

34th Session of the Statistical Commission

4 – 7 March 2003

Agenda item 6 (b):

Activities not classified by field: Harmonization of indicators and reporting on progress towards the UN Millennium Development Goals

Background Paper

“Preliminary study on the availability of data for indicators”

Background

In its “Report of the Friends of the Chair of the Statistical Commission on an assessment of the statistical indicators derived from United Nations summit meetings”¹ (E/CN.3/2002/26), the Friends of the Chair designed a framework of about indicators dividing them into three tiers according to their priority. In this context, the group faced the problem that “it was impossible to carry out a detailed assessment of the availability of 280 indicators in all countries of the world in the time available” and, therefore, recommended “that the United Nations Statistics Division submit a report to the Commission on the availability of indicators in tiers 1 and 2 (and tier 3 where information is available) of the proposed framework” (Recommendation 14) This background document is a first attempt to study the availability according to this recommendation. This study can only be the basis for further work that needs to be done. For instance this study does not contain yet an “assessment of what might be needed to overcome the shortfall”, which was suggested in the Friends of the Chair’s report.

Indicators

For this exercise the list of eighty indicators that form the tier 1 and tier 2 of the Friends of the Chair indicator framework were considered. A number of 24 Millennium Indicators² that are not part of neither tier 1 nor tier 2 were added, so that in total 104 indicators have been considered.

Sources considered

Data are available from various national and international sources. This study focuses only on international sources, in particular international databases published either on websites, on CDs or in printing. Where possible, the data was extracted from the UNSD Millennium Indicator Database (<http://millenniumindicators.un.org/>) and the UNSD Common database, although these databases are not necessarily the primary international source. In other cases databases available on the websites of the specialized agencies and international organizations as well as published CD and printed material were used as specified in the annex. Data published there is usually based on national reporting, sometimes adjusted and sometimes estimated. The notes in the table in the annex try to identify such categories for each indicator.

While this study is based on databases available at agencies and organizations at the international level, it is merely the result of a desk study done at UNSD and was not discussed with the disseminating organization. Further research together with these organizations is needed to validate the numbers given in the table.

¹ “Summits” is referring to summits held before 2000, in particular not taking into account the Monterrey and the Johannesburg summit.

² Of the 24 indicators, 13 indicators cover the Millennium Summit goals and targets in health; another 11 were proposed for coverage of the area of goal 8 “Global Partnership for Development” and pertain to specified subsets of countries (such as DAC countries or least developed countries) and global totals only.

Defining availability

When defining “availability” of an indicator (or more correct: availability of data for an indicator) one faces the following challenges:

- “Multi-layered indicators”: Whereas “total population” is one figure, “population by five year age groups and sex” represents at least 60 figures. The “use of pesticides per unit of agricultural land area” is another example: Data on how many different pesticides is necessary to consider the indicator being available for a certain country?
- “Time/Periodicity”: Is an indicator generally considered *available* only if data is available annually? Indicators that rely on censuses will not be available on a yearly basis but rather on a decennial basis. In addition, some phenomena to be measured only change gradually over time; hence there is no need for annual data.
- “Breakdowns by sex, age, urban/rural or regionally”: Whereas for many indicators a breakdown by sex and/or age and/or urban/rural is a value added or even essential, does it mean that the existence of country data without these breakdowns does not justify to say data for this indicator was available?
- “Country coverage/relevance”: Some indicators are neither necessary nor suitable for certain countries. For example: Landlocked countries cannot and need not produce data on “Algae concentration in coastal waters” and only donor countries need to produce data on ODA. So the number of countries that need/can produce data for a certain indicator can be different for some indicators.
- “Partial coverage within a country”: Environmental data like “Ambient air pollutants in urban areas” depends on the existence of monitoring stations.
- “Estimates”: Is an indicator available, if there are only estimates for certain or all years?
- “Timeliness”: To be useful some data need to be available very soon after the reference year. Is data really available, if it is published and hence available only after years, when it might not be useful for policy makers any more?
- “Methodology”: Is data only considered available if it was produced adhering to certain internationally agreed standards?

Method

This desk study had to take a pragmatic approach in various aspects. We focused on how recent data was available looking at the availability of data for “any time”, for the period “1990 – 2002” (approximately “the last ten years”) and for the period of “1997 – 2002” (approximately “the last five years”). We asked the question: For how many countries was there at least one datum published in these periods. The countries considered in this exercise were the 191 Member States of the United Nations.

When proxies and estimates were considered, this is indicated in the table. The availability of data for breakdowns has only been taken into account to a very limited extent. Again, where information was immediately available this is noted under “notes”. In terms of multi-layered indicators, one key series was identified and availability for it presented as an example.

