Inter-District Disparities in Meghalaya: A Human Development Approach

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- Objective: To measure disparities across districts, regions and between genders in terms of human development indicators.

- To fulfill the objective both secondary and primary data used.
- Primary data collected from 1020 households from all the 7 districts having 39 Development Blocks through random sampling
- 17 Development Blocks selected out of a total of 39
- 5 villages selected from each Development Block
- 12 households selected from each village

General Features
(Secondary Data)

- Meghalaya is a tribal (80%) and matrilineal state in North East India.
- Three major ethnic groups: Khasi (45%), Garo (32.5%) and Jaintia & others (22.5%)
- Geographical Area (sq. km.): Meghalaya- 22,429 (0.7% of the country)
  - West Khasi Hills- 5247; South Garo Hills- 1887

General Features (contd…)

- Population (lakhs): Meghalaya- 29.6
  - EK Hills- 8.24; SG Hills- 1.43
- Population Density: Meghalaya- 103
  - EK Hills- 292; WK Hills- 73
- Sex Ratio: Meghalaya- 975
  - EK Hills- 1008; Ri-Bhoi- 951
- Urbanization (%): Meghalaya- 19.6
  - EK Hills- 42.1; Ri- Bhoi- 6.8

Measurement of HDI
(Goal Posts)

Attainment	Indicators	Goal Posts	
		Max	Min
Decent Living	Inequality Adjusted Per Capita Consumption Expenditure (Rs./month)	325	65
Knowledge	Adult Literacy Rate	100	0
	Intensity of Formal Education	7	0
Long and Healthy Life	1. Life Expectancy at age 1	80	50
	2. Infant Mortality Rate	120	0

Measurement of Indices

(Formulae used)

$$Education\ /\ Health\ Index = \frac{X_i - Min(F_i)}{Max(F_i) - Min(F_i)}$$

$$Income\ /\ Expenditur\ e\ Index = \frac{Log(Y_i) - Log\{Min(F_i)\}}{Log\{Max(F_i)\} - Log\{Min(F_i)\}}$$

$$HDI = \frac{1}{3}(Education\ \ Index + Health\ Index + Consumption\ Index)$$

Inequality Measurement

$$Coefficien\,t\,of\,Variation\,(CV) = \frac{SD_i}{\overline{X}}\,X100 \qquad \ldots(1)$$

$$Where\;S\tan dard\,deviation\,(SD) = \sqrt{\frac{1}{N}\left\{\sum_{j=1}^{N} p_j\left(X_{ij} - \overline{X}\right)^2\right\}}$$

$$And\;\;Weighted\;Mean(\overline{X}) = \sum_{j=1}^{N} p_j X_{ij}\;\;where\;p_j\;is\;population\;share$$

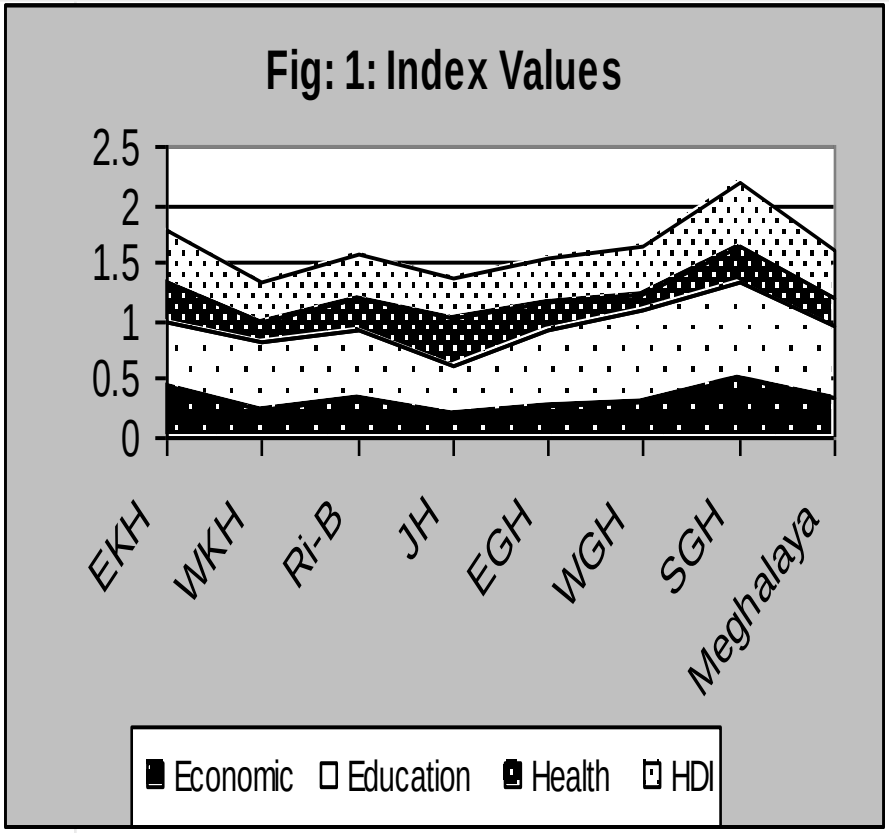
$$\text{Bourguigno n Inequality Index}\,(\text{BII}) = \ln\left(\frac{\sum p_j X_{ij}}{\prod X_{ij}^{\,p_j}}\right) \qquad \ldots(2)$$

