturbing in terms of lack of employment opportunity (table 5, fig.3 and 4). The total unemployment rates of all India level, seems to be higher in the urban areas than in the rural areas. However, overtime the condition has deteriorated in the rural areas, while in the urban areas, though, the rate seems to be decreasing, but it is still higher than in the rural areas.

While comparing different states, we see that the unemployment rates in both the locations were higher than all India level in the moderate and the underdeveloped states. Overtime, with some fluctuations, it has increased in the rural areas, but has declined in the urban areas in all the three categories of states.

Overall, this may indicate, lack of employment opportunity in the moderate and the underdeveloped states, particularly in the urban areas. Apart from this, the employment opportunity is declining in the rural areas, while has not improved in the urban areas in all the three states. Moreover these could be due to the reasons as mentioned above for the workforce participation rate.

3.1.3. Informal employment: Now, coming to the nature of employment, we see that, the majority of the workers in the non-agricultural sector excluding construction⁹, are not only engaged as informal workers but informalization is increasing overtime, which can be seen from high and increasing ratio of the informal workers to total workers, in table 6 and figure 5. The informal workers in the non-agricultural sector, seems to be higher in the urban areas than in the rural areas. However, the ratio has increased in the rural areas, while has declined in the urban areas.

The ratio was higher than India's level, in the moderate states in the rural areas and in the developed states in the urban areas. Most disturbingly, it has increased in the developed and the moderate states in the rural areas, while has remained constant in the developed states and declined in other states in the urban areas.

So, overall, this may imply that majority of the workers are not only getting opportunity to work in the informal sector, but over time informalization of workers is also increasing, as has been noted by various studies, notably ILO (2002), NCEUS(2009), Papola and Sahu(2012), Heintz and Pollin (2003) etc. This may further indicate poor quality of employment.

9 Agriculture workers and construction has been due to non-availability of NSSO (Government published data) data for the year 2010-11.

This is because, as highlighted by various studies notably ILO (2013,2002), NCEUS(2009), Papola and Sahu(2012), Heintz and Pollin (2003), Unni(2002), etc, the informal workers are engaged with irregular and insecure jobs, absence of social protection, low productivity and earnings, lack of work places etc, and in addition, the informal sector enterprises face higher constraints on growth due to lack of access to credit, technology, marketing, skills and also incentives. This may indicate poor condition of work among informal workers.

Apart from this, it was found that the large number of workers in the informal sectors are engaged in the sub-sectors, i.e. in the own account enterprises¹⁰, which have lower productivity per enterprise as well as productivity per worker in comparison to the establishment sector (NSSO report 537, 2009-10, pp. 25; also refer to tables 7-8); all these being less than the Government stipulated minimum wage in the corresponding period! This may have negative repercussions on the quality of employment.

So, overall, this may indicate, poor quality of employment among majority of the workers. The rural-urban gap exists, so far as, the productivity is concerned. Though, informalization is higher and increasing in the developed states than the underdeveloped states, indicating poor employment quality in developed states, but the productivity is higher in the developed than the underdeveloped states (NSSO, rp 69,2010-11,pp 33)

10 Own-account Enterprise: An enterprise, which is run without any hired worker employed on a fairly regular basis. i.e. self-employment. Establishment: An enterprise which is employing at least one hired worker on a fairly regular basis. Paid or unpaid apprentices, paid household member/servant/resident worker in an enterprise are considered as hired workers. (NSSO, report 67, 2010-11, pp- 7)

Table-7: Informal Sector in India : over the period 1999-00 to 2010-11.

	1999-2000	2010-11
Employment per enterprise (overall)	1.8	1.9
Emp. / ent. in overwhelmingly large & expanding self-emp sector (i.e. oae sector)	1.5	1.4

Source: NSSO Report 459 (1999-2000), report 67 (2010-11). Per enterprise values have been calculated by the author.

Table- 8: Estimated gross value added (GVA in Rs.) per-enterprise and per-worker in 2010-11 at current price

Indicator	Rural		Urban		Total	
	OAE	Establi- shment	OAE	Establi- shment	OAE	Establi- shment
GVA per- worker	29872	63997	56286	101878	40498	90495
GVA per- enterprise	44101	277829	76813	438003	57883	390200

Source: NSSO 67th Round, 2010-11, pp 25-26, GVA per worker-calculated by the author.

3.1.4. Employment Status: So far as, the different categories of employment is concerned, which is given in table 9, and figure 6 and 7, we see, that in the rural areas the percentage share of the self-employed and the casual workers were higher while the most advantaged category, i.e. the regular workers were lower more. In the urban areas more than about two-fifth and near about two-fifth were self-employed and regular workers respectively, while the rest were casual workers. Overtime, except in 2004-05, the self-employed workers have declined, while the others particularly the casual workers have increased in the rural areas. In the urban areas except in 2004-05, the self-employed workers has declined but by a very low rate and that of regular workers has increased, but the share of casual workers has remained almost constant. In the year 2004-05, there was an increase in self-employment and decline in casual workers.

While comparing different states, we see that in the rural areas, the shares of the self employed workers were higher than all India

level particularly in the underdeveloped states, and that of the casual and the regular workers were higher in the developed and the moderate states. Overtime, the share of the self-employed has decreased and that of others particularly the casual workers has increased in all the three groups of states. In the urban areas, the shares of the self-employed workers were higher than all India level in the underdeveloped, the casual workers in the moderate and that of the regular workers in the developed states. Overtime, these states showed different trends unlike the rural areas, in the developed states the share of the casual workers remained almost stagnant, but the shares of the self employed decreased, and that of the regular workers increased. In the moderate states the share of the self-employed remained stagnant, the share of the casual workers declined, while that of the regular workers has increased. In the underdeveloped states the share of the self-employed remained stagnant, the share of the regular workers decreased, and that of the casual workers has increased. In short, this may indicate that the rural-urban gap exists so far as share of regular workers and casual workers is concerned, and the condition in terms of casualisation seems to have deteriorated in the economically developed states in the rural areas while in the developed and the underdeveloped states in the urban areas.

Moreover, the presence of large share of casual workers, and its increase overtime, particularly in the rural areas may indicate poor employment quality, because, the casual workers are considered to be the worst form of labour, particularly in comparison to regular salaried/wage workers. As such the studies argue that the regular workers are the most privileged than other categories of workers particularly casual workers, in terms of stability, regularity, job and social security, relative earnings etc. However, the self-employed workers are mixed, as it includes work in own large farms and enterprises, with high income as well as own account work in tiny farms and enterprises with low income (Papola and Sahu, 2012).

Apart from this, the condition of work among the self-employed workers particularly in the non-farm sectors seems to be disturbing.

As seen in table 7, the productivity per worker and productivity per enterprises of the own account enterprises i.e. self-employment is lower than the other sub-sector. This, all may indicate that the majority of the workers are getting opportunity in the poor category. This is particularly true in rural areas.

The increase in the casual workers and fall in the self-employed workers in the rural areas could be understood from the fact that overtime; there has been a decrease in the land size holding, or an increase in the landless farmers. This might have increased the casual workforce. Apart from this, increase in the casual workers in the rural areas, particularly after 2005 could also be due to the public work programme undertaken by the Government of India particularly, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)¹¹. The National report on MGNREGA by the Ministry of Rural development, Government of India (2010) reports that 4.27 crore households were provided employment which was 2.10 crore in 2006-07. As such, increase in casual workforce particularly in moderate and underdeveloped states could be due to rise in MGNREGA programme, as the number of households provided jobs in 2009-10 was on an average higher in these states than the developed states¹².

So far as, the urban areas are concerned, we see that the condition of workers in terms of increase in casual workforce, is poor and deteriorating in the underdeveloped states than others, as expected. However the share of the casual workers has also remained almost constant in the developed states, which could be due to the increase in the infrastructural services like construction by a higher rate than the others. As such, the NSDP from services, construction is higher among the developed states than the others, as mentioned above.

11 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household whose adult-members volunteer to do unskilled manual work". nrega.nic.in, (on 2-07-2015).

12 www.mgnrega.nic.in

So, overall, we may say that the quality of employment, in terms of existence of casualization of workforce is lower in the rural areas than in the urban areas. Apart from this the rural-urban gap is widening overtime. While comparing different states, it is poor in the developed and the moderate states in the rural areas, and in the moderate states in the urban areas. However, it is deteriorating in all three groups of states particularly in developed and moderate states in the rural areas and in underdeveloped and developed states in the urban areas.

3.2. Social Security Benefits

When it comes to the social security benefits of the workers in the non-agriculture and AGEGC sector, the quality of employment seems to be poor, as is evident from table 11 and figure 8 and 9. Almost all of the casual workers and more than half of the regular workers did not have social security benefits in both the areas. The share was slightly higher for the regular workers in the rural areas than in the urban areas, while no such differences exist among the casual workers. Overtime, in both the areas, the share has remained almost constant for regular workers, while has increased among the casual workers but by a low rate.

While comparing different states, the share of the casual workers in both the areas and that of the rural regular workers deprived of these benefits were higher than all India level in the developed and the moderate states. Among the urban regular workers it was higher in the developed states. Most disturbingly, share of casual workers in both the areas, has increased in the moderate and the underdeveloped states, though by a low rate, while has remained almost constant in the developed states. Among the rural regular workers, the shares has increased in the moderate states, but has remained almost constant in the developed and underdeveloped states; while has remained almost constant in the developed and the moderate states, however, interestingly it has decreased in the underdeveloped states.

Moreover, the large shares of workers deprived of the social security could be understood from the fact that majority of the workers are engaged in the informal sector. As, has been highlighted by many international and national writings that, it is difficult to enforce rules and regulations framed for the labours by the Government, in the informal sector (ILO, 2002; NCEUS, 2009). Moreover, as seen in table 7 and 8 above, majority of the workers are engaged in those sub sectors of informal sector where the productivity is low, and in addition the productivity per worker in the informal sector is found to be less than the minimum wage stipulated by the Government. So, the limited earnings among the informal sector employers, might limit the social security benefits to the workers. Beside these, the large share of workers lack voice at their work places, which can be understood from the large share of workers not associated with any unions, as given in the next dimension social dialogue (refer table 10). Apart from this, the lack of employment opportunity (given by unemployment rate) has created excess supply of workers, which might have reduced benefits to the workers. So, all this might result in absence or less social security benefits among workers.

Moreover, these might be the reasons for deprivation of social security benefits among huge share of workers in the developed states. As such, the share of informal workers (table 5), the shares of workers without unions (table 10), increase in supply of labourers¹³, are particularly higher in the developed states than others.

Overall, the majority of the workforce deprived of the social security benefits, may imply poor quality of employment, particularly among the casual workers. Moreover the condition seems to be poor in the economically developed states for almost all workers in contrast to the expected result. Most disturbingly the condition has either deteriorated or remained stagnant. Besides, the rural-urban

13 The high supply of labourers in the developed states could be the result of migration from other states. Out of total mmigrations, migration from other states, was around 34% in developed states in comparison to 24% in the underdeveloped states in 2009-10, and the main reason for migration was found to be employment (NSSO, report 533,pp- 65,68)

gap exists among the regular workers, and is more pronounced in the moderate and the underdeveloped states which seem to be increasing overtime.

3.3 Social dialogue

More than half of the workers were not associated with any unions in India, which is given in table 12, figure 10 and 11. The percentage share was particularly higher among self-employed followed by casual and regular workers respectively. More than 80% in the rural and 65% in the urban areas of the self employed workers; more than 75% of casual workers and more than 50% of regular workers in both the areas, were not associated with any unions. Most disturbingly, the shares of workers have been increasing overtime. The share was higher in the rural areas than the urban areas among the self-employed and the casual workers, while was higher in the urban areas than the rural areas among the regular workers. However, the rate of increase shows that the rural-urban gap has more or less decreased among self-employed, remained stagnant among regular workers, while increased among casual workers.

