Education: capacity building for human development

Majumder, Rajarshi and Ray, Jhilam

Department of Economics, University of Burdwan

30 November 2015

DRAFT: NOT TO BE QUOTED

Education: Capacity Building for Human Development

Rajarshi Majumder
&
Jhilam Ray

Department of Economics
University of Burdwan
West Bengal – 713104
INDIA

contact: meriju@rediffmail.com

This is prepared as part of the Bardhaman District Human Development Report, commissioned and financed by Department of Development and Planning, Government of West Bengal

Human Development and Capacity Building: Education

Education is one of the key ingredients of Human Development as envisaged by social scientists, reiterated by UNDP, and accepted by National and State Governments. More specifically, greater access to knowledge in its various dimensions is critical to building of human capabilities, enhancement of freedom, and empowerment of people. The Millennium Development Goals (MDG) adopted and ratified by India also speaks of Universalisation of Elementary Education and Promoting gender equality in Education. Therefore, we must look at the issues of Educational Infrastructure, Achievements, Shortcomings, and Policy suggestions as a part of this HDR.

5.1 PROFILE OF THE EDUCATIONAL SYSTEM IN THE DISTRICT[1]

This section describes the system and pattern of education followed in the region, types of schools/colleges and other institutions present, the examination systems in vogue etc, forming the background and historical setting.

The education system in the district has an ancient origin. Written evidences suggest that as early as in 1800 AD there were informal '*Chatuspathis'* or *'Maktabs'* in almost all the villages of the district where reading, writing and numerical skills were imparted.[2] The teachers were local *'Pandits'* and *'Moulabis'* who did not get any cash salary but received commodities and foodgrains in return for their services. The first 'Vernacular School' in the district was established by Captain Stuart in 1816 where preliminary geography, history, and astronomy were taught. By 1830, as many as 72 formal schools were established and by 1838 this set-up increased to 629 Elementary Schools, 190 Sanskrit *Tols,* 93 Persian schools, and 8 Arabic schools in the district. Significantly, by this time there were 4 Girls' schools in the district run by Missionaries. Thereafter, the education system in the district expanded both through State support and through private enterprise of various good Samaritans and erstwhile *Zamindars.*

[1] The format, structure, amalytical tools and introductory parts of this chapter are taken from the Education chapter of DHDR-Bardhaman first edition, written by the same author and published by Development and Planning Department, Government of West Bengal. This has been done to maintain comparability between the previous and current versions.

[2] *Shikshar ChalChitra* – Nila Kar, in Bardhaman Charcha, Abhijan Prakashani.

At present, the education system in Bardhaman comprises of Primary Schools (classes I to IV), Junior High Schools (classes V to VIII), High/Secondary Schools (classes IX and X), Higher Secondary schools (classes XI and XII), General, Vocational & Professional Degree colleges, and a University. While the Primary schools are under the District Primary School Council, the remaining schools are under the District Inspector of Schools (SE). In addition, the Sarva Shiksha Mission is in full swing in the district. Apart from conventional teaching, there are several vocational training centres in the district including Polytechnics, Mining Training Institute, Junior Training Schools, and Industrial Training Institutes.

In this chapter, we focus on the educational infrastructure presently available in the district, educational achievements of the people, its disparity across regions and social groups, the various programmes implemented in recent times to uplift Capacity Building of the people and the future Roadmap. Unlike the UNDP method, we concentrate not only on Literacy and Gross Enrolment, but also on the Retention of children in school, i.e. we take into account the Drop-Out syndrome, frequent in developing countries. The Educational Development Index (EDI) presented here is therefore more comprehensive and revealing than the UNDP index on Education.

Let us now start our detailed presentation of the Educational situation of the district. We start by reporting the condition of Educational Infrastructure Availability.

5.2 EDUCATIONAL INFRASTRUCTURE AVAILABLE IN THE DISTRICT

People's access to education depends crucially on the Educational Infrastructure in place. The number of schools & other institutions (including Sanskrit *Tol*-s, *Madarsas* etc.), their intake capacity, their spatial spread and distance from habitats, teacher strength, amenities available in the institutions, etc. are significant elements through which affordable education can be reached to the people. Therefore, we must explore the status of the district and its sub-regions in this regard.

5.2.1 Availability of Educational Institutions

The district is quite developed in terms of availability of educational institutions. There are close to Seven thousand Primary Schools and more than Twelve hundred Junior High Schools run by the government sector. In addition, private bodies run about 500 Primary Schools and 50 High Schools. There are close to 50 General degree Colleges and 70 Professional degree colleges in the district. In addition, there are 13 Teachers Training Institutes and 1 District Institute of Education & Training. Relative to population also, availability figures are quite satisfactory (Table 5.1). Region-wise, availability is high in Ausgram-I & II, Galsi-II, Kanksa, Ketugram, Khandaghosh, Monteswar, Raina-I and Raina-

II; and quite sparse in Andal, Memari-I, Pandabeswar, Raniganj (Table 5.1). Availability of primary schools in the municipal areas is also not in proportion to their population. However, it must be pointed out that in these areas majority of households now prefer to send their children to private schools many of which are not recognised nor recorded in official statistics.

Table 5.1

Availability of Educational Infrastructure – Educational Institutions per 1000 pop - 2014

Block / ULB	Primary Schools	Middle Schools	Sec/HS Schools	Block / ULB	Primary Schools	Middle Schools	Sec/HS Schools
Andal	0.69	0.13	0.09	Mongalkote	0.98	0.13	0.11
Ausgram-I	1.35	0.17	0.13	Monteswar	1.36	0.18	0.16
Ausgram-II	1.38	0.23	0.14	Pandabeswar	0.78	0.08	0.04
Barabani	1.15	0.15	0.07	Purbasthali-I	1.03	0.14	0.09
Bhatar	1.06	0.14	0.13	Purbasthali-II	0.93	0.15	0.09
Burdwan-I	0.94	0.14	0.10	Raina-I	1.09	0.17	0.13
Burdwan-II	0.92	0.22	0.13	Raina-II	1.33	0.23	0.19
Durgapur-Faridpur	1.03	0.11	0.09	Raniganj	0.79	0.11	0.06
Galsi-I	0.95	0.15	0.12	Salanpur	0.93	0.11	0.06
Galsi-II	1.13	0.17	0.12	Asansol (M)	0.63	0.10	0.09
Jamalpur	0.99	0.17	0.14	Burdwan (M)	0.52	0.11	0.11
Jamuria	0.97	0.14	0.09	Dainhat (M)	1.07	0.16	0.12
Kalna-I	0.89	0.12	0.10	Durgapur (M)	0.35	0.06	0.06
Kalna-II	1.05	0.15	0.11	Gushkara (M)	0.76	0.14	0.14
Kanksa	1.29	0.17	0.11	Jamuria (M)	0.62	0.10	0.08
Katwa-I	0.85	0.11	0.09	Kalna (M)	0.85	0.14	0.14
Katwa-II	0.93	0.15	0.11	Katwa (M)	0.71	0.10	0.10
Ketugram-I	1.17	0.18	0.15	Kulti (M)	0.56	0.07	0.06
Ketugram-II	1.23	0.19	0.11	Memari (M)	0.60	0.10	0.10
Khandoghosh	1.20	0.18	0.12	Raniganj (M)	0.63	0.09	0.08
Memari-I	0.86	0.14	0.09				
Memari-II	1.10	0.19	0.15	**District**	**0.89**	**0.13**	**0.10**

Source: Author's calculation based on data obtained from Office of the Sarva Shikhsa Mission, Bardhaman; District Information on School Education – 2013-14; Census of India, 2011.

Apart from gross availability, accessibility is also an important parameter. While urban centres contain educational institutions within their periphery, often rural areas do not, and substantial number rural of children drop out from the learning process because of distance of schools and colleges. This area needs proper attention during planning process. If we look at the accessibility of elementary schools, we find that in the district there is roughly one primary school in every square km area and one Upper Primary school in every 7 square km area. Accessibility of primary schools is relatively poor in Bhatar, Galsi, Mongolkote, and Raina-I. These have been used to develop the Access Index, discussed later.

5.2.2 Infrastructure in the Schools

In addition to availability and accessibility of institutions, one must also look at the infrastructure available in those schools – both physical (Pucca Building, Drinking Water, Sanitation Facilities, Blackboard in Classrooms, Average Floor Area per student, etc) and human (Teacher Strength). It is observed that 99 per cent of the Primary Schools in the

district have Pucca Building. Close to 99 per cent of schools have Sanitation facilities; All Primary and High schools have Drinking Water, and all classrooms have Blackboards. The condition is far better compared to National and State figures. However, Girls' Toilet is present only in 90 per cent of primary. Based on the availability of the facilities of Drinking Water, Toilet, Pucca Building and Electricity in Primary and Middle schools, we have developed a Facilities Index for the district & each of the sub-regions (Table 5.2).[3] The best regions in terms of this index have been the municipal areas and the blocks of Andal, Ausgram-I, Jamuria, Ketugram-II, Pandabeswar, and Raniganj. Facilities are relatively inadequate in Jamalpur, Khandoghosh, Katwa-II, Memari-II, and Raina-I & II.