District wise Variation in HDI

District/ State	Economic Index	Educational Index	Health Index	HDI
EKH	0.453 (2)	0.552 (6)	0.319 (2)	0.441 (2)
WKH	0.252 (6)	0.560 (5)	0.196 (6)	0.336 (7)
RBH	0.353 (3)	0.570 (4)	0.263 (4)	0.395 (4)
JH	0.194 (7)	0.427 (7)	0.412 (1)	0.344 (6)
EGH	0.269 (5)	0.657 (3)	0.228 (5)	0.385 (5)
WGH	0.299 (4)	0.790 (2)	0.150 (7)	0.413 (3)
SGH	0.513 (1)	0.834 (1)	0.284 (3)	0.544 (1)
Meghalaya	0.334	0.615	0.262	0.404

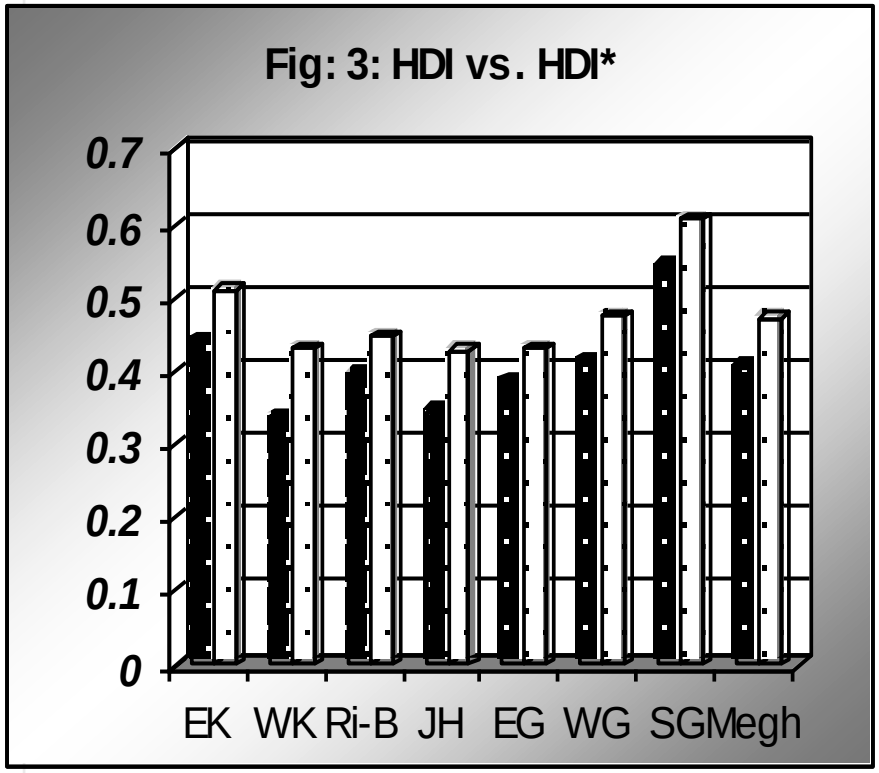
Component Share of HDI

- **Education is highest Contributor to HDI**
- **Huge shortfall in economic attainments in Jaintia Hills**