While comparing different states, we see that the shares of self-employed workers without any unions were higher than India's level in the developed and the underdeveloped states in 2004-05 while were higher only in the underdeveloped states in 2009-10 in the rural areas. It was higher than India's level in both the developed and the underdeveloped states in the urban areas. The shares of regular workers were higher in the developed states in 2004-05 but were higher in both developed and moderate states in 2009-10 in the rural areas, while was higher in the developed states in the urban areas. The shares of casual workers were higher than India's level in both the developed and the underdeveloped states in both the areas. Apart from these shares has increased overtime in almost all of these states in both the areas irrespective of economic status

The huge share of workers without any unions or associations could be understood from the fact that huge workers are involved in

informal sectors in India, as such, literatures have highlighted that the probability of joining union is less in informal sectors (Pal, 2008; Rayov and Livingstone, 2014). Moreover, in the informal sector the average number of workers by definition is less than ten¹⁴, which however was estimated to be only 1.8 in the non-agricultural sector during the period 1999-2000 and 2010-11¹⁵. Apart from this, the number of ‘establishment’¹⁶ which consists of more workers per enterprise is lower than the ‘own account enterprises’ (NSSO, report 459, 1999-2000; report 67, 2010-11). So, this might have negative repercussions on forming the unions in the informal sector. Besides, the majority of the workers are unskilled, mainly temporary and without any job contracts, indicating that they might change their type of work in future, so that might reduce the probability of joining any particular union. This is particularly true for the casual and the regular workers as the temporary workers were estimated to be 64 per cent and 32.8 percent respectively, while 63.5 per cent and 94 per cent of workers were without job contracts respectively, in 2009-10 (NSSO, report 537, 2009-10). Moreover, the lack of stability and security of job on the face of high unemployment rate, might restrict the workers to join unions or enter into negotiations as they fear to lose jobs, which is an important source of livelihood.

Moreover in the underdeveloped states the number of establishment is less, literacy rate is low, unemployment rate is high than the other states, which might have lead to high share of workers without any unions.

14 *Informal Sector*: “The unorganized sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers”. (NCEUS, 2009, pp 3)

15 In 2010-11- informal sector excluding agriculture and construction

16 Own-account Enterprise: An enterprise, which is run without any hired worker employed on a fairly regular basis. i.e. self-employment. Establishment: An enterprise which is employing at least one hired worker on a fairly regular basis. Paid or unpaid apprentices, paid household member/servant/resident worker in an enterprise are considered as hired workers. (NSSO, report 67, 2010-11, pp- 7)

However, despite higher literacy, more establishment, and less unemployment than the underdeveloped states the percentage share of workers without unions is still high in the developed states¹⁷. However, in the developed states the stability and security of the workers in terms of the share of temporary workers and workers not having written contracts is higher than the other states, which might have resulted in less number of workers in unions. (NSSO report 519:2004-05, report 537:2009-10). Apart from this, the strength of the unions or how effective unions are might also be the reason for joining unions. As such, unions might not be active in the informal sector than the formal sector, due to its nature. So, overall we may say, that quality of employment in terms of social dialogue is poor particularly among the casual workers. Apart from this there exists rural-urban gaps for all types of workers. Moreover, the condition seems to be poor in the developed states together with the underdeveloped states. However, the quality is deteriorating by a higher rate in the developed states than the underdeveloped particularly among the urban regular salaried/wage workers and the rural casual workers.

4. Some determinants of the quality of employment

Regression 1 and 2: Given the data, the regression results (given below) show that growth in the service and the organized manufacturing sectors (as measured by the NSDP from services out of total NSDP and NSDP from organized manufacturing sectors out of total NSDP) has positive and significant impact on the workforce participation rate (wpr) in the rural areas. While the growth in the unorganised manufacturing sector and the literacy rate has negative and significant effect on the wpr in the rural areas. In the urban areas the growth in the service sector has positive and significant impact on the workforce participation rate (wpr) in the urban areas, while literacy rate has negative and significant effect on the wpr in the urban areas. Controlling the population, we get the population has negative and significant effect in the urban areas. The time variant is

17 Note- a more detailed analysis will be attempted in future at disaggregate level.

not so acute because the time dummy shows insignificant result.

This may indicate that with the growth in the service sectors the opportunity of employment will increase in both the areas. Besides, growth in the organised manufacturing sector may also increase wpr in the rural areas. Moreover, the negative impact of education on the wpr may indicate that the jobs are being generated of a poor quality.

This seems to have strengthened the hypothesis 4a, that the economic growth will increase the employment opportunity particularly growth in service sectors.

Regression 2 and 3: Given the data, the regression results show that the overall economic growth, growth of the organized manufacturing sectors and the service sectors; the better business regulatory environment overall, as well as, in terms of labour law related compliances has negative but significant effect on the share of the regular workers getting the social security benefits in the urban areas. However, in the rural areas growth in the service sectors, and the better business regulatory environment has negative and significant effect on the percentage of workers getting the social security benefits. Controlling the total population, we see total population has no significant effect on share of regular workers getting the social security benefits. The time variant is not so acute because the time dummy shows insignificant result.

This may indicate that the economic growth, the growth in service sectors and the organized manufacturing sectors, better business regulatory environment in the urban areas while growth in the service sector and the better business regulatory environment in the rural areas will lead to deprivation of the social security among the regular workers. This might in turn imply that with the increase in the economic growth, service sectors and the organized manufacturing sector, and better business regulatory environment, employment is being generated of poor quality in terms of lack of social security.

This is in contrast to our hypotheis 4b, that the social security among workers will increase with economic growth.

Regression 5 and 6: Given the data, the regression result shows that the economic growth (NSDPpc), and the growth of organized manufacturing sectors, business regulatory environment overall, in both the areas including has negative and significant effect on the share of the regular workers associated with the unions/associations. However, the effect of NSDPpc seems to be negligible. Apart from this, growth of the service sectors and the labour law related compliance also has negative and significant impact on the share of regular workers associated with the unions/associations in the urban areas. Controlling the population, we get the population has no significant effect. The time variant is not so acute because the time dummy shows insignificant result.

This may indicate that higher the economic growth, growth in the organized manufacturing, better business regulatory environment overall, will result in reduce voice among the regular workers, as measured by the share of regular workers associated with the unions/associations in both the areas. In addition the growth in the service sectors as well as, business regulatory environment in terms of labour law related compliance sector will also lower voice among regular workers in the urban areas. This is in contrast to our hypothesis 4c, that the social dialogue among workers will increase with economic growth.

Reg no.	Independent variables	nsdppc	sernsdp	ognsdp	ogfawk	ungnsdp	ungfawk	rurlit/ urbliit	popn	dummy	R ²	no of obs.
Dependent variable												
		9900 9905										
1	rurwpr	7.95	98.9 ***	52.8 ***	-5.67	-150.0 *	-0.0002	-0.32 ***	-1.08	-722	0.56	45
2	urbwpr	0.00004 ***	42.50 ***	10.76	-4.15	38.95	-0.00008	-2.5 **	-3.01 *	-367	0.47	45

*, ** and *** imply 10%, 5% and 1% levels of significance respectively.

Reg no.	Independent variables	nsdppc	sernsdp	ognsdp	gblawt	gblaw	popn	dummy	R ²	no of obs	
Dependent variable											
		_9010									
3	rursob		-0.00006	-65.3 *	-18.9	-23.3 ***	-6.5	-1.11	-2.16	0.60	30
4	urbsob		-0.0004 **	-61.2 **	-39.8 ***	-14.6 **	-5.7 *	-2.6	-6.7 *	0.70	30

*, ** and *** imply 10%, 5% and 1% levels of significance respectively.

Reg no.	Independent variables	nsdppc	ognsdp	sernsdp	gblawt	gblaw	rurlit/ urbliit	popn	dummy	R ²	no of obs
Dependent variable											
		_9010									
5	rursd	-0.0005 ***	-46.4 ***	-16.3 **	-11.8 ***	0.25	-5.8	-53	0.79	0.82	30
6	urbsd	-0.0005 ***	-55.6 ***	-72.8 *	-6.8 *	0.69	-5.7	-3.55	0.82	0.82	30

*, ** and *** imply 10%, 5% and 1% levels of significance respectively.

Table B: *Variables and codes taken for regression*

codes	variables	Comments (if any)
rwpr	workforce participation rate in rural areas	
urbwpr	workforce participation rate in urban areas	
rursob	share of regular workers getting social security benefits out of total regular workers in the rural areas	
urbsob	share of regular workers getting social security benefits out of total regular workers in the urban areas	
rursd	share of regular workers in unions/associations out of total regular workers in the rural areas	
urbsd	share of regular workers in unions/associations out of total regular workers in the urban areas	
nsdppc	net state domestic product (nsdp) per capita	
ognsdp	share of NSDP from organised manufacturing sectors out of total NSDP	
ungnsdp	share of NSDP from unorganised manufacturing sectors out of total NSDP	
sernsdp	share of NSDP from service sectors out of total NSDP	
ogfawk	fixed assets per worker in the organised manufacturing sector	
ungfawk	fixed assets per worker in the unorganised manufacturing sector	
rurlit	literacy rate in the rural areas	
urblit	literacy rate in the urban areas	
gblawtt	business regulatory environment in the manufacturing sector (dummy for better performing states : 0-worse performing states)	For two years taken the same year (i.e. 2014) data
gblaw	labour related law compliance in the manufacturing sector (dummy for better performing states: 0-worse performing states)	
popn	total population	control variable
dummy 9900	year 1999-2000	year dummy
dummy 9905	year 2004-05	year dummy
dummy 9010	year 2009-10	year dummy

5. Summary Findings

Overall, the picture of quality of employment seems to be disturbing in India, as measured by the three dimensions of decent work proposed by ILO. Apart from this, there exist lots of variations across states and rural-urban spaces. In fact, most of these gaps seem to be increasing overtime.

As such, we see that there is a lack of opportunity of employment which can be understood from the huge unemployment rate. Apart from these, the workers are not only engaged majorly in the informal sectors, but overtime informalization is increasing. Most disturbingly, within the informal sectors workers are engaged in those sub-sectors which have lower per worker and per enterprise productivity than the other sector. Besides, the share of the casual workers is higher particularly in rural areas, and is increasing overtime. So, this might indicate that there is not only the lack of employment opportunity, but those workers getting the opportunity of employment are engaged in worse forms of labour. Apart from this, we see that the huge share of workers- almost all casual workers and more than half of the regular workers, are deprived of social security benefits. So far as, social dialogue is concerned the situation is not encouraging as more than of 75% of self-employed and casual workers and more than of half of the regular workers are not associated with any unions, indicating lack of voice among workers. So, all this might imply poor conditions of work among workers.

Moreover, in terms of indicators, that focuses on the quality in general and quantity in particular like employment opportunity given by participation rates, unemployment rate, categories of employment- the developed states seems to be better than the less developed states. But the condition of workers in terms of qualitative indicators like Social security benefits and Social dialogue or freedom of association, informal workers, is poor in the developed states than the underdeveloped states. So, we may say that though the opportunity of employment is higher in the developed states but the condition of workers in terms of nature of employment, social security benefits

and social dialogue is poor in these states than others. In addition to these, overtime, most of the indicators has either deteriorated or remained constant particularly in the developed states.

So far as, the rural-urban gaps are concerned the employment opportunity seems to be higher in the rural areas than in the urban areas, but overtime the situation has deteriorated in the rural areas, while has not yet improved in the urban areas. However, for other indicators like nature of employment (in terms of casualization), social security benefits and social dialogue the condition of workers in the rural areas not only seems to be lower but is deteriorating overtime for all workers, except among the casual workers in terms of social security benefits. This may indicate that there exists rural-urban gap and these gap is increasing overtime, excluding opportunity of employment in terms of indicators like-workforce participation rate and unemployment rate.

