



11 December 2003  
WSIS, Geneva

**A PIONEERING REGIONAL HUMAN DEVELOPMENT REPORT ON  
PROMOTING ICT FOR HUMAN DEVELOPMENT IN ASIA 2004: REALISING THE MILLENNIUM DEVELOPMENT  
GOALS**

**ICTforHD Index: Component Indices**

A complementary quantitative study was undertaken to explore the empirical linkages between ICTs and MDGs for human development towards the preparation of UNDP's Regional Human Development Report on *Promoting ICT for Human Development in Asia 2004: Realising the Millennium Development Goals*. Selected indicators were used to construct a set of thematic **component indices** covering five distinct dimensions of ICT availability and use, which were then aggregated into a composite aggregate index capturing ICT and human development relationship.

The component indices reveal the variations between the nine countries on various aspects of ICT such as i) skill-independent ICTs ii) skill dependent ICTs iii) efficiency and speed iv) social sector targeting and v) vulnerable group targeting. Two different statistical methods were used: i) Range Equalisation (RE) method and ii) Division by Mean (DM) method.

Ranking obtained by Range Equalisation method (*See Tables 1 and 2*) reveals that certain countries rank consistently high on most of the indicators. Malaysia ranks first when it comes to the indices of skill-independent, skill dependent and efficiency and speed. China appears on top when it comes to targeting the social sector and India ranks the highest under vulnerable groups targeting.

**Table 1: Component Indices Showing Different Aspects of ICT Development and their Aggregate Index obtained by Range Equalisation Method for Nine Asian Countries**

Countries	Indices Pertaining to Different Aspects of ICT Development					Aggregate Index Rank
	Skill-independent ICT rank	Skill-dependent ICT rank	Efficiency and Speed rank	Social Sector Targeting rank	Vulnerable Group Targeting rank	
Malaysia	1	1	1	3	2	1
China	2	3	5	1	6	2
Thailand	3	2	4	4	3	3
India	7	6	2	2	1	4
Pakistan	8	7	3	5	4	5
Sri Lanka	4	5	2	7	8	6
Indonesia	5	5	6	6	5	7
Mongolia	6	4	7	8	7	8
Viet Nam	4	5	8	9	9	9

The Division by Mean method ranks Sri Lanka highest on indicators of efficiency and speed, while Malaysia again performs the best on many of the indicators.

Table 2: **Component Indices Ranks Showing Different Aspects of ICT Development and Aggregate rank as obtained by Division by Mean Method for Nine Asian Countries**

Indices Pertaining to Different Aspects of ICT Development						
Countries	Skill-independent ICT Rank	Skill-dependent ICT Rank	Efficiency and Speed Rank	Social Sector Targeting Rank	Vulnerable Group Targeting Rank	Aggregate Rank
Malaysia	1	1	2	4	1	1
China	2	3	4	1	6	2
Thailand	3	2	6	3	3	3
Sri Lanka	5	5	1	9	8	4
India	8	7	3	2	2	5
Mongolia	4	4	8	7	5	6
Indonesia	6	5	7	6	7	7
Pakistan	9	8	5	5	4	8
Viet Nam	7	6	9	8	9	9

The component indices obtained by combining the indicators within each category reveal that though a country may score high or low overall, the ranks could vary between different categories. This in turn implies that the countries which are ranking high on availability linked ICTs might not necessarily perform the best on targeting the social sectors or vulnerable groups, the latter being more relevant from the human development perspective. This disaggregated indexing can help a sharper policy focus on ICT dimensions relevant for human development.