Results

The results of this availability study are presented in the annex to this document.

Future work

As mentioned before: this is work in progress. Two steps could be suggested for the future: Firstly, verifying the data with the respective agencies is essential. Secondly, a common detailed analysis with the aim to make concrete suggestions on how the international community can support countries to improve the situation of data availability could follow.

Annex 1

Domain/Subdomain/Indicator	FoC	MDG	Any year	1990-2002 1 or more	1997-2002 1 or more	Means of dissemination	Notes
Demography							
Population Structure and Growth							
Average annual population change	Tier 1	No	192	192	192	CDB	UNPD estimates and projections.
Population by 5 year age groups and sex	Tier 1	No	173	173	173	CDB	Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions. UNPD estimates and projections. Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Demography/Health							
Fertility/Reproductive Health							
Total fertility rate	Tier 1	No	173	173	173	CDB	UNPD estimates and projections. Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Fertility rate, females aged 15-19	Tier 2	No	173	169	40	CDB	National data
Contraceptive prevalence rate	Tier 1	No	154	154	----	UNPD/WiStat	For 1990 census round
Condom use rate of the contraceptive prevalence rate	Tier 1	No	128	102	8	MDB	Women currently married, percentage contraceptive use (Wistat). Compiled internationally from available national sources.
	---	I 19	51	51	34	MDB	Condom use, aged 15-24 at last higher-risk sex, per cent, men/women (UNAIDS). Compiled internationally from available national sources.
Mortality							
Life expectancy at birth by sex	Tier 1	No	191	191	182	UNPD/WiStat	Data are for 1990-1995, 1995-2000 intervals.
Infant mortality rate by sex	Tier 2	I 14	190	190	190	MDB	UNICEF estimates. Compiled internationally from available national sources.
			173	173	173	CDB	UNPD estimates and projections.
Under 5 mortality by sex	Tier 1	I 13	190	190	190	MDB	UNICEF estimates. Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Malaria mortality rate	Tier 2	I 21	188	188	188	MDB	Compiled internationally from available national sources. Malaria death rate per 100,000, ages 0-4 (WHO); and Malaria death rate per 100,000, all ages (WHO).
Maternal mortality ratio	Tier 2	I 16	171	171	0	MDB	Estimated internationally from available national sources.
Tuberculosis mortality rate	---	I 23	188	188	188	MDB	WHO, UNICEF and UNFPA. Estimated internationally from available national sources. Tuberculosis death rate per 100,000 (WHO). Estimated internationally from available national sources.
Health and nutrition							
Health status and health behaviour							
HIV/AIDS prevalence rate, ages 15-24, by sex	Tier 1	I 18	120	120	120	MDB	High and low estimates by sex (UNAIDS)
			16	16	16	MDB	"pregnant women" aged 15-19/20-24, inside/outside major urban areas (UNAIDS).
Malaria prevalence	---	I 21	108	107	104	MDB	notified cases per 100,000 population (WHO)
Proportion of population in malaria risk areas using effective malaria prevention measures	---	I 22	32	32	32	MDB	Malaria treatment, perc. of pop. <5 with fever being treated with anti-malarial drugs (UNICEF). Estimated internationally from available national sources.
Proportion of population in malaria risk areas using effective malaria treatment measures	---	I 22	32	32	32	MDB	Malaria prevention, use of insecticide-treated bed nets in population <5, per cent (UNICEF). Estimated internationally from available national sources.
Tuberculosis prevalence	---	I 23	188	188	188	MDB	WHO. Estimated internationally from available national sources.
Access to health care							
Proportion of births attended by skilled trained health personnel	Tier 1	I 17	154	154	154	MDB	UNICEF estimates. Estimated internationally from available national sources.
Access to essential drugs, percentage of population	---	I 46	177	177	177	MDB	WHO estimates. Compiled internationally from national "observers" estimates.
Proportion of tuberculosis cases detected and cured under DOTS	---	I 24	132	132	132	MDB	WHO estimates. Estimated internationally from available national sources.
Nutritional status/healthy weight							
Proportion of children under 5 suffering from malnutrition	Tier 1	I 4	132	132	132	MDB	UNICEF estimates. Estimated internationally from available national sources.
Proportion of population undernourished	Tier 2	I 5	123	123	123	MDB/FAO	FAO. Estimates based on food balance sheets. National data may differ due to gaps in available time series and differing concepts and definitions.
Prevention/immunization/public health measures							
Proportion of children under 1 immunized against measles	Tier 1	I 15	172	172	172	MDB	UNICEF estimates. Compiled internationally from national "observers" estimates.
Proportion of children under 1 immunized against DPT	Tier 1	No	178	178	178	WDI 2002	World Bank estimates. Compiled internationally from national "observers" estimates.
Proportion of population with access to safe drinking water	Tier 1	I 30	146	146	145	MDB	Total/urban/rural; WHO-UNICEF; "improved drinking water sources". Estimated internationally from available national sources.
Proportion of population with access to sanitary means of excreta disposal	Tier 1	I 31	139	139	138	MDB	Total/urban/rural; WHO-UNICEF; "improved sanitary means of excreta disposal". Estimated internationally from available national sources.
Other							
Number of children orphaned by HIV/AIDS	---	I 20	73	73	73	MDB	AIDS orphans, cumulative (UNAIDS). Estimated internationally from available national sources.
Environment and Energy							
Atmosphere							
Emissions of greenhouse gases (expressed in metric tons of CO2 equivalents)	Tier 1	Yes	185	185	175	MDB	UNFCCC (CDIAC for CO2 only); "metric tons of CO2". Based on modeling techniques and emission coefficients.
Ambient concentration of pollutants in urban areas	Tier 2	No	52	0	----	WHO AMIS	Selected pollutants, urban areas with monitoring stations, data availability depends on the pollutants; also: UNSD Environment Statistics Database forthcoming. Compiled internationally from national reports.
Consumption of ozone-depleting substances (tons, expressed in CFC-11 equivalents)	Tier 2	I 28	150	150	150	MDB	UNEP-Ozone Secretariat. Compiled internationally from national reports and other estimates.
Proportion of population using solid fuels	---	I 29	0	0	0	MDB	WHO estimates. Estimated internationally from available national sources.
Land							
Forest area as per cent of land area (and trend over time)	Tier 1	I 25	180	180	180	MDB	FAO estimates. Estimated internationally from available national sources.
Fertilizer use in agriculture per unit of agricultural land area	Tier 2	No	171	169	166	CDB	
Use of pesticides per unit of agricultural land area	Tier 2	No	133	133	74	FAO website	Estimated internationally from available national sources.
Proportion of land affected by desertification	Tier 2	No	---	---	---	---	--- Currently no global data dissemination ---
Oceans, seas and coasts							
Algae concentration in coastal waters	Tier 2	No	---	---	---	---	--- Currently no global data dissemination ---
Freshwater							