So, overall, we see that the *hypothesis 2* seems to have strengthened. However, *hypothesis 1 and 3* : needs to be modified. As such we see that except the quantity aspect of employment almost all of the indicators of quality, to be poor in the developed states. So far as, hypothesis 3 is concerned it seems to be strengthened for rural-urban areas, as most of the gaps seems to be increasing, but between the states, the performance of the developed states seems to be falling particularly in terms of qualitative aspect of employment.

In addition to it, we find that the economic growth, growth in the service sectors and organised manufacturing sectors, though has contributed to the increase in the employment opportunity but the quality of employment among regular workers, in terms of the social security benefits, and social dialogue has been declined. So, the *hypothesis 4* needs to be modified. Apart from this the better business regulatory environment has also negative effect on the social security benefits, and social dialogue. Thus, this paper finds support for some accepted views, but contrary to the usual understanding, also finds out that, growth may not be sufficient to ensure quality of employment in general.

Figures

Figure 1

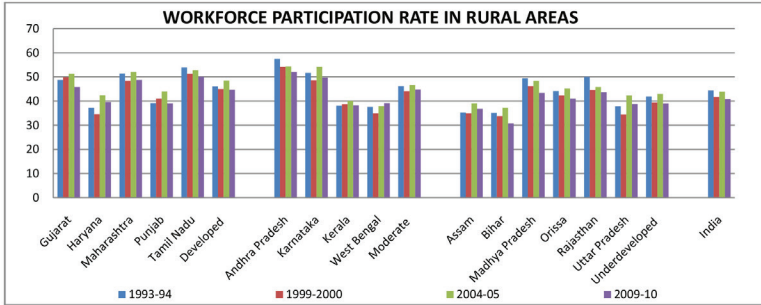


Figure 2

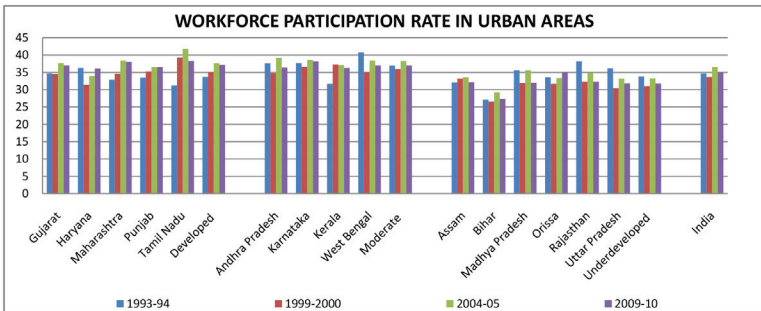


Figure 3

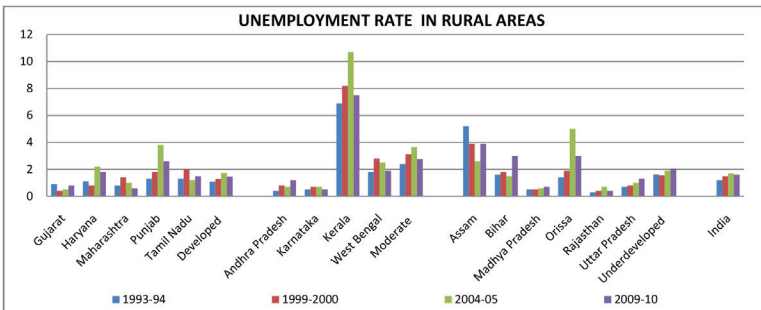


Figure 4

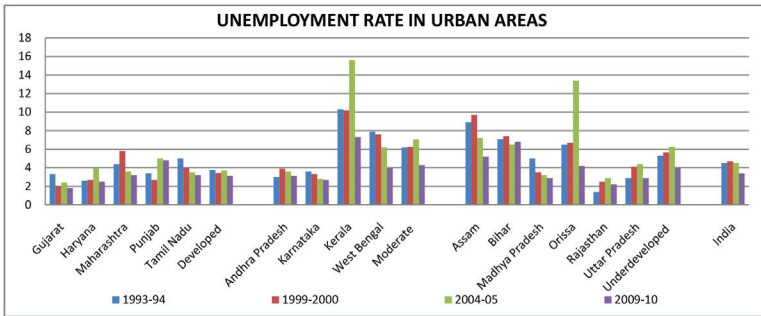


Figure 5

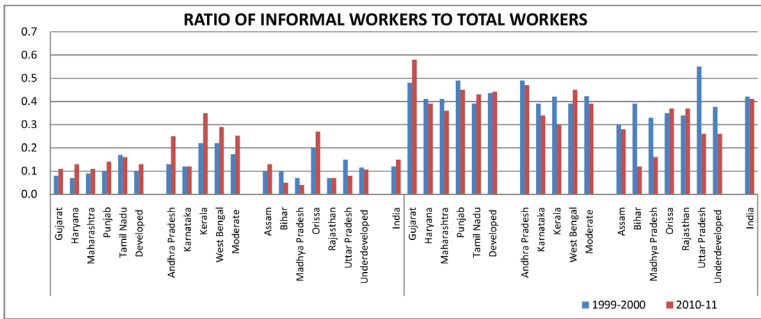


Figure 6

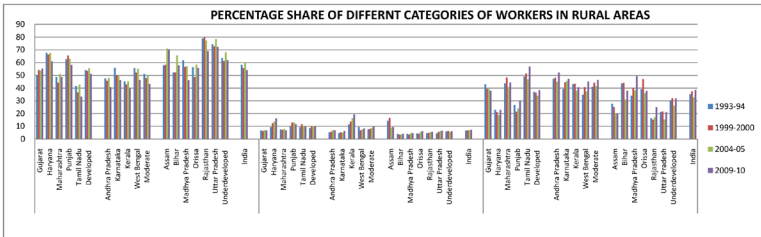


Figure 7

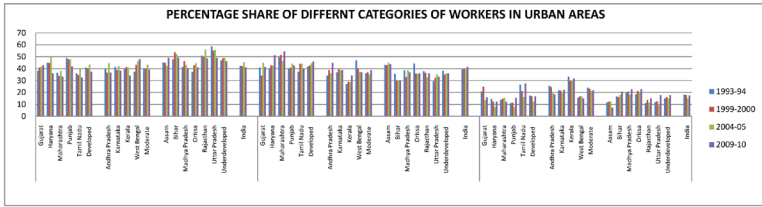


Figure 8

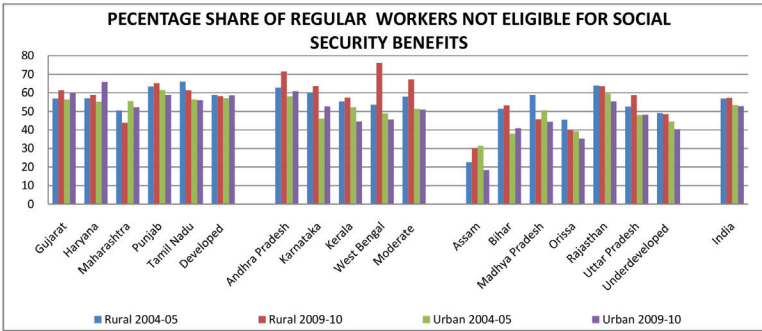


Figure 9

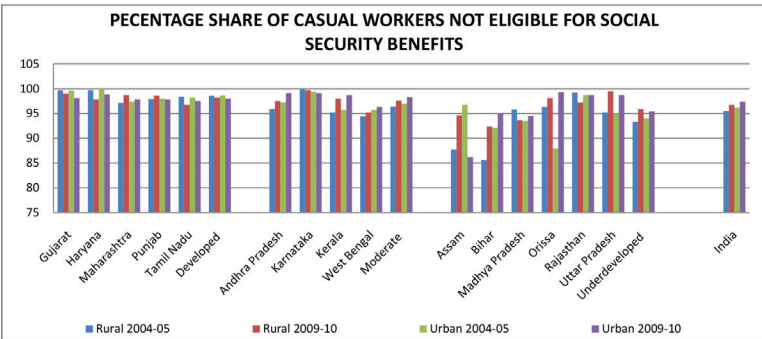


Figure 10

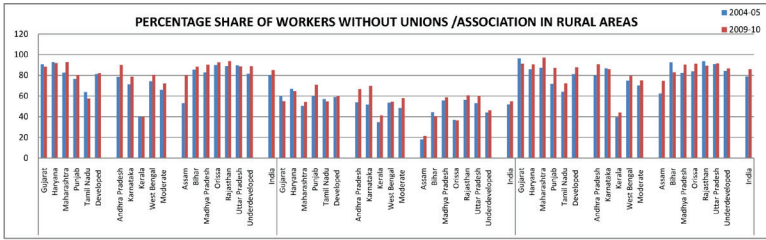
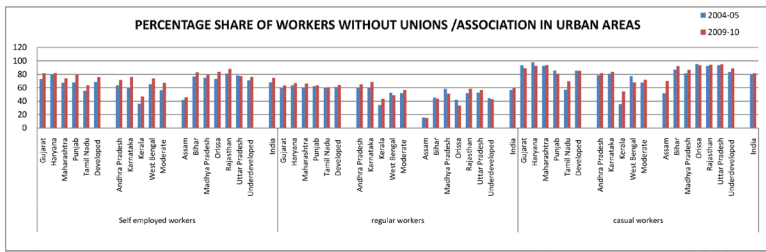


Figure 11



Tables

Table 4: The Workforce Participation Rate Across States And Rural-Urban Areas

Sl no	States	Rural					Urban				
		1993-94	1999-2000	2004-05	2009-10	2014-15	1993-94	1999-2000	2004-05	2009-10	2014-15
1	Gujarat	48.8	49.9	51.3	45.9	34.7	34.5	37.7	37.0	37.0	
2	Haryana	37.2	34.6	42.4	39.6	36.3	31.4	33.9	36.1	36.1	
3	Maharashtra	51.4	48.4	52.1	48.8	32.9	34.6	38.4	38.0	38.0	
4	Punjab	39.2	41.0	44.0	39.1	33.5	35.3	36.5	36.5	36.5	
5	Tamil Nadu	53.9	51.3	52.8	50.1	31.2	39.3	41.8	38.3	38.3	
	Means of developed states	46.1	45.0	48.5	44.7	33.7	35.0	37.7	37.2	37.2	
6	Andhra Pradesh	57.5	54.2	54.4	52.1	37.6	34.8	39.2	36.4	36.4	
7	Karnataka	51.7	48.7	54.2	49.7	37.7	36.6	38.6	38.2	38.2	
8	Kerala	38.1	38.7	40.0	38.3	31.7	37.3	37.1	36.3	36.3	
9	West Bengal	37.6	34.9	37.9	39.2	40.8	35.0	38.4	37.0	37.0	
	Means of moderate states	46.2	44.1	46.6	44.8	37.0	35.9	38.3	37.0	37.0	
10	Assam	35.3	34.9	39.1	36.8	32.1	33.2	33.6	32.2	32.2	
11	Bihar	35.1	33.8	37.2	30.8	27.1	26.6	29.2	27.3	27.3	
12	Madhya Pradesh	49.4	46.2	48.4	43.4	35.6	31.9	35.6	32.0	32.0	
13	Orissa	44.2	42.3	45.2	41.0	33.6	31.7	33.4	35.0	35.0	
14	Rajasthan	50.0	44.6	45.9	43.6	38.2	32.3	34.9	32.3	32.3	
15	Uttar Pradesh	37.8	34.5	42.3	38.8	36.2	30.4	33.2	31.8	31.8	
	Means of underdeveloped states	42.0	39.4	43.0	39.1	33.8	31.0	33.3	31.8	31.8	
16	India	44.4	41.7	43.9	40.8	34.7	33.7	36.5	35.0	35.0	