Table 5.2

Educational Infrastructural Indices - 2014

Blocks/ ULB	Facility Index	Teacher Index	Blocks/ ULB	Facility Index	Teacher Index
Andal	0.88	0.41	Mongalkote	0.70	0.42
Ausgram-I	0.73	0.36	Monteswar	0.48	0.41
Ausgram-II	0.57	0.36	Pandabeswar	0.96	0.00
Barabani	0.60	0.22	Purbasthali-I	0.66	0.49
Bhatar	0.70	0.48	Purbasthali-II	0.53	0.52
Burdwan-I	0.63	0.40	Raina-I	0.43	0.60
Burdwan-II	0.57	0.35	Raina-II	0.34	0.54
Durgapur	0.52	0.55	Raniganj	0.72	0.38
Galsi-I	0.69	0.36	Salanpur	0.54	0.05
Galsi-II	0.63	0.38	Asansol (M)	0.00	0.29
Jamalpur	0.47	0.40	Burdwan (M)	0.52	0.71
Jamuria	0.70	0.21	Dainhat (M)	1.00	0.68
Kalna-I	0.56	0.57	Durgapur (M)	0.88	0.46
Kalna-II	0.76	0.43	Gushkara (M)	0.87	0.61
Kanksa	0.81	0.38	Jamuria (M)	0.62	0.44
Katwa-I	0.77	0.47	Kalna (M)	0.52	1.00
Katwa-II	0.43	0.44	Katwa (M)	0.77	0.76
Ketugram-I	0.62	0.32	Kulti (M)	0.97	0.42
Ketugram-II	0.87	0.40	Memari (M)	0.37	0.57
Khandoghosh	0.42	0.33	Raniganj (M)	0.32	0.52
Memari-I	0.53	0.43			
Memari-II	0.50	0.49	**District Total**	**0.60**	**0.40**

Source: Same as Table 5.1

Note: Indices prepared according to UNDP method of Relative Gap

If we now look at the human interface, we find that Teacher availability per school (TPS) is close to 4 in Primary schools and 9 in Upper Primary schools. This is also higher than the National and State average. Among the regions, situation is comfortable in the municipal areas, and also in Burdwan-II, Andal, Pandabeswar, Purbasthali-II; wheras the situation is poor in Galsi-I & II, Barabani, Ausgram-II, Moteswar, and Jamuria.

Teacher Student Ratios (TSR - Teachers per 100 students) in the district are also higher than national and state averages – being 3.9 in Primary and 2.6 in Upper Primary schools. However, this statistics must be viewed with caution since a high TSR may also be caused by

[3] The Facilities Index assigns twice weightage to facilities in Primary schools compared to Middle schools.

low enrolment. Therefore TPS and TSR must be analysed in conjunction with each other. Combining the TPS and TSR, a Teacher Availability Index is prepared (Table 5.2). It is observed that the situation is better than district average in Faridpur-Durgapur, Kalna-I, Purbasthali-II, Rain-I & II while the situation is relatively poor in the western parts of the district in Barabani, Jamuria, Pandabeswar, and Salanpur.

Table 5.3

Educational Infrastructural Indices - 2014

Blocks/ ULB	Access Index	Facility Index	Teacher Index	EII	Blocks/ ULB	Access Index	Facility Index	Teacher Index	EII
Andal	0.56	0.88	0.41	0.62	Mongalkote	0.08	0.70	0.42	0.40
Ausgram-I	0.60	0.73	0.36	0.56	Monteswar	0.67	0.48	0.41	0.52
Ausgram-II	0.33	0.57	0.36	0.42	Pandabeswar	0.46	0.96	0.00	0.47
Barabani	0.43	0.60	0.22	0.42	Purbasthali-I	0.74	0.66	0.49	0.63
Bhatar	0.12	0.70	0.48	0.43	Purbasthali-II	0.33	0.53	0.52	0.46
Burdwan-I	0.14	0.63	0.40	0.39	Raina-I	0.22	0.43	0.60	0.42
Burdwan-II	0.17	0.57	0.35	0.36	Raina-II	0.57	0.34	0.54	0.48
Durgapur	0.20	0.52	0.55	0.42	Raniganj	1.00	0.72	0.38	0.70
Galsi-I	0.00	0.69	0.36	0.35	Salanpur	0.62	0.54	0.05	0.41
Galsi-II	0.13	0.63	0.38	0.38	Asansol (M)	1.00	0.00	0.29	0.43
Jamalpur	0.37	0.47	0.40	0.42	Burdwan (M)	1.00	0.52	0.71	0.74
Jamuria	0.20	0.70	0.21	0.37	Dainhat (M)	1.00	1.00	0.68	0.89
Kalna-I	0.36	0.56	0.57	0.50	Durgapur (M)	0.14	0.88	0.46	0.49
Kalna-II	0.33	0.76	0.43	0.51	Gushkara (M)	0.43	0.87	0.61	0.64
Kanksa	0.44	0.81	0.38	0.54	Jamuria (M)	0.29	0.62	0.44	0.45
Katwa-I	0.02	0.77	0.47	0.42	Kalna (M)	1.00	0.52	1.00	0.84
Katwa-II	0.09	0.43	0.44	0.32	Katwa (M)	1.00	0.77	0.76	0.84
Ketugram-I	0.65	0.62	0.32	0.53	Kulti (M)	0.67	0.97	0.42	0.69
Ketugram-II	0.45	0.87	0.40	0.57	Memari (M)	1.00	0.37	0.57	0.65
Khandoghosh	0.44	0.42	0.33	0.40	Raniganj (M)	1.00	0.32	0.52	0.61
Memari-I	0.20	0.53	0.43	0.39					
Memari-II	0.36	0.50	0.49	0.45	**District Total**	**0.27**	**0.60**	**0.40**	**0.42**

Source: Same as Table 5.1

Note: EII refers to Educational Infrastructural Index. Indices prepared using UNDP method of Relative Gap

5.2.3 Educational Infrastructure Index (EII)

Based on the availability & accessibility of institutions, facilities in the schools, and availability of teachers & facilities in those institutions, we have developed Access Index, Facilities Index, and Teacher Index for the district as well for the blocks and municipalities, which we have already discussed. From these, an Educational Infrastructure Index (EII) has also been computed as a simple average of the three indices (Table 5.3). This gives us a single-point measure of the Institutional Support System in place for development of educational capabilities of the people of the district. It is observed that the average EII for the district is 0.42 on a scale of 0 to 1. Being below the half-way, it signifies is that there exists considerable spatial inequality within the district and for a large number of blocks the school infrastructural support system needs major improvement. If we look deeper, it appears that in terms of EII, Barabani, Galsi-I, Galsi-II, Katwa-II, Khandoghosh, Memari-I, Jamalpur, Jamuria, and Salanpur are lagging regions and needs special focus.

5.3 EDUCATIONAL ACHIEVEMENT OF THE PEOPLE OF THE DISTRICT

The current status of Human Development would be indicated by the state of educational achievement of the people of the district. This can be measured by the commonly used indicators of Literacy and Gross Enrolment Rates. However, we should also look at the Qualitative aspect, and make use of indicators like Net Enrolment Rates, Drop Out Rates, Mean Years of Schooling, and indicators specifically designed for this report like *Completion Rates,* and *Retention Rates.*

Table 5.4

Gender Gaps in Literacy –2011-2015

Blocks/ ULB	2011	2015	Blocks/ ULB	2011	2015
Andal	17.2		Mongalkote	14.7	
Ausgram-I	14.6		Monteswar	9.9	
Ausgram-II	15.7		Pandabeswar	19.4	
Barabani	20.6		Purbasthali-I	12.1	
Bhatar	13.1		Purbasthali-II	11.6	
Burdwan-I	13.1		Raina-I	11.8	
Burdwan-II	14.8		Raina-II	13.2	
Durgapur-Faridpur	17.2		Raniganj	19.7	
Galsi-I	15.3		Salanpur	15.6	
Galsi-II	15.1		Asansol (M)	10.8	
Jamalpur	13.8		Burdwan (M)	7.4	
Jamuria	21.6		Dainhat (M)	11.1	
Kalna-I	13.2		Durgapur (M)	10.6	
Kalna-II	9.0		Gushkara (M)	12.9	
Kanksa	15.6		Jamuria (M)	18.8	
Katwa-I	11.2		Kalna (M)	13.8	
Katwa-II	6.5		Katwa (M)	11.0	
Ketugram-I	10.2		Kulti (M)	16.1	
Ketugram-II	12.4		Memari (M)	12.3	
Khandoghosh	14.3		Raniganj (M)	12.9	
Memari-I	10.5				
Memari-II	14.4		**District**	**13.4**	

Source: Census of India, 2011; Field Survey, 2015.

5.3.1 Literacy

We first start with Literacy. Over the last century, literacy in India has increased from 5.3 per cent in 1901 to 65.4 per cent in 2001 and further to 72.1 per cent in 2011. However, the improvement is much more pronounced for the males compared to the females, especially till 1981. As a result, the gender gap (difference between the per cent figures for the males compared to the females - GG) in literacy soared from 9.2 points in 1901 to 26.8 points in 1981, but declined thereafter to 21.7 points in 2001. The situation is better in our district with overall literacy being 79.2 per cent in 2011 and Gender Gap at 13 percentage point. Overall literacy rates are high in the Urban areas mainly, and also in blocks like Kalna-II, Katwa-II, Monteswar, and Raina-II. On the other hand, Literacy rates are certainly discomforting in

Ketugram-I & II, Ausgram-II, Barabani, Jamuria and Memari (M). Gender gaps are higher in Barabani, Jamuria, Raniganj, Pandabeswar, and Andal.