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Domain/Subdomain/Indicator	FoC	MDG	Any year	1990-2002 1 or more	1997-2002 1 or more	Means of dissemination	Notes
Annual withdrawal of ground and surface water as % of total renewable water	Tier 1	No	?	?	?		FAO (further research necessary); UNSD Environment Statistics Database forthcoming.
Biochemical oxygen demand in water bodies	Tier 2	No	?	?	?		UNEP/GEMS Water. UNSD Environment Statistics Database forthcoming
Biodiversity							
Protected area as per cent of total area	Tier 1	I 26	173	173	173	MDB	UNSD calculated from UNEP. Estimated internationally from available national sources.
Consumption and production patterns							
Energy use per unit of GDP	Tier 1	I 27	120	120	120	MDB	Energy use (Kg oil equivalent) per \$1000 (PPP) GDP (WB). Estimated internationally from available national sources.
Share of consumption of renewable energy sources	Tier 2	No	?	?	?		Further research necessary.
Generation of hazardous and radioactive wastes	Tier 1	No	?	?	?		Basel Convention (National reports). UNSD Environment statistics database forthcoming.
Intensity of energy use by manufacturing and commercial/services	Tier 2	No	?	?	?		Further research necessary.
Intensity of energy use in the residential sector	Tier 2	No	?	?	?		Further research necessary.
Intensity of energy use in the in transportation	Tier 2	No	?	?	?		Further research necessary.
Waste treatment (Waste Recycling and Reuse)	Tier 2	No	---	---	---		UNSD Environment Statistics Database forthcoming.
Total generation of industrial and municipal solid waste per capita per	Tier 2	No	---	---	---		UNSD Environment Statistics Database forthcoming.
Economics and poverty							
Economic resources							
Real GDP per capita (US\$)	Tier 1	No	191	190	190	CDB	UNSD estimates. Based on modeling techniques and various exchange rate assumptions.
Real GDP (in PPP terms)	Tier 1	No	163	163	163	CDB	WB estimates. Indicator is "GDP per capita (in PPPs)". Based on modeling techniques and various exchange rate assumptions.
Distribution/inequality							
Gini-Coefficient of (disposable) income distribution	Tier 1	No	117	113	54	WDI 2002	
Poverty							
Proportion of population below US\$1 a day	Tier 1	I 1	82	78	36	MDB	WB estimates. Estimated internationally from available national sources.
Poverty gap ratio (at US\$ 1 a day and at US\$2 a day)	Tier 2	I 2	82	78	36	MDB	WB estimates. Estimated internationally from available national sources.
Proportion of population below national poverty line	Tier 1	---	79	72	14	MDB	Total/urban/rural (WB). Compiled internationally from available national sources.
			45	43	7	MDB	Urban. Compiled internationally from available national sources.
			50	48	9	MDB	Rural. Compiled internationally from available national sources.
Lowest quintail's share of total consumption	Tier 2	I 3	116	111	54	MDB	WB estimates. Estimated internationally from available national sources.
Saving and investment							
Investment as a proportion of GDP	Tier 2	No	158	142	41	CDB	Capital formation, gross, national currency, current prices. Compiled internationally from available national sources.
Gross saving as a proportion of GDP	Tier 2	No	?	?	?	?	
International trade and foreign investment							
Trade as proportion of GDP	Tier 1	No	153	137	36	CDB	Imports / Exports goods and services, national currency, current prices (SNA). Compiled internationally from available national sources.