Source: NSSO reports 409(1993-94); 458(1999-2000); 515 (2004-05) and 537(2009-10)

Table -5: THE Unemployment rate across states and rural-urban areas

Sl no	States	Rural					Urban				
		1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10		
1	Gujarat	0.9	0.4	0.5	0.8	3.3	2.0	2.4	1.8		
2	Haryana	1.1	0.8	2.2	1.8	2.6	2.7	4.0	2.5		
3	Maharashtra	0.8	1.4	1.0	0.6	4.4	5.8	3.6	3.2		
4	Punjab	1.3	1.8	3.8	2.6	3.4	2.7	5.0	4.8		
5	Tamil Nadu	1.3	2.0	1.2	1.5	5.0	4.0	3.5	3.2		
	Means of developed states	1.1	1.3	1.7	1.5	3.7	3.4	3.7	3.1		
6	Andhra Pradesh	0.4	0.8	0.7	1.2	3.0	3.9	3.6	3.1		
7	Karnataka	0.5	0.7	0.7	0.5	3.6	3.3	2.8	2.7		
8	Kerala	6.9	8.2	10.7	7.5	10.3	10.2	15.6	7.3		
9	West Bengal	1.8	2.8	2.5	1.9	7.9	7.6	6.2	4.0		
	Means of moderate states	2.4	3.1	3.7	2.8	6.2	6.3	7.1	4.3		
10	Assam	5.2	3.9	2.6	3.9	8.9	9.7	7.2	5.2		
11	Bihar	1.6	1.8	1.5	3.0	7.1	7.4	6.5	6.8		
12	Madhya Pradesh	0.5	0.5	0.6	0.7	5.0	3.5	3.2	2.9		
13	Orissa	1.4	1.9	5.0	3.0	6.5	6.7	13.4	4.2		
14	Rajasthan	0.3	0.4	0.7	0.4	1.4	2.5	2.9	2.2		
15	Uttar Pradesh	0.7	0.8	1.0	1.3	2.9	4.1	4.4	2.9		
	Means of underdeveloped states	1.6	1.6	1.9	2.1	5.3	5.7	6.3	4.0		
16	India	1.2	1.5	1.7	1.6	4.5	4.7	4.5	3.4		

Source: same as above

Table 6: *The Ratio Of Informal Workers To Total Workers Across States And Rural-Urban Areas (Excluding Agriculture And Construction)*

sl no	States	rural		urban	
		1999-2000	2010-11	1999-2000	2010-11
1	Gujarat	0.08	0.11	0.48	0.58
2	Haryana	0.07	0.13	0.41	0.39
3	Maharashtra	0.09	0.11	0.41	0.36
4	Punjab	0.10	0.14	0.49	0.45
5	Tamil Nadu	0.17	0.16	0.39	0.43
	Means of developed states	0.10	0.13	0.44	0.44
6	Andhra Pradesh	0.13	0.25	0.49	0.47
7	Karnataka	0.12	0.12	0.39	0.34
8	Kerala	0.22	0.35	0.42	0.30
9	West Bengal	0.22	0.29	0.39	0.45
	Means of moderate states	0.17	0.25	0.42	0.39
10	Assam	0.10	0.13	0.30	0.28
11	Bihar	0.10	0.05	0.39	0.12
12	Madhya Pradesh	0.07	0.04	0.33	0.16
13	Orissa	0.20	0.27	0.35	0.37
14	Rajasthan	0.07	0.07	0.34	0.37
15	Uttar Pradesh	0.15	0.08	0.55	0.26
	Means of under-developed states	0.12	0.11	0.38	0.26
16	India	0.12	0.15	0.42	0.41

Source: Population Census 2001, 2011, Nsso report 459-1999-2000, report 67 2010-11

Table 9: Percentage Of Usually Employed Persons In Different Categories Of Employment Across States In The Rural Areas

Sl no	States	self employed				regular workers				casual workers			
		1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10	1993-94	1999-2000	2004-05	2009-10
1	Gujarat	50.2	54.2	53.6	55.3	6.8	6.3	7.1	6.7	43.0	39.5	39.3	38.0
2	Haryana	67.7	66.4	67.6	60.9	9.4	12.4	13.7	16.3	22.9	21.2	18.7	22.9
3	Maharashtra	48.7	44.3	51.1	48.7	7.6	7.3	7.9	6.9	43.7	48.4	40.9	44.4
4	Punjab	62.7	65.5	63.1	58.1	10.5	13.0	12.9	11.8	26.8	21.5	24.0	30.1
5	Tamil Nadu	41.6	36.7	42.7	33.3	9.3	11.8	10.4	9.9	49.1	51.5	47.0	56.9
	Means of developed states	54.2	53.4	55.6	51.3	8.7	10.2	10.4	10.3	37.1	36.4	34.0	38.5
6	Andhra Pradesh	47.5	45.8	47.9	40.8	5.2	5.9	7.2	6.9	47.3	48.3	45.0	52.2
7	Karnataka	55.9	50.2	49.3	46.3	4.8	5.3	5.0	6.4	39.3	44.5	45.7	47.3
8	Kerala	45.4	42.9	45.4	39.8	11.5	13.7	16.4	19.4	43.1	43.4	38.1	40.7
9	West Bengal	55.7	52.2	55.2	46.3	9.5	7.0	7.5	8.4	34.8	40.8	37.3	45.3
	Means of moderate states	51.1	47.8	49.5	43.3	7.8	8.0	9.0	10.3	41.1	44.3	41.5	46.4
10	Assam	57.8	58.2	71.0	70.5	14.4	16.6	9.1	9.4	27.8	25.2	19.9	20.1
11	Bihar	52.3	52.3	65.6	57.8	4.0	3.5	3.5	4.2	43.7	44.2	31.0	38.0
12	Madhya Pradesh	61.9	56.6	57.2	46.2	4.0	3.5	4.6	4.7	34.1	39.9	38.3	49.3
13	Orissa	56.4	48.7	58.4	55.8	4.5	4.2	5.6	6.3	39.1	47.1	36.0	37.9
14	Rajasthan	79.0	79.9	77.4	69.1	4.6	4.9	5.4	5.8	16.4	15.2	17.2	25.1
15	Uttar Pradesh	74.3	72.7	78.4	72.3	4.5	5.6	6.3	6.5	21.2	21.7	15.3	21.2
	Means of underdeveloped states	63.6	61.4	68.0	62.0	6.0	6.4	5.8	6.2	30.4	32.2	26.3	31.9
	India	58.1	55.8	60.2	54.2	6.6	6.8	7.1	7.3	35.3	37.4	32.8	38.6

Source: NSSO reports 409(1993-94); 458(1999-2000); 515 (2004-05) and 537(2009-10)

Table 10: Percentage Of Usually Employed Persons In Different Categories Of Employment Across States In The Urban Areas

Sl no	States	self employed					regular workers					casual workers				
		1993-94	1999-2000	2004-05	2009-10	2009-10	1993-94	1999-2000	2004-05	2009-10	2009-10	1993-94	1999-2000	2004-05	2009-10	
1	Gujarat	38.3	41.0	41.7	42.8	40.9	34.1	44.9	41.3	20.8	24.9	13.5	16.0			
2	Haryana	45.0	44.8	49.7	36.2	40.4	42.8	42.5	51.3	14.6	12.4	7.8	12.5			
3	Maharashtra	36.6	33.8	38.1	33.4	49.6	51.5	46.5	54.5	13.8	14.7	15.5	12.1			
4	Punjab	48.9	47.7	47.8	41.8	40.0	40.9	44.3	42.7	11.1	11.4	7.9	15.5			
5	Tamil Nadu	36.1	34.7	39.8	32.5	37.3	44.1	44.1	39.9	26.6	21.2	16.1	27.6			
	Means of developed states	41.0	40.4	43.4	37.3	41.6	42.7	44.5	45.9	17.4	16.9	12.2	16.7			
6	Andhra Pradesh	40.3	36.7	44.5	36.7	34.1	38.7	36.1	44.8	25.6	24.6	19.4	18.5			
7	Karnataka	41.3	38.8	42.1	38.3	36.9	39.6	38.6	38.7	21.8	21.6	19.3	22.2			
8	Kerala	39.8	41.3	41.1	34.1	26.8	29.1	28.7	34.2	33.4	29.6	30.1	31.8			
9	West Bengal	37.3	43.2	46.2	48.1	47.0	40.0	37.2	37.0	15.7	16.8	16.6	14.9			
	Means of moderate states	39.7	40.0	43.5	39.3	36.2	36.9	35.2	38.7	24.1	23.2	21.4	21.9			
10	Assam	45.3	44.7	42.3	49.0	43.1	42.9	45.1	43.8	11.6	12.4	12.6	7.2			
11	Bihar	47.8	53.7	52.2	49.1	35.6	30.2	29.7	30.2	16.6	16.1	18.1	20.7			
12	Madhya Pradesh	41.3	46.3	43.2	40.5	38.5	33.0	38.8	36.9	20.2	20.7	18.1	22.7			
13	Orissa	37.2	42.8	44.4	41.1	44.3	35.8	35.6	36.2	18.5	21.4	20.0	22.8			
14	Rajasthan	51.0	49.9	56.0	48.6	37.9	36.5	32.6	36.2	11.1	13.6	11.4	15.2			
15	Uttar Pradesh	58.7	55.0	55.8	49.0	29.5	32.3	35.2	33.3	11.8	12.7	9.1	17.7			
	Means of underdeveloped states	46.9	48.7	49.0	46.2	38.2	35.1	36.2	36.1	15.0	16.2	14.9	17.7			
	India	42.4	42.2	45.4	41.1	39.5	40.0	39.5	41.4	18.1	17.8	15.0	17.5			

Source: NSSO reports 409(1993-94); 458(1999-2000); 515 (2004-05) and 537(2009-10)

Table 11: Percentage of employees* who were not eligible for social security benefit across states and rural-urban areas

SI no	States	Rural regular workers		Urban regular workers		Rural casual workers		Urban casual workers	
		2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
1	Gujarat	56.9	61.5	56.5	60.0	99.7	99.0	99.6	98.1
2	Haryana	57.0	58.8	55.2	65.9	99.7	97.8	100.0	98.8
3	Maharashtra	50.5	43.9	55.6	52.2	97.1	98.7	97.4	97.8
4	Punjab	63.4	63.3	61.6	58.8	97.9	98.6	98.0	97.8
5	Tamil Nadu	66.1	61.5	56.5	56.0	98.4	96.7	98.2	97.5
	Means of developed states	58.8	58.2	57.1	58.6	98.6	98.2	98.6	98.0
6	Andhra Pradesh	62.8	71.5	58.1	60.8	95.9	97.5	97.2	99.1
7	Karnataka	60.1	63.6	46.1	52.8	99.9	99.7	99.4	99.1
8	Kerala	55.4	57.5	52.2	44.5	95.2	98.0	95.7	98.7
9	West Bengal	53.6	76.1	49.0	45.6	94.4	95.2	95.7	96.3
	Means of moderate states	58.0	67.2	51.4	50.9	96.4	97.6	97.0	98.3
10	Assam	22.6	30.1	31.5	18.4	87.7	94.6	96.7	86.2
11	Bihar	51.4	53.2	38.0	41.0	85.6	92.4	92.1	95.0
12	Madhya Pradesh	58.8	45.8	50.6	44.4	95.8	93.6	93.5	94.5
13	Orissa	45.5	39.9	39.4	35.4	96.3	98.1	87.9	99.3
14	Rajasthan	63.9	63.5	59.6	55.4	99.2	97.2	98.7	98.7
15	Uttar Pradesh	52.7	58.7	48.1	48.2	95.2	99.5	95.0	98.7
	Means of underdeveloped states	49.2	48.5	44.5	40.5	93.3	95.9	94.0	95.4
16	India	56.9	57.3	53.5	52.9	95.5	96.7	96.2	97.4