We have computed gender gap adjusted literacy rates for the district and sub-regions (Table 5.5). It is observed that the District score in this account is 79 per cent, with Rural score being 75 per cent and the Urban score being 82 per cent. Areas with high scores are Katwa-II, Kalna-II, Monteswar, Raina-II, along with some of the urban areas. Scores are quite low in Ketugram-I & II, Barabani, Jamuria, Ausgram-I & II and Memari (M). These areas therefore need special focus for improvement of Female Literacy. The Gender Gap Adjusted Literacy Rates were used as Literacy Index for the blocks as well as for the District in later analysis.

Table 5.5

Gender Gap Adjusted Literacy Scores – 2011

Blocks/ ULB	Total	Blocks/ ULB	Total	Blocks/ ULB	Total
Andal	79.0	Katwa-I	71.2	Salanpur	81.4
Ausgram-I	70.9	Katwa-II	93.0	Asansol (M)	86.4
Ausgram-II	69.3	Ketugram-I	68.8	Burdwan (M)	94.7
Barabani	68.9	Ketugram-II	67.6	Dainhat (M)	87.3
Bhatar	73.7	Khandoghosh	79.3	Durgapur (M)	90.0
Burdwan-I	78.5	Memari-I	75.1	Gushkara (M)	83.5
Burdwan-II	76.8	Memari-II	76.9	Jamuria (M)	71.6
Durgapur-Faridpur	75.5	Mongalkote	77.2	Kalna (M)	78.8
Galsi-I	75.3	Monteswar	89.5	Katwa (M)	72.0
Galsi-II	72.2	Pandabeswar	73.4	Kulti (M)	77.1
Jamalpur	76.7	Purbasthali-I	80.4	Memari (M)	69.2
Jamuria	69.3	Purbasthali-II	72.6	Raniganj (M)	79.0
Kalna-I	79.6	Raina-I	83.3		
Kalna-II	93.0	Raina-II	84.8	**District**	**78.6**
Kanksa	78.1	Raniganj	74.3		

Source: Same as Table 5.1

Note: Literacy Scores are prepared following methodology described in Technical Appendix.

5.3.2 Enrolment

The step beyond literacy leads to the schools. We now examine the trends exhibited by school enrolment of children in the District. At the national level, a phenomenal increase in numbers of schools and enrolment drive have not been enough to bring all our children to school. Scaling for population differences, Net Enrolment Ratio (NER) is commonly used measure relevant for capturing the collecting power of the educational system. The Net Enrolment Ratio (NER) for Primary stages for the Nation as a whole has been 76 per cent in 2011-12. However, at the district level it is difficult to estimate NER. We have tried to estimate GER by looking at Enrolment in formal schools as a percentage of all children in corresponding age group (derived by adding up children in formal schools, informal schools, and out of school children).

Table 5.6

Enrolment Ratios in School-Stages - 2014

Blocks/ ULB	Gross Enrolment in Primary Stages			Gross Enrolment in Middle Stages			Gross Combined Enrolment Scores		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andal	81.5	81.1	81.3	66.0	67.6	66.8	74.5	75.1	74.8
Ausgram-I	82.9	80.5	81.7	58.0	55.4	56.8	71.6	69.3	70.5
Ausgram-II	85.1	84.4	84.8	77.7	77.8	77.8	81.7	81.4	81.5
Barabani	86.9	84.7	85.8	57.3	58.4	57.8	73.1	72.6	72.9
Bhatar	86.7	86.1	86.4	63.8	69.4	66.5	76.0	78.4	77.2
Burdwan-I	83.2	82.0	82.6	57.2	56.0	56.6	71.4	70.3	70.8
Burdwan-II	93.1	93.2	93.1	70.3	71.0	70.6	82.1	82.5	82.3
Durgapur	90.2	89.5	89.9	58.3	63.2	60.7	75.1	77.0	76.0
Galsi-I	89.5	89.0	89.2	66.2	72.7	69.4	78.5	81.3	79.9
Galsi-II	86.4	86.8	86.6	68.9	75.3	72.0	78.3	81.5	79.8
Jamalpur	89.1	90.0	89.5	71.8	78.3	75.0	80.9	84.4	82.6
Jamuria	92.5	92.4	92.5	49.4	51.5	50.4	71.8	72.7	72.3
Kalna-I	83.2	82.6	82.9	72.7	78.2	75.4	78.4	80.6	79.5
Kalna-II	86.2	86.8	86.5	74.3	80.5	77.3	80.7	83.9	82.2
Kanksa	80.1	79.9	80.0	61.4	63.2	62.3	71.8	72.5	72.1
Katwa-I	85.4	83.4	84.4	55.0	67.7	61.2	71.4	76.3	73.8
Katwa-II	89.7	89.0	89.4	60.7	72.3	66.2	76.0	81.1	78.5
Ketugram-I	74.2	74.2	74.2	55.4	61.9	58.6	66.2	68.9	67.5
Ketugram-II	77.9	75.7	76.8	71.8	71.3	71.5	75.3	73.8	74.5
Khandoghosh	90.5	90.6	90.6	57.9	63.6	60.6	75.0	77.8	76.3
Memari-I	84.7	84.2	84.5	74.1	77.3	75.7	79.8	81.1	80.4
Memari-II	95.4	94.9	95.1	73.2	79.5	76.2	84.5	87.4	85.9
Mongalkote	85.8	85.5	85.7	59.1	65.7	62.3	73.4	76.4	74.9
Monteswar	77.6	77.6	77.6	62.9	71.5	67.1	71.2	74.9	73.0
Pandabeswar	83.2	82.2	82.7	51.8	52.3	52.0	68.9	68.7	68.8
Purbasthali-I	79.3	79.6	79.5	56.3	61.0	58.6	69.2	71.4	70.2
Purbasthali-II	82.0	82.9	82.4	79.1	87.8	83.4	80.7	85.1	82.9
Raina-I	91.8	92.3	92.1	67.1	78.3	72.4	80.0	85.6	82.6
Raina-II	84.0	84.2	84.1	71.4	73.4	72.4	78.2	79.3	78.7
Raniganj	90.7	91.2	90.9	57.6	56.5	57.1	75.0	74.6	74.8
Salanpur	89.9	88.9	89.5	59.1	69.8	64.3	75.4	79.9	77.6
Asansol (M)	99.8	99.9	99.8	57.1	58.0	57.5	78.4	78.9	78.7
Burdwan (M)	99.8	99.8	99.8	62.7	69.9	66.2	81.3	84.9	83.0
Dainhat (M)	100.0	100.0	100.0	87.6	99.8	93.5	93.8	99.9	96.7
Durgapur (M)	99.8	99.9	99.8	68.2	72.0	70.0	84.0	85.9	84.9
Gushkara (M)	99.9	99.9	99.9	73.0	81.1	77.0	86.5	90.5	88.4
Jamuria (M)	98.9	98.8	98.9	51.2	57.8	54.5	75.2	78.5	76.8
Kalna (M)	99.8	99.9	99.9	98.5	103.5	100.9	99.1	101.7	100.4
Katwa (M)	99.9	99.9	99.9	78.4	87.6	82.9	89.2	93.8	91.4
Kulti (M)	99.9	99.9	99.9	56.6	56.7	56.7	78.2	78.3	78.3
Memari (M)	100.0	100.0	100.0	70.0	57.9	64.6	85.0	79.0	82.3
Raniganj (M)	99.8	99.9	99.8	66.2	62.9	64.6	83.0	81.4	82.2
District Average	**88.5**	**88.3**	**88.4**	**63.6**	**67.9**	**65.7**	**76.8**	**78.7**	**77.8**

Source: Same as Table 5.1

It is observed that GER for the district is over 88 per cent at the primary level and over 80 per cent for the Upper Primary level. Girls have marginally lower GER at primary level but higher GER at the Upper Primary level. This may be due to over-age enrolment of girls as

also higher drop out of boys in the 11-13 years age group to supplement family income. Combined GER is higher in the Municipal areas as also in the blocks of Ausgram-II, Burdwan-II, Jamalpur, Kalna-II, Memari-I & II, and Purbasthali-I & II (Table 5.6). On the other hand, combined GER is low in Ketugram-I & II, Ausgram-I, Burdwan-I, Kanksa, Monteswar, Pandabeswar, and Purbasthali-I. Worrying factors are low GER for girls in Ausgram-I, Kanksa, Ketugram-I & II, and Monteswar.

5.3.3 Drop Out Rates

It is generally observed across the country that the enrolment rates are lower for the Junior High school stages compared to the primary stages consistently. This indicates that retention of children in schools is difficult and a fraction of the enrolled students do drop out for various reasons. In fact, the Dropout rates (DOR) are substantially high in India. Also, the DOR are higher for the girls compared to the boys.

