

*Planning Commission - UNDP sponsored*  
*"Strengthening State Plans for Human Development"*

# Training of Trainers Workshop on Human Development

## **MODULE: 4**

*Innovations in Measuring Human Development*

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## **Module 4**

### **Innovations in Measuring Human Development**

#### **Time – 1 Hour**

Discussion – 60 minutes

#### **Learning Outcomes**

Knowledge acquired through this module will allow the participants to:

- Discuss the innovations in calculating Indices
- State the various data sources for social statistics
- Discuss the various statistical challenges pertaining to social statistics

One way the use of the human development index has been improved is through disaggregation. A country's overall index can conceal the fact that different groups within the country have very different levels of human development. Disaggregated HDIs are arrived at by using the data for the HDI components pertaining to each of the groups into which the HDI is disaggregated, treating each group as if it were a separate country. Such groups may be defined relative to geographical or administrative regions, urban-rural residence, gender and ethnicity.

Using disaggregated HDIs at the national and sub-national levels helps highlight significant disparities and gaps: among regions, between the sexes, between urban and rural areas and among ethnic groups. The analysis made possible by the use of the disaggregated HDIs should help guide policy and action to address gaps and inequalities. For example, it can help restructure public expenditure (or aid allocations) to regions and/or groups with low HDI ranking.

Disparities may already be well known, but the HDI can reveal them even more starkly. The disaggregation prepared for the 1993 Report on the differences in living conditions in the United States among blacks, hispanics and whites spurred a great deal of policy debate. Disaggregation by social group or region can also enable local community groups to press for more resources, making the HDI a tool for participatory development. It can also be used to hold local representatives accountable.

A study of Poland (Mijakowska 1993), for example, calculates HDIs for 49 administrative units. The indices range from 0.739 to 0.916. Twenty one of them are at medium level and twenty eight of them at high HD. Weighing by population one may say that seventy four percent enjoy high HD and twenty six percent medium level of HD. Disaggregated HDIs have been used for analysis in other countries, including: Brazil, China, Colombia, Egypt,

Gabon, Germany, India, Kazakhstan, Malaysia, Mexico, Nigeria, Papua New Guinea, Poland, South Africa, Trinidad and Tobago, Turkey, Ukraine and USA.

### India calculates its own HDI

In India there has been much discussion on the need to adapt the HDI and other composite indices to the Indian context. The Planning Commission prepared the first National Human Development Report for the country in 2002. This Report provides an extensive data base for at least two and in some cases three points of time since 1980, covering nearly 70 distinct social indicators on various aspects of the quality of life and well being of the people. The “major objective of the Report has been to develop core set of indices that reflect, in some sense, the common concerns, social values and development priorities of all States.” (NHDR, 2002, pg 23). The following table provides list of indicators adopted by the NHDR to prepare the indices.

<b>HDI and GEI (NHDR) –Departure from UNDP indices</b>		
<b>UNDP Indicators</b>	<b>Attainments</b>	<b>NHDR indicators</b>
Life expectancy at Birth	Longevity	Life expectancy at age 1 and Infant Mortality Rate
Adult Literacy Rate with combined enrolment ratio	Educational Attainment	Literacy Rate 7+ and intensity of Formal Education
Real GDP per capita in PPP\$	Economic Attainment	Per capita real consumption expenditure adjusted for inequality: and workers population ratio in case of Gender Equality Index

Source: Planning Commission, National Human Development Report, (2001)

Even the State Human Development Reports (SHDRs) have experimented with the identification of indicators while preparing HD indices , although, the primary reason for this departure is non- availability of reliable and comparable district-wise data. Some of the key data constraints are:

- a. Lack of consistent data across districts.
- b. Lack of data for the districts during a comparable time frame.
- c. Differences in data between departments, and districts and state level.
- d. Non availability of data for some for some districts (for instance if new districts are carved from existing districts)

The SHDRs have attempted to circumvent these issues by using various data sources in conjunction.

Nine SHDRs have been prepared till date – Madhya Pradesh has prepared SHDRs in 1995, 1998 and 2002, Karnataka in 1999, Sikkim in 2001, Maharashtra, Himachal Pradesh and

Rajasthan in 2002, Tamil Nadu in 2003 and West Bengal in 2004. While broadly confirming to the principles for computing HDI, there are some variations in the indicators selected and the way indices for longevity and poverty has been computed in each SHDR.

For arriving at index for **education attainment**, all the SHDRs have used literacy rate as one of the indicators. Enrolment ratio is the second indicator used in all the SHDRs except Maharashtra 2002 where mean years of schooling is the second indicator. While Census data have been used for computing literacy rates, data from State Government Departments has been used for calculating the enrolment ratio and mean years of schooling,

For **health attainment**, the MP HDR 1995 and Maharashtra HDR 2002 have used infant mortality rate as the indicator. All the other SHDRs have used life expectancy as the indicator reflecting health attainment. The data sources used for estimating life expectancy and IMR are Registrar General of India (Occasional Papers) in conjunction with SRS (Sample Registration Surveys) and the Civil Registration System (CRS). The SRS data is not considered statistically significant and the CRS data is not considered to be reliable and hence the SHDRs have primarily relied on data from Registrar General of India (Census data). However, this data is available only decennially and this poses a constraint.

For preparing the **income index**, adjusted per capita incomes and /or poverty rates have been used by all the SHDRs.

The Karnataka HDR 1999 and Sikkim HDR 2001 have converted per capita district domestic product (DDP) to its PPP dollar equivalent by taking the ratio of per capita district GDP to that of the country in Rupees and multiplying this by per capita GDP for the country in PPP\$. Generally speaking, district income has been used as a proxy for district domestic product by using per capita incomes calculated by district shares of State NSDP by district population to arrive at comparable per capita incomes for the districts. The State NSDP is calculated for different categories in the primary, secondary and tertiary sectors. The per capita incomes thus computed have been adjusted using district-wise poverty line developed by Planning Commission (weighted for rural and urban groups) and the per capita income above poverty line adjusted accordingly. The rural and urban poverty rates have been estimated on the basis of regional data from NSSO surveys. Data sourced from the Departments of Economics and Statistics of the respective State governments, and from the Central Statistical Organisation and the Annual Survey of Industries (ASI).