Source: NSSO reports; 519 (2004-05) and 539(2009-10). Note: employees in the AEGEC and non-agricultural sector

Table 12: *Percentage of employees with non-existence of union/association across states and rural-urban areas*

Sl no	States	Rural Self-employed workers		Urban self-employed workers		Rural regular salaried workers		Urban regular salaried workers		Rural casual workers		Urban casual workers	
		2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
1	Gujarat	90.7	88.4	73.0	81.5	60.2	54.9	60.3	63.4	96.4	91.3	93.2	88.8
2	Haryana	92.7	91.9	79.5	81.7	66.9	64.6	63.6	66.9	85.8	90.6	98.2	92.4
3	Maharashtra	82.6	92.7	67.3	74.0	50.5	54.3	60.6	66.2	87.3	97.1	92.5	93.8
4	Punjab	76.4	80.2	68.0	79.5	60.4	70.9	62.3	63.5	71.9	87.2	85.4	81.0
5	Tamil Nadu	63.8	57.5	55.4	63.6	57.0	54.7	59.6	60.8	64.0	72.3	57.2	69.8
	Means of developed states	81.2	82.1	68.6	76.1	59.0	59.9	61.3	64.2	81.1	87.7	85.3	85.2
6	Andhra Pradesh	78.4	90.0	63.5	71.6	53.9	66.6	60.4	65.2	79.9	90.8	78.3	81.6
7	Karnataka	71.2	78.6	59.7	76.2	51.7	69.9	60.4	68.7	86.8	86.0	80.8	83.7
8	Kerala	40.1	39.9	36.3	47.1	34.8	41.3	34.4	43.7	39.5	44.1	35.7	54.6
9	West Bengal	74.4	80.5	65.4	73.9	53.6	54.5	52.4	48.7	74.9	79.6	77.2	68.0
	Means of moderate states	66.0	72.3	56.2	67.2	48.5	58.1	51.9	56.6	70.3	75.1	68.0	72.0
10	Assam	53.1	80.2	42.0	46.0	18.1	21.4	15.8	14.8	62.5	74.8	51.7	70.1
11	Bihar	85.4	88.3	76.7	83.2	44.4	40.5	45.4	43.7	92.5	82.9	87.1	92.2
12	Madhya Pradesh	82.8	90.2	74.6	79.2	55.8	58.7	58.4	51.2	82.3	90.3	81.5	86.8
13	Orissa	89.9	92.5	73.3	83.9	37.0	36.5	42.3	33.4	84.0	91.3	95.3	93.4
14	Rajasthan	89.0	93.8	81.1	88.0	56.3	60.7	51.8	58.5	93.7	89.3	92.4	94.5
15	Uttar Pradesh	89.7	88.7	78.1	77.2	53.1	60.1	52.7	56.4	91.0	91.6	93.5	95.1
	Means of under-developed states	81.7	89.0	71.0	76.3	44.1	46.3	44.4	43.0	84.3	86.7	83.6	88.7
16	India	80.0	85.1	68.2	74.6	51.9	54.8	56.7	59.5	79.0	86.0	79.6	81.5

Source: same as above

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Appendix

Table A.1: *Dimensions of decent work and corresponding strategic pillars, proposed by ILO,*

S. no	Dimensions (ILO)	Strategic objectives/ pillars
1	Employment opportunities	1+2
2	Adequate earning and productive work	1+3
3	Decent working time	1+3
4	combining work, family and personal life	1+3
5	Work that should be abolished	1+3
6	Stability and security of work	1,2+3
7	Employment opportunity and treatment in employment	1,2+3
8	Safe work environment	1+3
9	Social security	1+3
10	Social dialogue, workers & employers representation	1+4
11	Economic and social context for decent work	

1. Standards and fundamental principles and rights at work; 2. Employment; 3. Social protection; 4. Social dialogue

Source: “Decent work indicators: concept and Definitions” (ILO,2012) table no-A, pg no 16-17.

Table A.2: Annual per capita NSDP at factor cost of major fifteen Indian states overtime in Rs (at constant 1993-94 prices)

	States	1994-95	2000-01	2005-06
1	Gujarat	11535	12489	19043
2	Haryana	11598	13848	18700
3	Maharashtra	12158	14233	18648
4	Punjab	12784	15071	16521
5	Tamil Nadu	9932	12994	16344
6	Andhra Pradesh	7711	10195	13365
7	Karnataka	8097	11854	15249
8	Kerala	8598	10714	14990
9	West Bengal	7094	9796	12174
10	Assam	5737	5943	6885
11	Bihar	4368	4447	4891
12	Madhya Pradesh	7323	6947	8237
13	Orissa	5054	5549	7543
14	Rajasthan	7134	8175	10019
15	Uttar Pradesh	5369	5629	6374

Source: Collected and calculated from Central Statistics office website(mospi.nic.in),accessed on 01.03.2012

Obesity: The Most Prevalent Lifestyle Disease In Indian Children: An Overview

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Abstract

Children of urban India are nowadays suffering from various lifestyle-related diseases, such as obesity, asthma, allergies, anaemia, psychological disorders etc. The prime cause of these diseases is their changed lifestyle. Most of them are being brought up in nuclear families, where they seriously miss the love and affection from the near and dear ones. When both the parents are working, the problem worsens even further. Though unintentional, but the parents themselves make their children to live a lonely, sedentary life, which reduces their play time and increases their screen time significantly. Moreover, the children become habituated to fast foods, readymade foods, instead of taking balanced, healthy, and homemade foods. In this way, the child becomes a patient, physically, as well as mentally. Obesity is one of the most serious issues in this regard, which is affecting the children mostly in developing countries like India. World health organization has declared obesity as one of the most neglected diseases of significant public health importance. The 2002 World Health Report lists overweight as the fifth most serious risk factor for both developed countries and low mortality developing countries. A Hindustan Times article quotes a study published in Paediatric Obesity, as having stated that by 2025, India will have over a staggering 17 million obese children. When these obese children gradually reach their adulthood, they do so with several health problems, some of which even may be fatal. So, we, the urban people, must be highly concerned regarding this condition of our own children, and help them to overcome such problems, so that they can be the future pillars of sustainable development in our society.

Key Words: Developing country, Lifestyle changes, Diseases, Children, Obesity, Sustainable Development

Introduction:

India, being one of the most developing countries in the world, is undergoing through continuous phases of advancement in multiple facets—socioeconomic, cultural, scientific, educational, technological etc. These advancements are undoubtedly good for us, but these are also implying some negative effects in our country people, particularly the children. We know that children are the torch bearers of future. But unfortunately, keeping pace with today's developing society, they are suffering the most. In a comparative scale, children brought up in rural environments are still having some blessings of being there; living in a so called backward, pollution-free ambience, but in urban India, the scenario is truly bad. In most of the metro cities, and even in the semi urban places, children are being affected the most, mainly due to the changes in their family structures, food habits, climatic conditions etc. Today, most of the joint families have been broken into pieces, and when both the parents are working, the children are missing the love and support from their family members, when they need it. Being brought up in a competitive ambience, the children are undergoing through immense loneliness, and even though they want to express their isolating feelings with some near and dear ones, mostly the parents, they are not being able to do so. Inevitably, the child is being involved in watching television, sitting in front of the computer monitor, or playing with smartphones, hours after hours, thus being totally sedentary, while at home. Urban building designs are also reducing their physical activities, as they almost do not get any safe ground to play. Parents themselves are mostly victims of the immense work pressure. This pressure is also compelling them to pamper their children abnormally whenever they get time to be with him or her. The child is not learning to eat healthy, home-cooked food, rather is being habituated to fast foods. Environmental change is also one of the prime causes for their sufferings, as tremendous air pollution, lack of free oxygen due to plant cutting is making many children highly prone to several kinds of respiratory disorders. Unfortunately, these changes in the lifestyle pattern in urban families

are leading to many diseases among the children—physical, as well as mental. In many cases, onset of these diseases is being found at a very early age, with the primary indications. If parents are successful in detecting their child's problem and can go for proper treatments with love and care, then most of these diseases are curable, if not so, at least, management is possible. But, if parents fail to do so, the problem worsens further, and makes that child growing with a progressive increase of his or her sufferings, not only that, the disease becomes completely incurable, when the child reaches to adulthood. Some very common lifestyle-related diseases among the Indian children are obesity, asthma, allergies, anaemia, psychological disorders, each of which is of significant relevance in today's urban society. From this perspective, being urban, also makes us much more responsible to keep our lifestyle as earthy as possible, to maintain our basic values, and, most importantly, to let our children live a disease-free, safe and happy life, not only for our own well being, but also for an overall sustainable development in our country.

Being a learner of biology, in this article, I am highlighting one of the most serious issues with respect to lifestyle-related diseases among the Indian children is discussed, namely, obesity, which, undoubtedly needs utmost concern at this very moment in our country.

What is Obesity ?

Obesity is a condition of excess body fat often associated with a large number of debilitating and life-threatening disorders. Weight exceeding 125% of the median weight for height is obesity. Overweight persons have a body-fat proportion intermediate between normal and obese. The most acceptable definition given by World Health Organization (WHO) and IOTF is in terms of BMI. This is a measure derived from dividing body weight in kilograms by the square of height in meters. Ideal Individuals with a body mass index between 18.5 and 25 are regarded as being of normal weight. Those between 25(85th percentile) and 30(95th percentile) are regarded as

overweight, and obesity is defined as a body mass index equal to or greater than 30.

Obesity in Childhood

Obesity occurs when energy intake exceeds energy expenditure. Genetic factors environmental factors, lifestyle preferences, and cultural factors seem to play major role in the rising prevalence of obesity worldwide. Today, an increasing number of children follow an unhealthy diet that involves consumption of large amounts of processed fast foods like burgers, pizzas, carbonated drinks, tin foods etc. These foods are loaded with calories and poor in nutrients leading to massive weight gain.

Childhood obesity has long-term health effects as obese children are likely less likely to lose weight leading to diseases when they grow up.

Eighty percent of overweight 10-14 year old adolescents are at risk of becoming overweight adults compared to 25% of overweight preschool children (< 5 years old) and 50% of 6-9 year old overweight children. Obesity in childhood and adolescence has been related to an increase in mortality in adulthood on follow up.

Obesity has reached epidemic proportions in the developed part of the world with as many as 30-40% of adults being already obese and the incidence in children and adolescent is rising. World health organization has declared obesity as one of the most neglected diseases of significant public health importance. The 2002 World Health Report lists overweight as the fifth most serious risk factor for both developed countries and low mortality developing countries.

A consistent increase in the prevalence of childhood obesity has been observed since 1971 in developed countries; however, its prevalence is increasing in developing countries as well. The incidence of obesity at all ages is on the rise in the developing countries including India. According to a report from urban South India, 21.4 % of boys and 18.5% of girls aged 13-18 years were overweight or

obese. The prevalence of obesity among School children in India has been reported between 5.74% and 8.82%.

This is a common phenomenon in India. A Hindustan Times article quotes a study published in Paediatric Obesity, as having stated that by 2025, India will have over a staggering 17 million obese children.

Causative Factors

Factors, including age, gender and socio-economic status have been linked to obesity. The transition from a rural to an urban lifestyle is associated with increased levels of obesity which has been linked with dramatic changes in lifestyles (e.g. increased consumption of high energy dense foods and decrease in physical activity).

Although the mechanism of obesity development is not fully understood, it is confirmed that obesity occurs when energy intake exceeds energy expenditure. Childhood obesity can be brought on by a range of factors which often act in combination.