In absence of continuous monitoring of individual child, it is difficult to estimate the extent of drop out in the district or sub-district level. However, we have used the cohort method to have a crude estimate of DOR in the district and the sub-regions. For the district, the DOR is estimated to be just 15.6 per cent across the primary-middle stage during 2008-13 period. Contrary to national trend, DOR is higher for boys than girls at the district level. Yet, the situation is not at all comfortable if the regional difference is taken into account. DORs are disturbingly high in Ausgram-I & II, Barabani, Faridpur-Durgapur, Galsi-II, Jamalpur, Kalna-I, Katwa-II, Memari-I, and Asansol (M). In addition to these areas, Female DOR is alarmingly high Kalna-I, Dainhat (M) and Kalna (M) also. In these areas on an average 25-35 per cent of Primary students are leaving school before completing class-VIII. Retaining these students is a major challenge to the policy makers.

The DOR, though is a very important indicator of educational attainment, has certain limitations. It only reflects the percentage of the enrolled students that leave before completing a certain stage of schooling. However, to know what proportion of children of the relevant age group is really completing a certain level of schooling, one should concentrate on the completion rate (CR) – obtained by multiplying NER with complementary of DOR. It is observed that CR in the District is 82 per cent for the Primary stage and 57 per cent for the Upper Primary stage.

5.3.4 Educational Development Index

Based on the discussions we have so far had on the achievement of the district in terms of Education and Capacity Building, we can prepare Composite scores of educational

development. This will give us a focussed view of the lagging and the better performing sub-regions so that policies can be well directed.

Table 5.7

Educational Development Indices - 2014

Blocks/ ULB	Literacy Index	Enrolment Index	Retention Index	EDI	Blocks/ ULB	Literacy Index	Enrolment Index	Retention Index	EDI
Andal	0.42	0.34	0.94	0.57	Mongalkote	0.36	0.56	0.99	0.64
Ausgram-I	0.12	0.29	0.60	0.34	Monteswar	0.81	0.19	0.82	0.61
Ausgram-II	0.06	0.27	0.58	0.30	Pandabeswar	0.22	0.19	1.00	0.47
Barabani	0.05	0.63	0.65	0.44	Purbasthali-I	0.47	0.31	0.86	0.55
Bhatar	0.23	0.55	0.67	0.48	Purbasthali-II	0.19	0.30	0.70	0.40
Burdwan-I	0.40	0.46	0.65	0.50	Raina-I	0.58	0.64	0.94	0.72
Burdwan-II	0.34	0.65	0.72	0.57	Raina-II	0.64	0.41	0.93	0.66
Durgapur	0.29	0.55	0.57	0.47	Raniganj	0.25	0.58	0.93	0.59
Galsi-I	0.29	0.58	0.74	0.54	Salanpur	0.51	0.06	0.87	0.48
Galsi-II	0.17	0.49	0.57	0.41	Asansol (M)	0.69	0.98	0.27	0.65
Jamalpur	0.34	0.58	0.38	0.43	Burdwan (M)	1.00	0.98	0.76	0.92
Jamuria	0.06	0.69	0.69	0.48	Dainhat (M)	0.73	1.00	0.61	0.78
Kalna-I	0.44	0.35	0.44	0.41	Durgapur (M)	0.83	0.99	0.82	0.88
Kalna-II	0.94	0.36	0.62	0.64	Gushkara (M)	0.59	0.99	0.63	0.74
Kanksa	0.39	0.18	0.67	0.41	Jamuria (M)	0.15	0.93	0.72	0.60
Katwa-I	0.13	0.50	0.80	0.48	Kalna (M)	0.41	0.97	0.54	0.64
Katwa-II	0.94	0.72	0.22	0.63	Katwa (M)	0.16	1.00	0.60	0.59
Ketugram-I	0.04	0.00	0.81	0.28	Kulti (M)	0.35	1.00	0.98	0.78
Ketugram-II	0.00	0.05	0.83	0.29	Memari (M)	0.06	1.00	0.64	0.57
Khandoghosh	0.43	0.65	0.99	0.69	Raniganj (M)	0.42	0.97	0.94	0.78
Memari-I	0.28	0.29	0.00	0.19					
Memari-II	0.34	0.70	0.75	0.60	**District Tot**	**0.41**	**0.54**	**0.75**	**0.57**

Source: Same as Table 5.1

Note: Retention Index is prepared following methodology described in Technical Appendix. All Rates are Gender Gap Adjusted.

We have prepared an Educational Development Index (EDI) from the Gender Gap adjusted Literacy Index, Combined Enrolment Index, and the Retention Rates (complementary of Drop Out Rates) (Table 5.7). It is observed that the average EDI for the district is 0.57, signifying that the achievement of the district in terms of various dimensions of educational capacity building has been moderate. The success seems better than the infrastructural support index, indicating that available infrastructure are being adequately exploited and converted to educational success. One therefore has to expand the infrastructural support and utilise existing infrastructure in a better way. Also, more facilities, especially in the rural areas, are needed to bring and retain the children in schools.

EDI is substantially higher in Urban areas compared to Rural areas, as indicated by the higher scores for the Municipal areas compared to the CD Blocks. This indicates Town-centric nature of the development of our educational system. This has to be changed and capacity building process has to be dispersed over a wider regional space. Well performing areas in terms of EDI has been the Municipal areas and the areas of Raina-I & II, Khandaghosh,

Kalna-II, Mongolkote, and Katwa-II. Lagging regions in this respect are Ketugram-I & II, Ausgram-I & II, Memari-I and Purbasthali-II.

5.4 OTHER DIMENSIONS OF EDUCATION

The success and shortcomings in educational achievements can be explored from various other dimensions as well. We have already looked at gaps in Literacy and Enrolment as absolute shortfalls and observed that the district is doing relatively better than National/State performance. However, we must assess the performance in terms of some well-defined and accepted targets also. For that purpose, we have considered the Millennium Development Goals.

5.4.1 Where are We vis-à-vis the Millennium Development Goals?

Two of the Millennium Development Goals (MDGs) are related to Education. These targets along with the position of the District are provided in Table 5.8. It thus transpires that the district is quite near to achieving the MDGs and should do so before the end of the next Five-year Plan.

Table 5.8
District Performance relative to Millennium Development Goals

Millennium Development Goal	***Achievements***	***Lags***
Completion of Primary Schooling by all children: ***100% Enrolment and Zero Drop Out***	**88%** ***Enrolment Rate*** and **88%** ***Retention Rate*** in Primary Stages in Formal Schools.	About 14 per cent age-specific children not completing Primary schooling.
Gender Equality in Education	Enrolment is higher and Drop Out is lower for Girls at the district level.	High regional disparity with specific blocks lagging behind.

Source: Same as Table 5.1, UNDP Millennium Development Goals (2006), from http://www.undp.org/mdg/ accessed on 30th March, 2014.

5.4.2 Shortcomings in Educational Achievement

Needs Primary Data Analysis

5.5 SPECIAL POLICY INTERVENTIONS

Over the years, the District administration has taken several steps to improve the educational levels herein. Apart from general expansion of facilities and support to institutions, there have been special interventions in the form of ICDS, DPEP, SSA, SSKs & MSKs, and the Midday Meal Scheme. There have been Special schools in the Brick-Kiln Areas and Mines Areas also. Administration has also run Special Bridge Courses for Over-Age Never Enrolled

youth. The impact of these policy interventions has to be examined so that the problems may be avoided and success stories replicated.

5.5.1 SSK & MSK

Specific data needed.

5.5.2 Sarva Shiksha Abhijan (SSA)

Specific data needed.

Table 5.9

Progress of Sarva Shiksha Mission in Bardhaman District – 2008-2014

Indicator	Physical Target	Completed	Completion %	Expense (Rs Lakh)	Per unit cost (Rs Lakh)
New School Building					
Additional Class Room (UP)					
Additional Class Room (P)					
Drinking Water & Toilet (UP)					
Drinking Water & Toilet (P)					
Drinking Water (UP)					
Drinking Water (P)					
Toilet (UP)					
Toilet (P)					
Boundary Wall (UP)					
Boundary Wall (P)					
Circle Level Resource Centre					
Integrated Education Complex					
Circle Resource Centres					
Total for All Schemes					

Source: Office of the Sarva Shikhsa Mission, Bardhaman
Note: UP – Upper Primary; P – Primary.

5.6 SUMMARY FINDINGS

The broad discussions that we have had so far can be objectively summarised in terms of the Executive Summary that follows this section, and also from the District Report Card that we have prepared to assess the position of the district vis-à-vis the state and the national situation (Tables 5.10).

Table 5.10

District Report Card – 2014

Indicators	*Country Score*	*State Score*	*District Score*	*Number of Blocks/ UAs*	
				Below Avg	*Above Avg*
Primary Schools per 1000 pop			0.89	16	26
Primary Schools per Sq Km area			0.99	22	20
Accessibility Index			0.27	13	29
School Facility Index			0.60	19	23
Teacher Availability Index			0.40	14	28

Educational Infrastructure Index	**0.42**	**16**	**26**
Literacy (%)	79.2	25	17
Female Literacy (%)	72.3	26	16
Gender Gap in Literacy (% point)	13.4	22	20
Enrolment Ratio in Primary Stage (%)	88.4	20	22
Drop Out Rate in Primary Stage (%)	15.6	18	24
Literacy Index	0.41	25	17
Enrolment Index	0.54	20	22
Retention Index	0.75	25	17
Educational Development Index	**0.57**	**19**	**19**

Source: Office of the Sarva Shiksha Mission, Bardhaman; District Information on School Education – 2007-08; Census of India, 2011; Tables already prepared by authors in here.