HDI and HDI* Difference

- **Highest in West Khasi Hills (28%) calling for intervention**

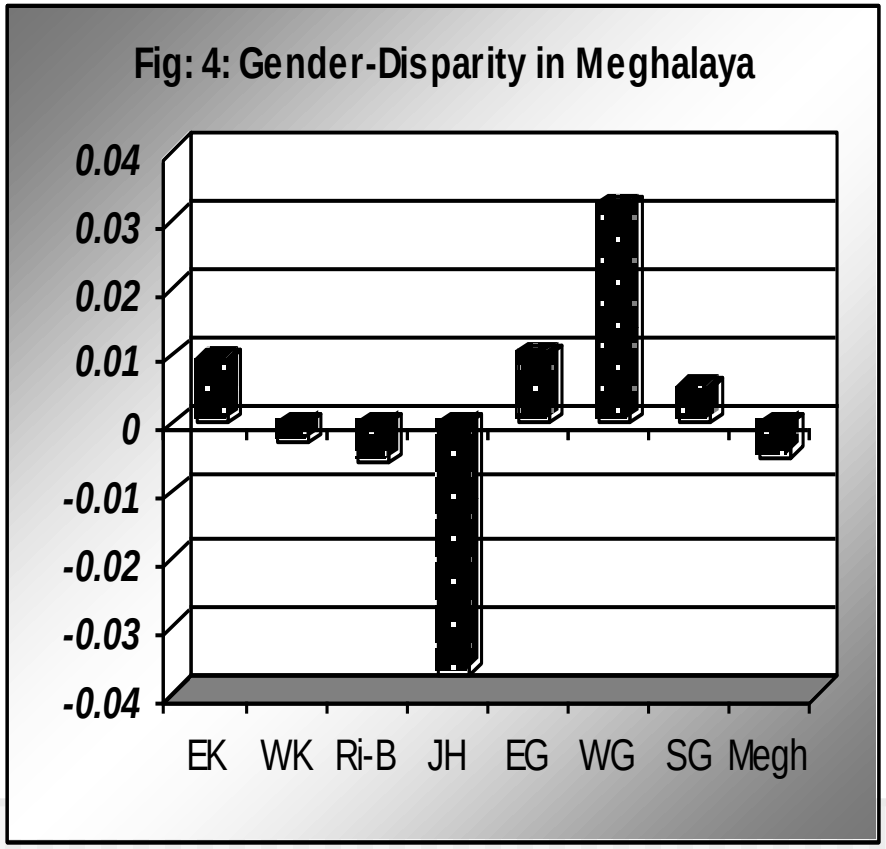


Region wise Variation in HDI

Regions	Economic Index	Education Index	Health Index	HDI
Khasi Hills	0.385	0.557	0.278	0.406
Garo Hills	0.315	0.757	0.188	0.420
Jaintia Hills	0.194	0.427	0.412	0.344
Meghalaya	0.334	0.615	0.262	0.404

Gender Disparity

- **Women enjoying highest opportu-nities in education and health attain-ments in Jaintia Hills as against lowest in WG hills**



Correlation Coefficients between Indices

Index	Income*	Cons. Exp.	Educa-tion	Health	HDI	HDI*
Income*	+1.0	+0.571[S]	-0.036	+0.464[S]	+0.393[S]	+0.464[S]
Cons. Exp.		+1.0	+0.750[S]	+0.123	+0.929[S]	+0.964[S]
Education			+1.0	-0.321	+0.750[S]	+0.607[S]
Health				+1.0	+0.179	+0.001
HDI					+1.0	+0.964[S]
HDI*						+1.0

Inequality Measures for Indices

Indicator	Mean	SD	CV (%)	BII
Income (Rs.)	691.07	144.13	20.86	0.0217
Consumption Expenditure (Rs.)	521.92	83.49	15.99	0.0125
Literacy Rate	71.57	8.50	11.88	0.0076
Intensity of Formal Edn.	3.925	1.28	32.61	0.0496
Infant Mortality Rate	76.00	29.37	38.64	0.0966
HDI	0.404	0.049	12.00	0.0075

Conclusion

- Widespread variations in human development across all the seven districts and disparities between rural and urban areas and between male and female groups of population within the state.
- A significant level of disparity both in income/consumption and in non-income attainments over the districts.
- Inequality in economic attainment happens to be very high.

Conclusion (contd…)

- Both measures of variation and inequality index suggest that few non-income indicators such as intensity of formal education and infant mortality rate have disparities over economic indicators which are indeed a cause of considerable concern.
- Economic inequality is much higher than the overall HDI inequality.
- With an evidence of a huge shortfall in HDI the existing level of variation and disabilities calls for a need to redesign the public policies that directly affect the welfare of the people.

Thank You