Environmental / Social factors

Changes in environmental and social factors are likely the main explanation for doubling of severe childhood obesity over the last 30 years. Obesity is encouraged by such “obesogenic environmental conditions that promote overeating”. “Passive over consumption” due to changes taking place in food marketing, consumer behavior (e.g., increases in consumption of food and beverages) and targeted marketing of high calorie dense foods with low nutrients. Numerous environmental factors that facilitate or limit physical activities have been identified. Urban housing design and land use influence the physical activity of the residents of that area.

Over the last decades, food has become more affordable to larger numbers of people as the price of food has decreased substantially relative to income and the concept of ‘food’ has changed from a means of nourishment to a marker of lifestyle and a source of pleasure. Frequent consumption of such a diet can hardly be counteracted by

the average child or adult.

Medical/Endocrine factors

Cushing's syndrome (condition in which body contains excess amounts of Cortisol), hyperinsulinism, Hypothyroidism and cranio pharyngioma with hypothalamic involvement are the hormonal causes of obesity.

Psychological factors

A positive correlation between obesity and low self esteem has been established. Researchers discovered that decreased self esteem led to 19% of obese children feeling sad, 48% of them feeling bored, and 21% of them feeling nervous. In comparison, 8% of normal weight children felt sad, 42% of them felt bored, and 12% of them felt nervous. Stress can influence a child's eating habits. Feelings of depression can cause a child to overeat.

How it is Affecting the Children's Present & Future ?

Obesity has unending negative health, social and economic consequences. Mortality and morbidity rates are higher among overweight and obese individuals than lean people. The first problems to occur in obese children are usually emotional or psychological including low self esteem. Childhood obesity however can also lead to diabetes, high blood pressure, heart disease, sleep problems, cancer, liver disease, early puberty or menarche, eating disorders such as anorexia and bulimia, skin infections, asthma and other respiratory problems gout, and even certain types of cancer. Atherosclerosis is documented more frequently among overweight adolescents. Overweight children have 2.4-4.5 times higher risk for developing hypertension and 2.4-8.0 fold rise in prevalence of dyslipidemia as adults aged 27-31 years, compared to children with normal BMI. Frequency of type-2 diabetes is more in overweight and obese adolescents. Obese children have their carotid arteries prematurely aged by as much as thirty years as well as abnormal levels of cholesterol. Obesity during adolescence has been found

to increases mortality rates during adulthood. Obese children often suffer from teasing by their near and dear ones, some are harassed or discriminated against by their own family.

Can it be managed ?

Obesity a growing serious medical condition demands a preventive management. Single most important way to control the onset and development of obesity is by limiting the dietary intake. In June 1997 the WHO, together with the IOTF, held an expert consultation on obesity, that resulted in the publication of an interim report: “Obesity - preventing and managing the global epidemic” (WHO 1998) and the subsequent WHO Technical Report Series 894 The International Obesity Task Force (IOTF) was established in May 1996 to tackle the emerging global epidemic of obesity. The Task Force is composed of world experts in the field of obesity and related diseases from around world, including China, Japan, Chile, Australia, Brazil, the USA, Canada and Europe.

The IOTF initiative on the prevention and management of obesity has four main goals:

1. To increase the awareness among governments, health care professionals and the community that obesity is a serious medical condition and a major health problem with substantial economic costs.
2. To provide evidence and guidance for the development of better prevention and management strategies.
3. To secure the commitment of policy makers to action.
4. To foster the development of national, regional and international structures that will enable and support the implementation of action on overweight and obesity.

The IOTF aims to achieve action on the prevention and management of overweight and obesity and endeavors to create an environment that encourages and supports the development of appropriate public and health policies and programmes for prevention

and management of obesity. Their principal strategy is prevention through changing the environment in such a way to make it less 'obesogenic' to the individual.

Medications

There are no medications currently approved for the treatment of obesity in children. Orlistat and sibutramine may however be helpful in managing moderate obesity in adolescence. Sibutramine is approved for adolescents older than 16. It works by altering the brain's chemistry and decreasing appetite. Orlistat is approved for adolescents older than 12. It works by preventing the absorption of fat in the intestines. Adolescents with BMI of more than 40 with associated complications are considered for bariatric surgery.

Discussion

Prevention of obesity should begin as early as possible. Prevention should start with proper training in terms of breastfeeding, weaning, and diets for toddlers. Children nine years old and younger may have the most to gain from primary obesity prevention, but little is being done in the health care system, the school system or in the community to push the message of obesity prevention. Population-based approaches to the prevention of obesity may prove to be the most effective method for creating a significant change in trends of obesity in children.

All available evidence points to the fact that families must be included in childhood treatment of obesity. Clinicians should obtain a history for the whole family of both active and sedentary behaviors. Obese children and their parents feel socially comfortable by using term "overweight" instead of "obese". It is important for parents to understand, that cause of obesity is often a combination of three factors including genetic causes, overeating and not enough exercise. Impressing the fact on the parents, who controls the food preparation, that diet control and family participation in physical activities will all aid in the treatment of obesity in children.

For creating an overall awareness to fight against obesity, we must remember the following facts:

- Breast feeding is protective against obesity
- Diet restriction is not recommended in very young children.
- Children are to be watched for gain in height rather than reduction in weight.
- Overweight children have an increased risk of being overweight as adults.
- Genetics, behavior, and family environment play significant roles in making the child overweight.
- Childhood obesity increases the risk for certain medical and psychological conditions.
- Overweight & obese children must be encouraged to be involved in high energy physical activities (Yoga, Exercise, Swimming etc.), to minimize low energy activities (by reducing their screen times, like watching televisions, computer monitor, playing mobile games etc.), and develop healthy eating habits.

Thus, it is quite evident that childhood obesity is a serious lifestyle-related disease in our country nowadays. We, the so called educated urban people of the society must show our responsibility and take the efforts, to reduce the percentage of obesity, as far as possible, by nurturing them properly from the very beginning, and teaching them to live a healthy, happy and disease-free life. Only then, the children will be the pillars of sustainable development in our society in future, when they themselves take the responsibilities on their shoulders.

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Ashram Sammilani: Rabindranath Tagore's Ideas and Practice of Student's Self- Governance

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Abstract

Sustainable social development is one of the major of today's educational system. The curriculum mainly of the school level education is designed in such a way that it not only help in the development of the social attributes within the student but at the same ensure the social development. Keeping this in view both theoretical as well as practical aspects are included in daily learning. Student council or students' self governance also has the same aim where the students get ample opportunities to grow up in a potential human resource of the society. Focusing on this importance now a day Students' Self- Governance is consider as an important aspect of education in almost all the levels of education. Rabindranath Tagore one of the eminent educationalists of India who initiated Student Council in form of Ashrama *Sammilani* long back in 1912 in his school Patha-Bhavana established in 1901. *Ashrama Sammilani* has different sections with well defined set of activities which not only facilitate the development of the social attribute within the student but as the same time develop qualities like organizing various cultural events, literary events, meaningful ways for leisure hours and many more.

This paper will focus mainly on three aspects of Ashrama Sammilani; these are- i) Structure of Ashrama Sammilani, ii) Different activities of different Sections (Vibhagas) of it and iii) importance of various activities of different Vibhagas of *Ashrama Sammilani*.

Key Word: *Ashrama Sammilani*

Introduction

Gurudev Rabindranath Tagore was not only a poet, novelist, artist, lyricist but at the same time he was a great social reformer as well as an eminent educationalist. He did his educational experiments at almost all levels of education, especially with school education which are equally relevant in the present era too. Student's Self-governance is an important aspect in present day educational scenario at almost all levels. Ashram Sammilani is one of the important characteristics of Tagore's educational philosophy and practice. In 1912 Ashram Sammilani was constituted in Patha-Bhavana which was later adopted in Siksha-Satra, the poet's other school at Sriniketan; even today this practice is prevalent in both the schools. It is mainly focused on developing the sense of responsibility of students as well as developing a zest towards social activities.

Sustainable development is an important concern in the present day scenario. United Nations in its different conventions has focused on its importance and impact on human civilization. Accordingly Millennium Development Goals had been framed to achieve sustainable development for a better tomorrow for us and for our future generations to live in. United Nations selected education as an important means for achieving these goals. Taking that into consideration education may be defined as a system through which future generations of any nation grow up into sensitive members of society as well as of the environment. Probably, a century before, Tagore realized this and that is why in his educational philosophy and practice he framed the aims of education accordingly.

According to Tagore, the main aim of education is the fullest development of an individual which enables him to act as an active agent of nature as well as society. Focussing on this aim of education, Tagore in 1901 established Ashram Vidyalaya (Patha-Bhavana) and later Visva-Bharati and Siksha-Satra; his laboratories for educational experiments and for giving shape to his dreams. The objectives of Visva-Bharati clearly reflect such desire for global harmony, beyond caste, creed or any religion, which is the fundamental condition for

sustainable human society and civilization. Various methods that Tagore adopted in the curriculum of Visva-Bharati like open yard schooling, formation of Ashram Sammilani, work-centric education, various festivals, etc. clearly carry the sign that the curriculum was designed in such a way that it would help the students to play an active role in maintaining the social and environmental balance by ensuring overall development of personality of the individual student.

The Students' Council or Self-Governance is an important part of the institutional educational system which should be self-regulating and cultivate feeling within the student for various social welfare activities. Taking this into consideration, Students' Self-governance, mainly in schools, is organized in such an order that it must have correspondence with the aims of education. Through participation in this students' council, an effort is made to shape the personality of a student by providing the student a rounded, holistic practical experience of responsibility, duty, participation in the school's administrative affairs, institutional operational skills, respect towards hard work, collective effort, leadership quality, respect towards other members of the team and to their collective effort, empathetic attitude towards social work, etc., which progressively shape the personality of the student as an active, self-dependent and disciplined agent of society. Another important aspect of Student Self-Governance is to develop democratic sensitive citizens for the nation and at the same time it must be mentioned that freedom is important aspect of Student self-governance.

In 1901, Tagore established Ashram-Vidyalyaya or Tapovan Ashram in Santiniketan, founded by his father Maharishi Devendranath Tagore. Rabindranath Tagore is India's first Nobel laureate in Literature, who left school at thirteen years of age. Formal education was always rejected by him since the very beginning of his childhood. Ashram-Vidyalyaya which was later referred to as "*Patha-Bhavana*" was perhaps the answer to that childhood pain. Gurudev's *tapovan* ashram was framed under the roof of the blue sky in the open air away from artificial existing school environments or educational

systems. Joy of mind and soul is the main objective of the educational system while teaching is secondary.

In 1912, Gurudev introduced “Ashram Sammilani” in his Ashram-Vidyalaya, through which he aimed to ensure the complete and harmonious development of students’ personality as responsible, dutiful and democratic members of society as well as the nation. Accordingly, the constitution of Ashram Sammilani was designed by him with a scope to ensure the participation of all students of the educational institution established by him.

An introduction to Ashram Sammilani

Gurudev Rabindranath Tagore always advocated the participation of students in almost all activities of the school. At the same time it is also important to mention that, Tagore believed that every institution has certain social responsibilities. The school does not merely make a student literate; rather it is a centre which extends its services to the surroundings. Keeping all these ideas in view, the constitution and various activities of Ashram-Sammilani was designed based on the principle of working corporation and cooperation at work. It can be said Ashram-Sammilani developed, designed and introduced by Gurudev Tagore in 1912 has some kind of similarity with, or it may be referred as a miniature form of, the Indian Parliamentary System, which was adopted on 26th January 1950.