Notes: Primary School within Locality refers to Primary Schools within 1 km of the village in Rural Areas and within Ward in Urban Areas. Literacy Rates for State and Country relates to 5+ population in 2011 Census. For definitions of the Indices, see Appendix.

What is more striking is the fact that over the last seven years the spatial form has changed. Now we have more Blocks/UAs with score above the district average than before in almost all aspects, except Female Literacy (Table 5.11). The improvements in Enrolment and Completion especially are noteworthy, speaking about the success of the district administration in improving the education scenario in hitherto lagging areas of the district.

The other way to look at the temporal trend is to look at the Rank Changes of the Blocks/UAs to examine which areas have shown improvement and which areas have not, albeit in a relative sense. The results from comparing the information obtained from previous DHDR-Bardhaman with the current one are in Table 5.12. This would provide at an immediate glance the areas where policy interventions are necessary.

Table 5.11

Number of Blocks/ UAs above District Average

Indicators	*2007*	*2014*
Primary Schools per 1000 pop	25	26
Primary Schools per Sq Km area	25	20
Accessibility Index	21	29
School Facility Index	24	23
Teacher Availability Index	25	28
Educational Infrastructure Index	**21**	**26**
Literacy (%)	22	17
Female Literacy (%)	23	16
Gender Gap in Literacy (% point)	20	20
Enrolment Ratio in Primary Stage (%)	14	22
Completion Rate in Primary Stage (%)	15	23
Literacy Index	12	17
Enrolment Index	14	22
Retention Index	19	17
Educational Development Index	**12**	**19**

Source: Office of the Sarva Shiksha Mission, Bardhaman; District Information on School Education – 2007-08; Census of India, 2011; Tables already prepared by authors in here.

Notes: Primary School within Locality refers to Primary Schools within 1 km of the village in Rural Areas and within Ward in Urban Areas. Literacy Rates for State and Country relates to 5+ population in 2011 Census. For definitions of the Indices, see Appendix.

Table 5.12

Blocks/UAs showing Rank Changes during 2007-14

EII Rank	*EDI Rank*	
	Improvement	*Deterioration*
Improvement	Barabani, Burdwan-I, Galsi-II, Jamalpur, Ketugram-II, Khandaghosh, Memari-I, Memari-II, Mongolkote, Monteswar, Pandabeswar, Purbasthali-II, Raina - I	Burdwan-II, Faridpur, Durgapur, Galsi-I, Jamuria, Katwa-II, Raina-II, Asansol (MC), Durgapur (MC), Raniganj (M)
Deterioration	Andal, Ausgram-I, Ausgram-II, Kalna-I, Kanksa, Katwa-I, Ketugram-I, Purbasthali-I, Salanpur	Bhatar, Kalna-II, Raniganj, Burdwan(M), Dainhat (M), Guskara (M), Jamuria (M), Kalna (M), Katwa (M), Kulti (M), Memari (M)

Source: DHDR-Bardhaman, Department of Development and Planning, Government of West Bengal. Previous Tables by current authors in here.

5.7 INTERVENTIONS NECESSARY

The problems affecting the district are quite disparate spatially. Since, problems are different, so should be the interventions. We can identify the areas requiring context specific interventions as follows:

Table 5.13

Interventions Necessary in Different Blocks

Interventions Necessary	*Problem Areas Identified*

Improving Access / Availability	Bhatar, Galsi, Mongolkote, and Raina-I
Facilities in Schools	Jamalpur, Khandoghosh, Katwa-II, Memari-II, and Raina-I & II
Increasing availability of Teachers	Galsi-I & II, Barabani, Ausgram-II, Moteswar, Jamuria, Pandabeswar, and Salanpur
Literacy Drive	Ketugram-I & II, Ausgram-II, Barabani, Jamuria and Memari (M)
Special drive for Female Literacy	Barabani, Jamuria, Raniganj, Pandabeswar, and Andal
Girl child Enrolment Drive	Ausgram-I, Kanksa, Ketugram-I & II, and Monteswar
Improving Retention Rates	Ausgram-I & II, Barabani, Faridpur-Durgapur, Galsi-II, Jamalpur, Kalna-I, Katwa-II, Memari-I, Asansol (M), Kalna-I, Dainhat (M) and Kalna (M)

Source: Analysis of authors based on previous tables.

5.8 ROADMAP

The district

Acknowledgement

We acknowledge the hard work put in by the research assistants, all of whom are my students. We also thank personally our colleagues at the department, the Lead Coordinator, the Joint Lead Coordinator for their support to this project. We also thank the University authorities and the District Administration for giving us the opportunity to work on this chapter. This chapter borrows heavily from the Education chapter of the previous version of the DHDR-Bardhaman which was also written by the same author. This was done to maintain comparability in format and presentation.

Technical Appendix

Access Index – Weighted average of primary and middle schools per thousand population and per square kilometer. Primary schools have twice the weight of Upper Primary schools.

Facility Index – Weighted average of primary schools with drinking water, pucca building, electricity, girls' toilet, and middle schools with girls' toilet & electricity. Primary schools have twice the weight of Upper Primary schools.

Teacher Index – Weighted average of teacher per school and teacher student ratio in primary and middle schools.

Combined Educational Infrastructural Index – Simple average of access, facility and teacher indices.

Literacy Index – Gender gap adjusted literacy score (Harmonic mean of male and female literacy with population share as weight).

Enrolment Index – Combined primary & middle enrolment rate adjusted by gender gap.

Retention Score – Complimentary of dropout rate adjusted by gender gap.

Enrolment – Actual figure for formal schools.

Total number of children – Enrolment in formal schools + Enrolment in SSK and MSK + Out of school children

Enrolment Rate – [Formal Enrolment]/[Total number of children]*100

Dropout – Enrolment in Class-I in 2009 – Enrolment in Class-V in 2013

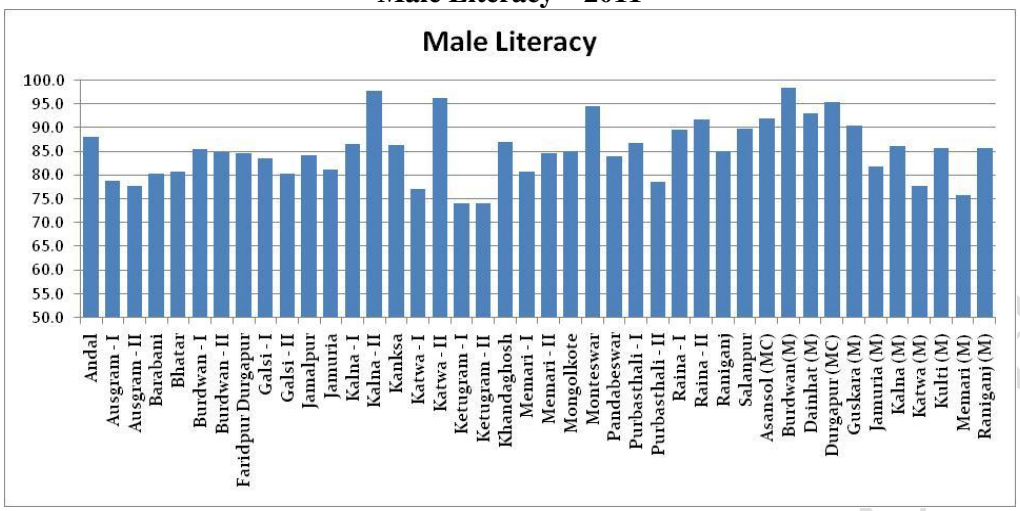
Dropout Rate – [Dropout]/[Enrolment in Class-I in 2009]*100

Retention Rate – [100 – Dropout Rate]

Combined Educational Development Index – Simple average of literacy, enrollment and retention indices.

Figure 5.01

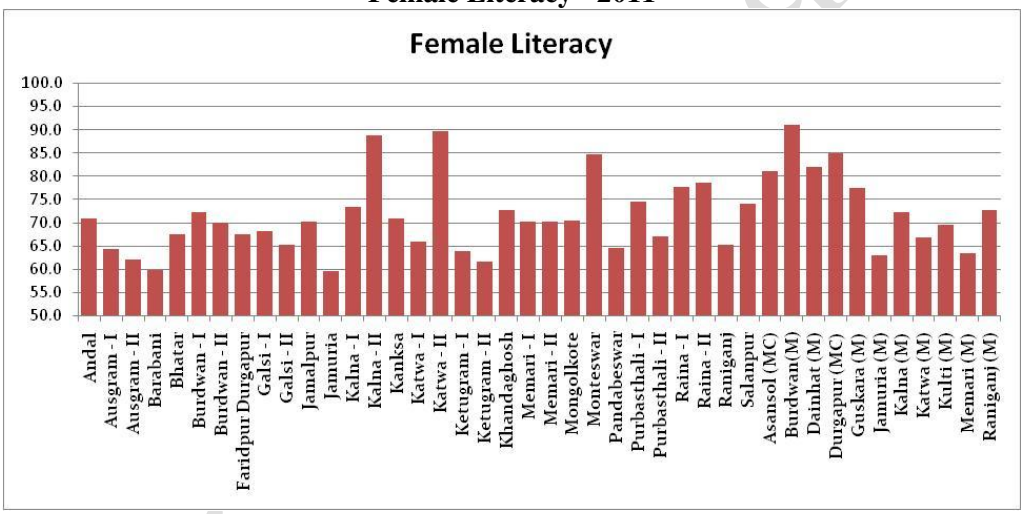
Male Literacy – 2011



Source: Authors' calculation based on tables cited earlier

Figure 5.02

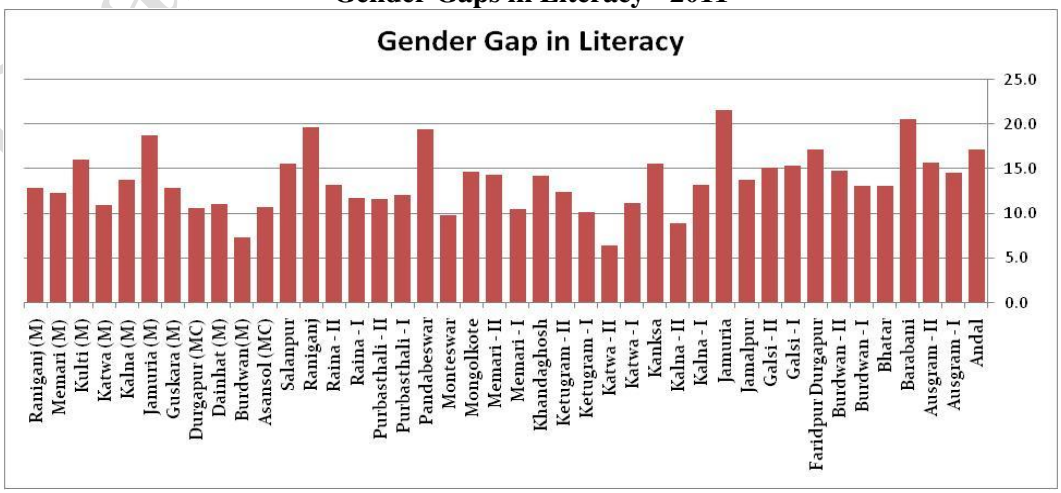
Female Literacy - 2011



Source: Authors' calculation based on tables cited earlier

Figure 5.03

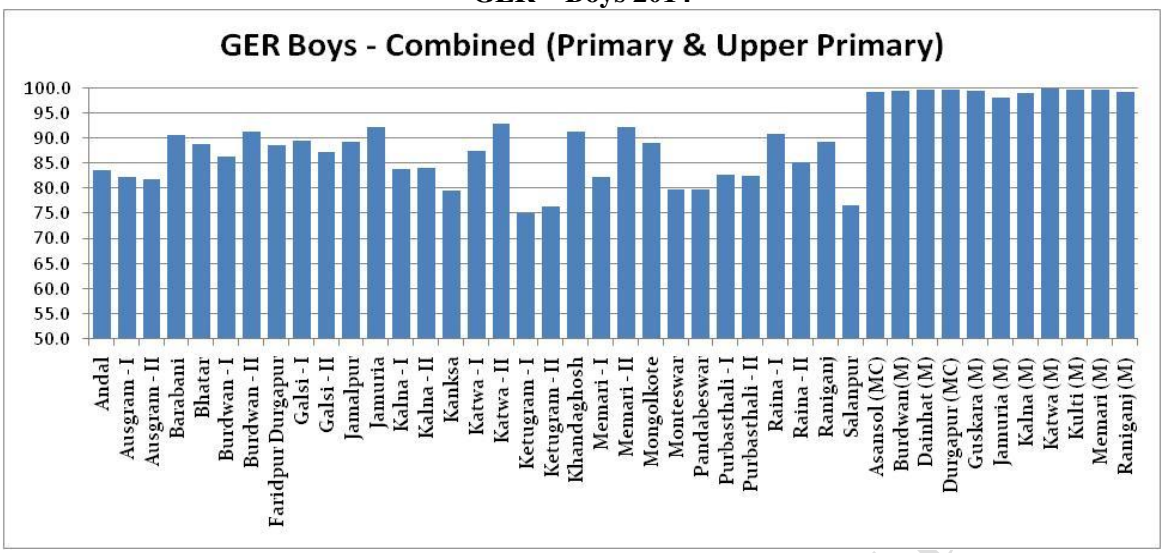
Gender Gaps in Literacy - 2011



Source: Authors' calculation based on tables cited earlier

Figure 5.04

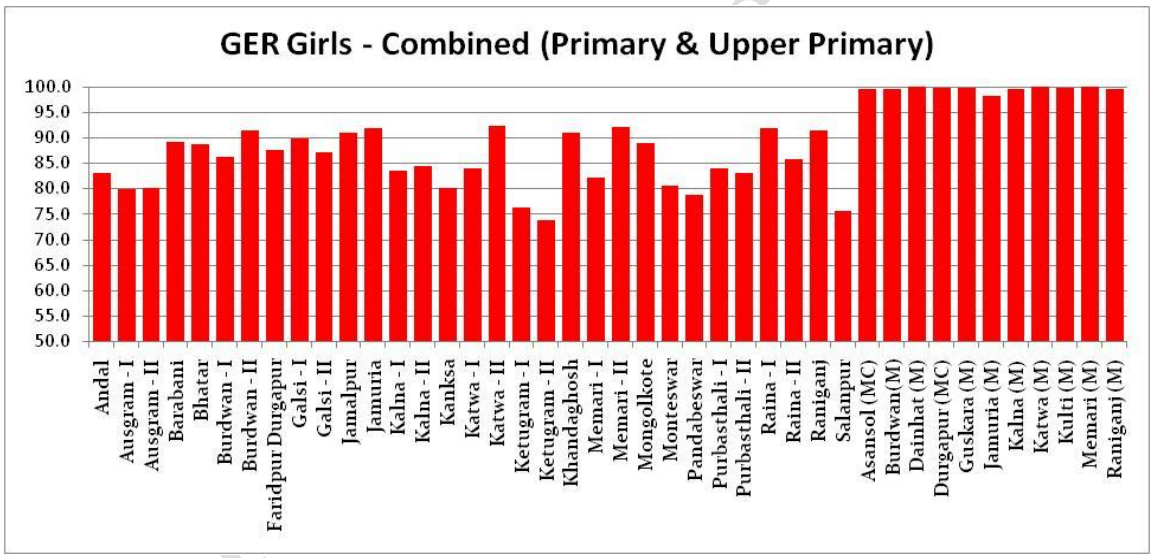
GER – Boys 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.05

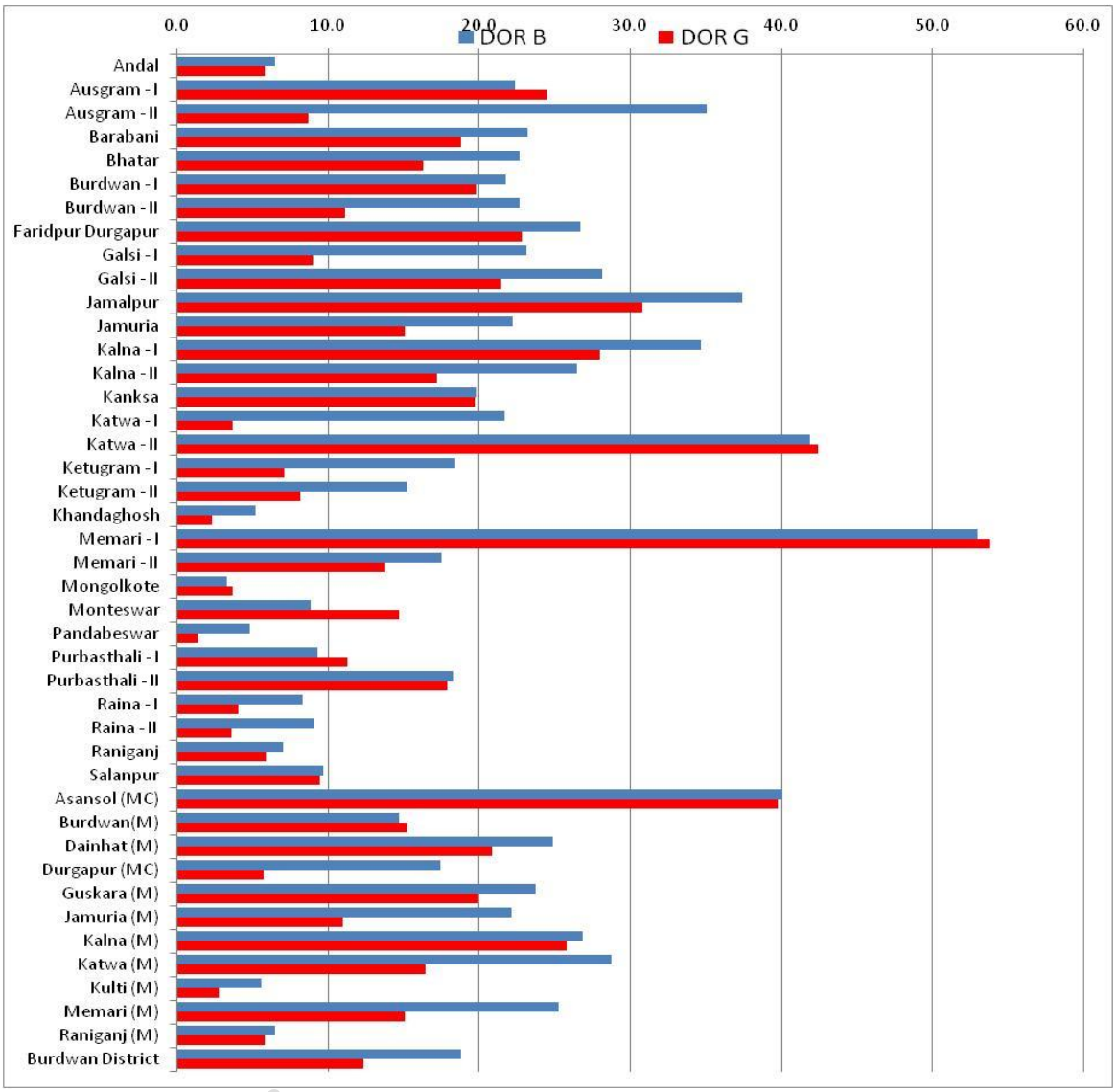
GER – Girls 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.06