Structure of Ashrama Sammilani

The constitution of Ashram Sammilani has eleven well defined annexures as well as forty one sections with thirty one sub-sections explaining in specific details the eligibility of members, honorary members’ responsibilities, its structure, advisory committee, cabinet, eight different Vibhagas, activities of these Vibhagas, the procedure for the selection of the representatives of these Vibhagas, and the provision for modification and inclusion or exclusion of any rules, etc. The students of Patha-Bhavana are divided into categories according to their stages of development and standards of class; these are as follows:

Vibhaga	CLASS
Adya Vibhaga	VIII to X
Madhya Vibhaga	V to VII
Sishu Vibhag	I/II to IV

Details of the constitution of ashram sammilani

Annexure no.	Annexure titel	No. of section	Nos.Sub-sections
1	Members of ashram sammilani	1	2 (A,b)
2	Structure of ashram sammilani	2	2 (A,b)
		3	1 (A)
		4	2 (A,b)
		5	1 (A)
3	Advisory committee of ashram sammilani	6	0
		7	1 (A)
4	Pratinidhi sabha (cabinet of ashram sammilani)	8	1 (A)
		9	0
		10	0
		11	0
5	Sadharana sabha (general meeting)	12	0
		13	0
		14	0
		15	1 (A)
6	General election	16	0
		17	0
		18	1 (A)
		19	0
		20	3 (A,b,c)
		21	1 (A)
		22	0
		23	2 (A,b)
		24	0
7	Amendment / revision of rules	25	0
		26	1 (A)
		27	0
8	Accounts	28	1 (A)
		29	0
		30	3 (A,b,c)
		31	0

9	Chhatra sanchalak / proctor	32	2 (A,b)
		33	0
		34	0
		35	0
10	Principal and sammilani (council)	36	4 (A,b,c,d)
		37	0
11	Bichar vibhaga/ disciplinary committee	38	2 (A,b)
		39	0
		40	0
		41	0

Source: Constitution of Ashram Sammilani Curtsey: Principal, Patha-Bhavana

Members and structure of Ashram Sammilani

According to the Constitution of Ashram Sammilani, every existing student of Patha-Bhavana will be a member of Ashram Sammilani and all the Adhyapaks and Adhyapikas will be the honorary members of this Sammilani. There are different Vibhagas to execute different types of activities. These Vibhagas are : Sahitya Vibhaga (Literary Section), Seva Vibhaga (Social Service Section), Shastha Vibhaga (Health Section), Aharjaya Vibhaga (Food Section), Krira Vibhaga (Sports Section), Bichar Vibhaga (Disciplinary Committee), Sakha Sanga (Section for organizing leisure hour activities) and Paribesh Vibhaga (Environment Section). The Pratinidhi Sabha or the cabinet of Ashram Sammilani is entrusted with introducing a new vibhaga if necessary. In each vibhaga there will be a representative, who will be selected or elected by all general members of Ashram Sammilani for a period of one year (January to December of each year). Only in case of Aharjya Vibhaga, it is mandatory that the representative will be among the residential students. Each student representative (*Pratinidhi*) of each vibhaga will nominate an assistant (*sahakari*) for that particular vibhaga. In each vibhaga there will be one male representative or assistant and one female representative or sahakari. But in case of Bichar-Vibhaga only the nomenclature is different for the rest of the Vibhaga. Pratinidhi of this vibhaga generally belong to the Adya Vibhaga. Within one day of the

declaration of the election results the representatives of each vibhaga will nominate the sahakari of that concern Vibhaga and intimate it to the Principal through the last chhatra-sanchalak.

Bichar Vibhaga or the Disciplinary Committee, of the students, by the student, and for the students, is one of the most important features of Ashram Sammilani. Gurudev in his educational ideas always advocated free discipline. In his school he introduced the practice of involvement of the students in the judgement of the serious allegations against any selected, elected or any general member of Ashram Sammilani. For this purpose Bichar Vibhaga is constituted with two boys and two girls among the residential students as well as with two boys and two girls among the day scholar students of the institution. There will be a total of eight selected or elected student representatives in this vibhaga. It was probably constituted by Gurudev with the notion of introducing students to the judicial system and develop respect of the students towards the judicial system. Along with this it also helps to develop the ability to take rational, impartial and logical decision taking ability among students. On the other hand, another possibility might be that a students who is accused for any reason, can confess more easily to a person who is more or less equal to his/her age. From this we can realize how advanced the thinking of Gurudev was.

In Ashram Sammilani, there is an Advisory Committee and the *Chhatra-sanchalak* or the *Chhatra-sanchalika* will be the chief advisor of Ashram Sammilani. In each vibhaga there will be a teacher-in-charge/ *Bharprapto Adhyapak or Adhyapika*, to look after and advise on the activities of the concern vibhaga; in the case of Sahitya Vibhaga, in Adya, Madhya and Sishu vibhaga there will be three separate *Bharprapto Adhyapaks or Adhyapikas* to advise on various activities of the concerned vibhaga.

Pratinidhi Sabha, which is a selected or elected body, is entrusted with organizing and/or executing all the activities of Ashrama Sammilani. The members of this body are : a) General Secretary

(Sadharana Sampadak and Sadharana Sampadika), b) Samapadak/Sampadika of different vibhagas, c) Sahakari sampadak or sampadika of each vibhaga, d) Principal of the Institution, e) Chhatra-sanchalak, f) Vice-Principals (Two), g) Teacher-in Charge of each Vibhaga; and, h) one warden from each boys' as well as from girls' hostels. A general meeting of this committee can be called with a notification of at least two days which is subjected to the permission of the Principal or the Chhatra-sanchalak. But in case of an emergency this meeting can be called with a notification off at least an hour. Decision on any issue will be legitimised with the presence of at least two third of the members of Pratinidhi Sabha.

General Body Meeting or the Sadharana Sabha of Ashram Sammilani will take place at least three times in a year, followed by a meeting of Pratinidhi Sabha. This Sadharana Sabha requires a three days' period for notification in general while in emergency at least one day's notification. Generally, prior to Summer Vacation, Autumnal Vacation and in December before the General Election, there must be a general assembly where in-front of all the students, teachers, members of Ashrama Sammilani, and in presence of one External Member, the elected representative of each Vibhaga has to place the details of activities with its full account which needs to be accepted by all. All the members are free to raise any question, objection or suggestions for alterations about any part of any report. This clearly proved how much Gurudev was concerned with developing the democratic feeling within students with a high sense of responsibility. The concept of Ashrama Sammilani is not only a system to engage in various activities, but at the same time it can be referred as an educational subsystem which equally played an important role in the overall development of students.

Election Rules of Ashram Sammilani

Election is a regular event of Ashrama Sammilani which is generally held in December of each year, where along with the Sadharana Sampadkas and Sampadikas, all other members of different vibhagas

are elected only by the general members of the Ashrama Sammilani through secret ballot. A list of eligible, competent representatives for different vibhagas of Ashrama Sammilani will be recommended to the Adhayaksha/Principal of Patha-Bhavana by the outgoing members of Ashrama Sammilani through the Chsatra -Sanchalaka or Proctor. This list will be displayed on the notice board of Patha-Bhavana for the information of all concerned. Any student whose name is recommended to the Principal for the forth coming Ashrama Sammilani can withdraw his/her candidature with the prior permission of the Principal within a stipulated period of time. Apart from the list displayed, any general member of the second senior-most class who has an enrolment period of two years in Patha-Bhavana, can file nomination for any desired post of his own in Ashrama Sammilani, within two working days after the display of the list. After five working days of this event the general election will take place. If the election takes place, after the counting of the ballots only the Principal jointly with outgoing Chhatara Sanchalaka can publish the list of the elected persons. In case of permanent absence of any member of Ashrama Sammilani, the members in consultation with Chhatra Sanchalaka and Principal can unanimously co-opt other members. The elected candidates of Ashrama Sammilani, unanimously and by the next day, will submit a list to the Principal consisting of three names of teachers having a continuous service period of at least two years in Patha-Bhavana as Chhatra Sanchalaka or as the Chief Advisor, for that term and the Principal, jointly in consultation with the two vice-principals and with three other teachers, will select the Chhatra-Sanchalaka from the list and notify it for the information of all concerned.

It is obvious to say that this procedure of election of the members of Ashrama Sammilani is similar to the election of any legislative body under Indian Constitution. Gurudev always believed in Students' Self-governance, absolute freedom and on self-dependency of the student which will help him to be a responsible, balanced member of society as well as the nation and accordingly he introduced Ashrama Sammilani where students can file his or her nomination for any post

in Ashrama Sammilani, or can withdraw his/her name even after being recommended and can even recommend names of teachers for the panel of Chhatra- Sanchalakas who will be the Chief Advisor/s to Ashrama Sammilani; that means importance has been given to the view of students in mapping and organizing various activities in the school.

Provision of Change in Constitution of Ashram Sammilani

In any democratic nation there is provision for revision, modification, alteration, addition or omission of any constitutional provisions for the general benefit of the mass and keeping in view the demand of the times. A Clear-sighted Gurudev in 1912, through his Ashram Sammilani, kept the provision for revisions or for any alterations as we are used to in our national level since 26th January 1950. As in Parliament, the view of majority is honoured for any kind of modification in the Constitution; in Ashram Sammilani too the same trend is followed from the very beginning of its formation i.e.in 1912.

Accounts Rule of Ashram Sammilani

Ashram Sammilani in its constitution has well defined set of rules related to its accounts. Funds collected from members of Ashram Sammilani, that is students of Patha-Bhavana, is the only source of income. Funds raised from “*Dansanghara*” will be used exclusively for the purpose of “*Seva Vhibhag*” only. There will be a joint bank account of Ashram Sammilani in the name of the Principal, Chhatra-sanchalaka and Vice-Principal where the raised fund of Ashram Sammilani will be deposited and all transactions will be made through this account. The entire responsibility of this account will be on the Chhatra-sanchalaka. In Pratinidhi Sabha the annual balance sheet will be submitted for approval. The Principal, along with two students of the highest class, two Aphasayaks, who are not members of Ashram Sammilani, will form a committee to audit the accounts of Ashram Sammilani. At the end of each term of Ashram Sammilani the former committee will hand- over everything to the new committee.

Principal and Ashram Sammilani

The Principal, by virtue of his/her chair, will be the President of Ashram Sammilani and will have some special powers which he/she can execute in consultation with the advisory board constituted with at least three senior adhyapaks of Patha-Bhavana. The Principal can necessarily instruct Ashram Sammilani, which every member will have to follow in any emergency. At the same time in any emergency the Principal being the president of Ashram Sammilani can withhold, or over rule any activity or decision taken by the cabinet; but this must be done in consultation with the advisory committee constituted with at least three senior adhyapaks of Patha-Bhavana. In Indian Constitution, there is a provision that in any emergency situation of the nation Presidential Rule (Article 356) can be implemented for the time being. That means it can be mentioned that, well before the structure of Indian Constitution was unveiled, Gurudev in his school, made a conscious effort to orient the students with a provision of a similar kind of democracy through Ashram Sammilani. It clearly establishes that what Gurudev planned about a century ago is still relevant and constructive in grooming the future generations of our nation or any nation.

Bichar Sabha

The main aim of Bichar Sabha is not in defining punishments for a student found guilty; but rather with an empathetic attitude, the members of the Bichar Vibhaga will try to find the root of the problem, try to solve it and keep a view that any decision taken by the Bichar-Sabha should not cause any harm to the accused student. The Chhatra-sanchalak/ Chhatra-sanchalika will be directly in charge of this Vibhaga. The Chhatra-sanchalak can call for Bichar Sabha only in consultation with the Principal after receiving a plea for it from the majority of the members of Bichar Vibhag. As it is an important Vibhaga and deals with the discipline of the Vidyalaya due to this reason any student can be invited to this Vibhaga at any time if necessary. If any Pratinidhi of Ashrama Sammilani is accused

and found guilty of any unwanted or illegal activities, which defame the honour of the institution, then that Pratinidhi will lose his/her post, and this rule is equally applicable to all the members of Bichar Vibhaga also. One thing must be mentioned here that all decisions of Bichar Vibhaga is a unanimous decision of all members present at that particular meeting; in case of any argument in take arriving at a decision, the opinion of the principal will be considered as final.