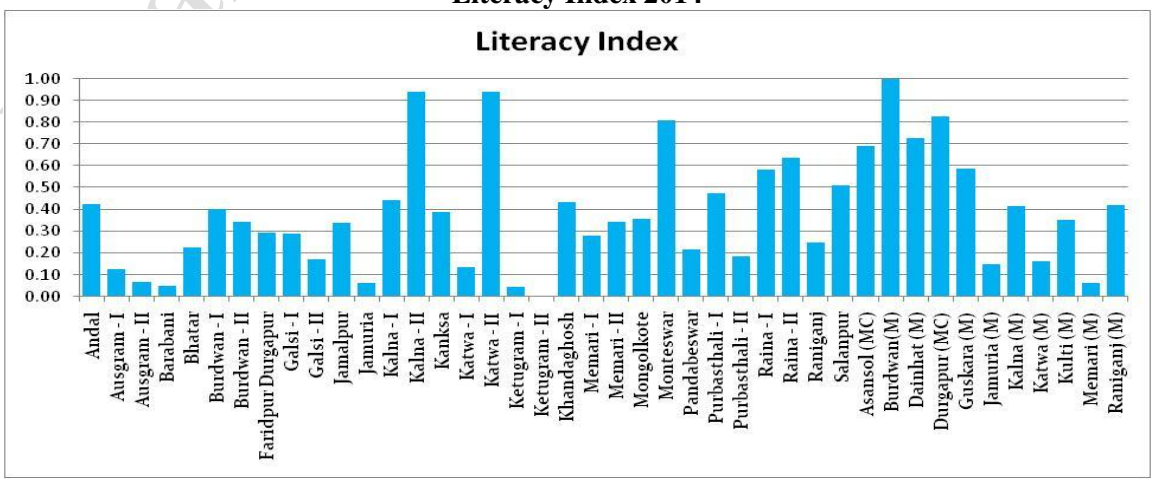
DOR 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.07

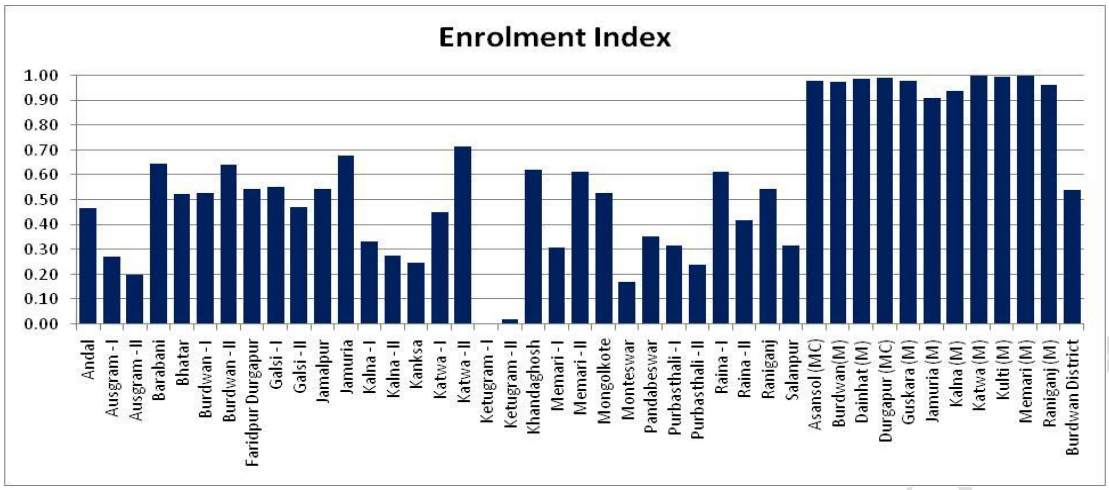
Literacy Index 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.08

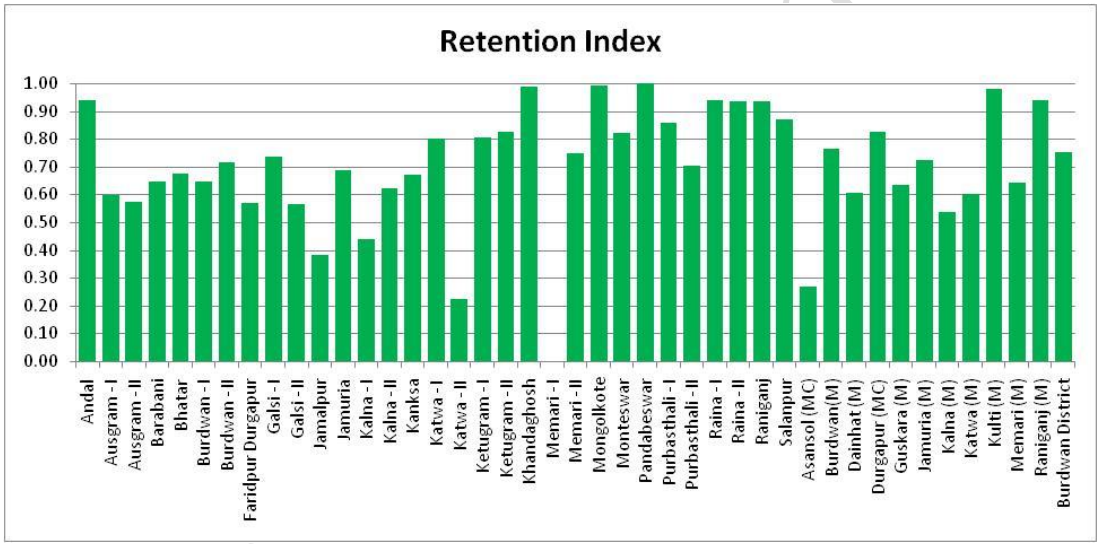
Enrolment Index 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.09

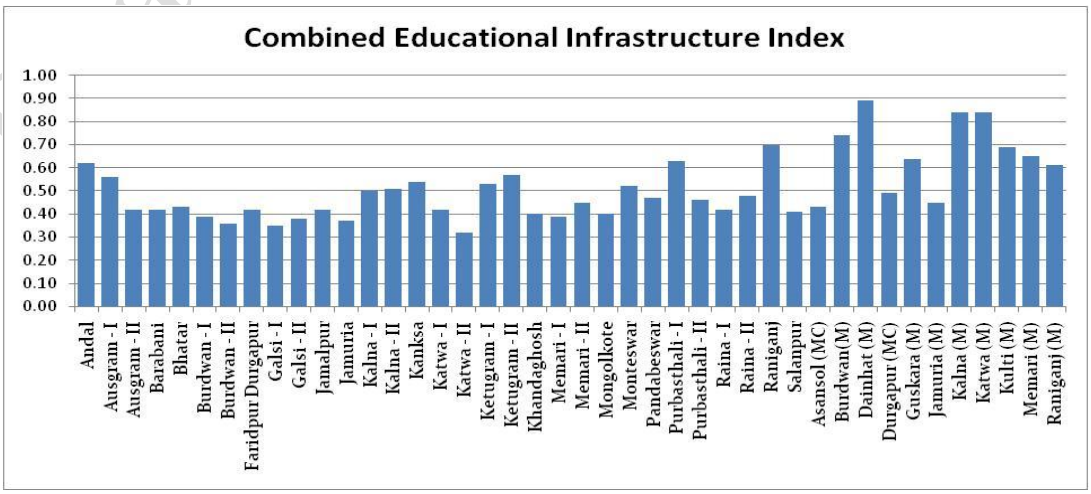
Retention Index 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.10

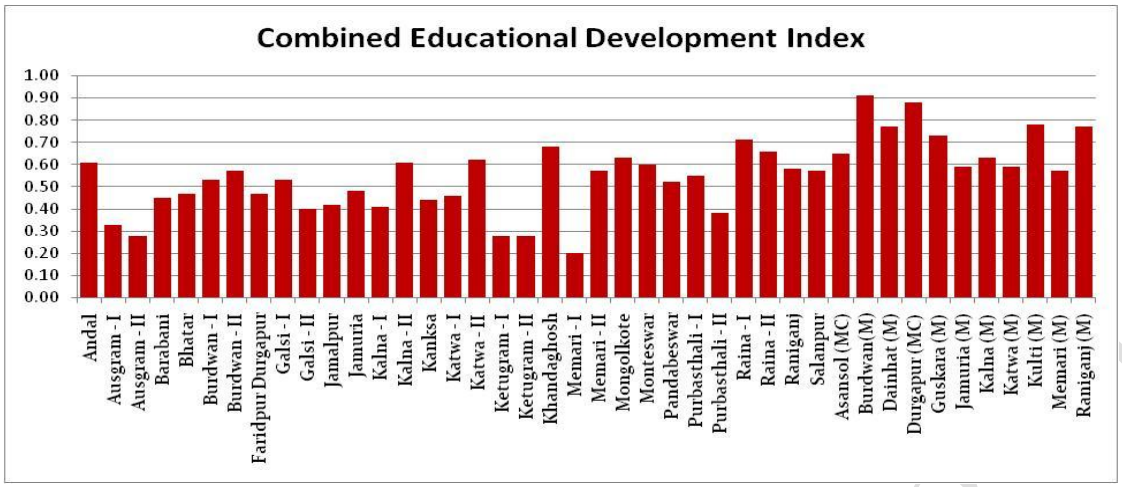
EII 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.11

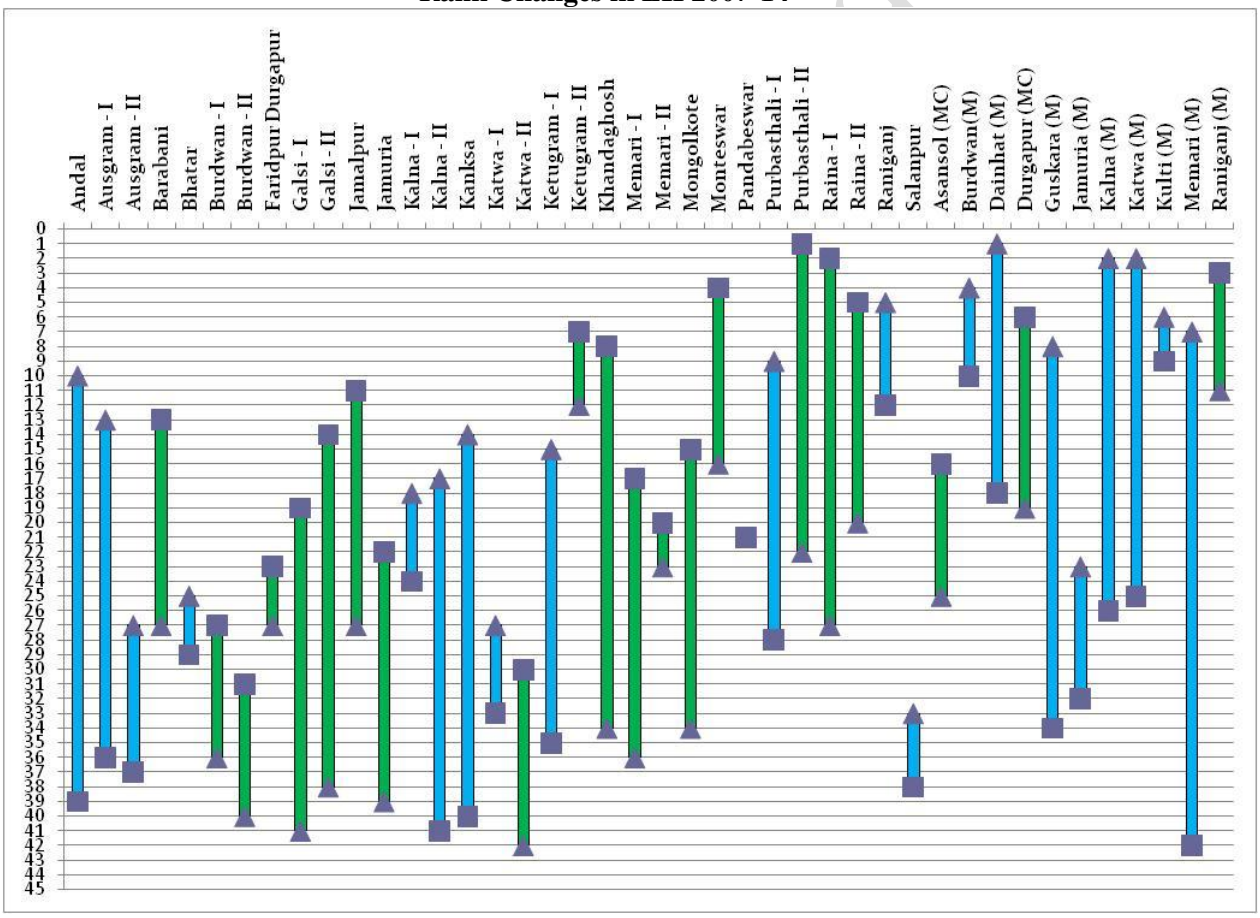
EDI 2014



Source: Authors' calculation based on tables cited earlier

Figure 5.12

Rank Changes in EII 2007-14

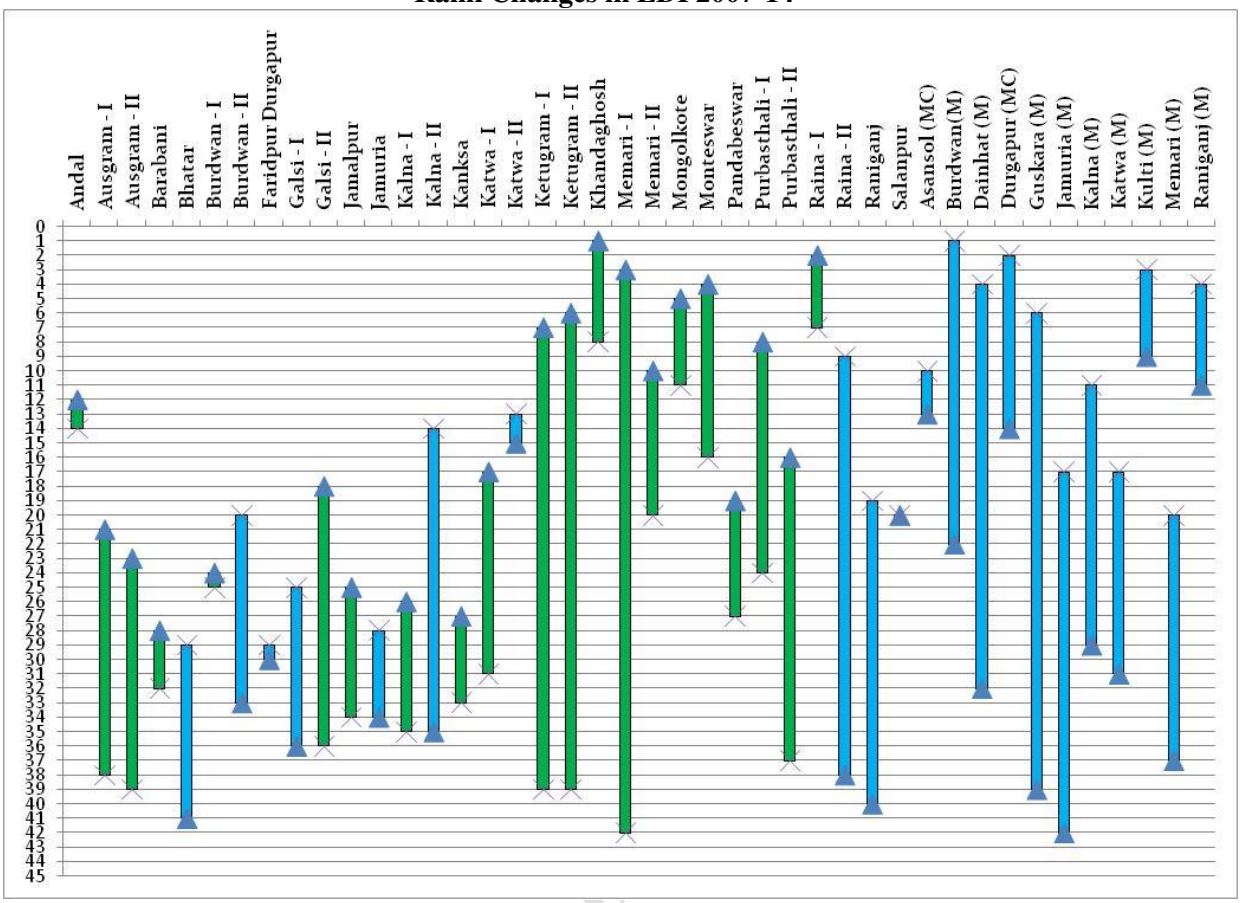


Source: Authors' calculation based on tables cited earlier

Note: denotes improvement in rank; denotes deterioration in rank;

Figure 5.13

Rank Changes in EDI 2007-14



Source: Authors' calculation based on tables cited earlier

Note: denotes improvement in rank; denotes deterioration in rank;