The Judicial System of any nation plays probably a very important role in democracy as the judicial system is considered as the ultimate interpreter of the constitution and an agency from where justice will be rendered to all. Keeping this in view, respect should be shown to this system by every citizen and at the same everyone should be aware of its way of functioning. Bichar Vibhag in Ashrama Sammilani was possibly designed by Gurudev with such ideas in mind that the students of this ashrama will be aware of and respect this important system of the democratic nation.

Responsibilities of Pratinidhis in Ashram Sammilani

In any government, each ministry has its own role to play in the development process and at the same in the cabinet there is a person who looks into the overall development process and is concerned with each issue. Equally in Ashrama Sammilani there are different sections with a sampadak or a sampadika with a defined set of activities and there is a sadharana sampadak or sampadika to look in to the overall process and activities of Ashrama Sammilani.

Sadharana Sampadak/ Sampadika of Ashram Sammilani

In the constitution of the Ashrama Sammilani the position of the Sadharana Sampadak/ Sampadika is of huge importance. Different activities of Ashrama Sammilani will mainly be taken care of by the Sadharana Sampadak/ Sampadika. Sadharana Sampadak/ Sampadika is the main associate of the Principal and the Chhatra-sanchalak in any student related matter and all the issues of Ashrama Sammilani.

Responsibility of the Pratinidhi of Sahitya Vibhaga

Sahitya Sabha is one of the most unique educative ideas of Gurudev. Students of Patha-Bhavana organize this Sabha once in every week, preferably Tuesday evenings. In this Sabha, the students of this institution read out or present their own writings, poems, dance, songs and so on in front of an audience and there are provisions for the general audience to criticize on any writing with the help of logical arguments immediately. From childhood this kind of practise accelerate the confidence of the student to be more creative in writing, logical in thinking and brave and free to present their view in presence of an audience; at the same time grow to be tolerant of criticisms. This helps to develop the personality of the student more strongly and at the same time helps the student to plan their leisure hour meaningfully.

“*Amader Lekha*” is the magazine written and edited by the students themselves. Here, in this magazine students of all standards/classes write poems, essays, stories and other writings. Such kind of academic activities from childhood give a different direction to an individual from the early days of his life. It must be said that such activities help students to be culturally more resourceful. Management of free hours is one of the major concerned in the present time as various media spread their realm to a significant extent which reduces the scope of students to increase their creativity and at the same time misuse of free hours may extend social evils. But it must be said that one can make the of best uses of his off time by participating in Sahitya Sabha or by publishing writings in “*Amader Lekha*” or by participating in such kinds of activities.

All the above responsibilities are mainly executed by the Pratinidhi of Sahitya Vibhaga. The major responsibility of the Sahitya Vibhaga is to organize the Sahitya Sabha of Addya Bibhaga, Madhya Bibhaga and Sishu Bibhaga and to take care of the regular publication Patha-Bhavanas' magazine. In this course the Pratinidhi of Sahitya Sabha will be in liaison with the Sampadak and with the editor of the Patha-Bhavana magazine too.

Responsibility of the Pratinidhi of Sasthya Vibhaga

The representative of this vibhaga will look after the health and hygiene conditions of students of Patha-Bhavana. These pratinidhis will keep a health record of all students. Along with this they will arrange for first-aid in school. In any emergency they will take necessary actions in consultation with the teacher-in-charge. Along with this, the Pratinidhi of Sasthya Vibhaga will also arrange various awareness camps among students. Probably this vibhaga was introduced by Gurudev with the vision that by participating in the various activities of this vibhaga students would be able to take a leading role in the overall health condition of the area where he resides, which may help to improve local health conditions and prevent various causes of epidemics.

Responsibility of the Pratinidhi of Paribesh Vibhaga:

Cleanliness and clean environment are probably the most essential factors for a healthy life and this practice should be inculcated within the students from the very beginning of their life. Now Swachh Bharat Abhiyan is on full swing, where effort has been made to create awareness among the masses about cleanliness, and to develop a zest to clean local environments. Paribesh Vibhaga, from its very beginning, aimed to develop similar kind of attitude among students the most important fact in this regard is that in Paribesh Vibhaga all such planning are done entirely by students themselves. They have to clean the Ashrama area, Hostels, Office buildings and similar such surroundings on their own. Along with these, students also plan for the beautification of the entire ashrama area by planting flowering plants in and around the campus. The Pratinidhis of this Vibhaga are also tasked with drawing attention of the School administration towards the need of building maintenance, repair of furniture and so on. Frequently, environmental awareness camps, debates on various topics of environment and similar socio-ecological awareness events are also organized by this Vibhaga. In conclusion, it can be said that to maintain physical and psychological ambiance this Vibhaga possibly plays a very important role in the

school's extra curriculum activities. Nowadays, formally in school curriculum various Educational Boards or Councils feels the necessity to introduce Environmental Education as a regular subject but at the grassroots level perhaps it gets less importance. Yet in 1912 naturalist Gurudev introduced Paribesh Vibhaga which clearly reflects his concerns on environmental sustainability and made provisions in his school for students to development attachment with the environment by providing full freedom to maintain the environment.

Responsibility of the Pratinidhi of Krira Vibhaga

Gurudev believed and several times mentioned in his writings, that “*Sports has a great importance in education*” (Mukherjee. P.1938,). He also believed in the theory of “play way method” of learning. Games and sports are the best way to ensure the physical, mental and social development of a child. Only in the playground the child can express himself/herself in the best possible way. Simultaneously, games and sports develop good habits of spending leisure hours and refresh the youth to perform various activities energetically. Krira Vibhaga of Ashram Sammilani deals with the arrangements of all kinds of Games and Sports related issues at Patha-Bhavana. The Pratinidhis of this Vibhaga arrange various kinds of sports and games in consultation with the Sports Board of Visva-Bharati. Taking regular attendance of students on play grounds, dividing the students in various groups and houses, maintaining the discipline on the play-fields, organizing inter house tournaments, indoor games, friendly matches with other institutions, annual sports and more similar activities are mainly conducted by the pratinidhis of krira Vibhaga.

Responsibility of the Pratinidhi of Aharjya Vibhaga

Patha-Bhavana was established in 1901 as a Brambhacharya Ashram and it is essential for an Ashrama that all the disciples of the ashram will be boarders. The same spirit was there in Patha-Bhavana from the time of its inception. In this structure it is a matter of importance to provide balanced food with proper hygiene to all students. Gurudev in the structure of the Ashram Sammilani

kept provision for the food committee, which was tasked with the responsibility to look after the food management system of the entire school. Later there was a change in the nature of Patha-Bhavana, where both day-scholars and residential students were allowed to study in this institution. Keeping this in view Ashrama Sammilani's constitution clearly mentions that this is the only Vibhaga where the pratinidhis will be selected or elected among the residential students only. Major responsibilities of this Vibhaga are to take care of the preparation of healthy, nutritious diet, to maintain the quality of food, to monitor the hygiene of the kitchen, its surroundings, dining halls, proper cleaning of utensils, check for misuse of food and to ask for various needs of the kitchen. Along with these, this Vibhaga also organizes the annual picnic of the school.

Responsibility of the Pratinidhi of Seva Vibhaga

One of the major aims of education is to develop a positive attitude within the students towards various social services and to social reconstruction. Gurudev laid huge importance on the development of social characteristic and positive attitude of students towards society. It is equally reflected in the blueprint of the Ashram Sammilani also where students get a hands-on experience in this. Seva Vibhaga was constituted by Tagore in Ashram Sammilani for this purpose. The representatives of this Vibhaga organizes "Daan Sangraha" where students in different groups approach the residents of the ashrama for unused dresses and collect funds. These collected materials will be distributed among the needy of the surrounding rural areas and the raised fund will be utilized for purchasing books, medicine and other necessary things for the poverty stricken, or for building of toilets or library in remote schools. Many a time this Vibhaga in consultation with the bharpapra adhyapaka and adhyaksha arrange for one time special fund for those meritorious students who are needy in various senses. Another important thing that needs to be mentioned in this context is that the fund or profit collected from "Ananda Bazar" a fair organized by the students of Visva-Bharati on the day of "Mahalaya" with products prepared by themselves, is also utilized for the same

purpose by Seva Vibhaga .

Along with such services, organizing “Gram Paridarshana” or visit to a village, is an integral part of this Vibhaga. In Gram Paridarshana the students will visit the villages of the near by areas physically and will gather knowledge and experiences related to rural lives which ultimately helps us developing an attitude within them towards development of rural areas. Gurudev believed that the main key of development of India lies in the development of rural areas of the nation. His establishment of Sriniketan is devoted to the same purpose. So, it is very important to note that through the activities of Seva Vibhaga, Gurudev made a significant effort to shape the character of the student as an active participant in nation building.

Responsibility of the Pratinidhi of Sakha Sangha

Sakha Sangha is another important Vibhaga of Ashrama Sammilani. Sakha Sangha may be used as a synonym for “Club” or a section that deals with healthy recreation of students around the year. Along with this, Sakha Sangha in Patha-Bhavana has a library which is maintained by the pratinidhis of this Vibhaga. Making rules for using this library, issuing books, purchasing new books are done by the students themselves. At the same time, organizing debates, singing competitions, “Bichitra Sajh” (go as you like), story-telling, experience sharing by eminent personalities, quiz competitions are also organized by this Vibhaga.

This practice has a unique approach. Gurudev always believed that true education will also help the rural parts of the country to grow equally. Students, after attending education, will go to the rural areas and will help develop the library system and library network for such rural areas, organize various cultural events for various age groups that will help the entire village or area to manage their leisure hours in a meaningful way and the initiative will be taken by the students of Tagore's educational institutions.

Conclusion

The educational system of Visva-Bharati is unique in many senses. Ashrama Sammilani is one of the most important educational ideas of Tagore for Students' Self-Governance. Through the diverse activities of Ashrama Sammilani Gurudev made an earnest effort to shape education beyond the boundaries of formal education. Through these activities students can nurture a positive attitude towards social activities, leadership qualities, democratic sense, collective effort, empathetic attitude to hard work, good habits to spend leisure hours, organizing various activities, sense of responsibility and many more such related traits which ultimately shape the personality of the student in such a way that she/he will become a balanced person of society. Along with this, by organizing and participating in various activities students of this institution get a chance to work with the school administration and slowly they also gather experience related to administration. Ashrama Sammilani is such a powerful system that students directly as well as indirectly are being benefited and this help them to develop in such a way that they can be more responsible citizens of the nation as well as the world by the all-round development of their personality. Thus it helps in the best way to attain the ultimate goals of education. Through formation of Ashram Sammilani, more than a century ago Gurudev Rabindranath Tagore developed such an ideal model of students' self governance which is very much relevant even in the present scenario for any educational board or nation and will be pertinent probably for the coming centuries.

N.B.: This article is based on the constitution followed prior to 2009. In 2009 Uttar Siksha Sadana (Higher Secondary Section) merged with Patha-Bhavana. Accordingly there is a modification in the constitution of Ashrama Sammilani. In place of one Sampadak or Sampadika and one Sahakari from class 10only, there are now two Sampadaks or Sampadikas (one each from class 10 and 12) and two Sahakaris from (one each from class 10 and 12).

Acknowledgement

I sincerely express my deep sense of gratitude to Smt. Bodhirupa Sinha, Respected Principal Patha-Bhavana, Visva-Bharati and Dr.Sudev Pratim Basu, Associate Professor, Department of English, Bhasha Bhavana, Visva-Bharati, for their valuable and constructive suggestions.

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