Net external debt as proportion of GDP	Tier 2	No	137	137	137	CDB	Debt stocks, total external, US\$ (World Bank estimates)
International development assistance							
Net official development assistance as a percentage of GNI	Tier 2	I 33	22	22	22	CDB	ODA, net, as percentage of OECD/DAC donors' GNI (OECD); and ODA to LDCs, net, as percentage of OECD/DAC donors' GNI (OECD). Compiled internationally from available national sources.
Particular components of expenditure, income and production							---
Inflation							---
Employment and labour							---
Labour supply							
Labour force participation rate	Tier 1	No	188	168	168	CDB/LABORSTA	Economic activity rate by sex, 13 age groups, 1950-2010 (ILO estimates/projections). Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Employment to population ratio	Tier 2	No	113	?	?	LABORSTA	
Labour utilization							
ILO comparable unemployment rate by sex	Tier 1	No	153/89	89	57	LABORSTA/CDB	ILO. Compiled internationally from available national sources.
Long-term unemployment rate	Tier 2	No	44	44	44	KILM 2002	ILO.
Unemployment rate by educational attainment	Tier 2	No	91	96	70	KILM 2002	ILO.
Youth unemployment rate	Tier 2	I 45	105/89	89	65	LABORSTA/MDB	ILO (male, female, total).
Distribution of labour							
Employment proportions by sector (agriculture/industry/services)	Tier 1	No	110	68	20	CDB	Employment by sex and industry branch, ISIC 2 (ILO). Compiled internationally from available national sources.
			83	43	34	CDB	Employment by sex and industry branch, ISIC 3 (ILO). Compiled internationally from available national sources.
Percentage employed, by status (waged and salaried/self-employed)	Tier 2	No	100	100	63	KILM 2002	ILO.
Informal sector employment as percentage of total employment	Tier 2	No	60	48	18	KILM 2002	ILO. Data limited to (selected) urban areas and partly exclude agriculture.
Labour volume							
Mean annual hours worked per person	Tier 2	No	103	49	34	KILM 2002	ILO. Compiled internationally from available national sources.
Part-time employment as percentage of employment	Tier 2	No	40	40	28	KILM 2002	ILO. Compiled internationally from available national sources.
Cost of labour							
Hourly compensation cost in PPP\$	Tier 2	No	33	28	28	KILM 2002	ILO.
Real manufacturing wage trends (ILO and UNIDO series)	Tier 2	No	129	129	90	KILM 2002	ILO. Rarely broken down by sex.
Gender equality							
Female share of paid unemployment in nonagricultural activities	Tier 1	I 11	111	39	38	MDB	ILO. Compiled internationally from available national sources.
Ratio of average female-to-male wages	Tier 2	No	?	?	?	ILO Yearbook	Indicator not published. Only "wages by economic activity by sex" and "wages in manufacturing".
Value added per person employed in PPP\$	Tier 2	No	100	42	42	KILM 2002	ILO. In 1990 US\$.
Child labour							
Proportion of children ages less than 15 who are working	Tier 1	No	?	?	32	UNICEF website	Further research necessary.
Education							

Annex 1

Domain/Subdomain/Indicator	FoC	MDG	Any year	1990-2002 1 or more	1997-2002 1 or more	Means of dissemination	Notes
Financial resources							
Public current expenditure on primary education (a) as a percentage of GDP; and (b) per pupil as a percentage of GDP per capita	Tier 1	No	143	143	143	UNESCO website	Public expenditure on education as percentage of GNI
Teachers							
Pupil to teacher ratio	Tier 2	No	160 148	160 148	160 148	UNESCO website UNESCO website	In primary education In secondary education
Participation							
Net enrolment ratio in primary education by sex (incl. ratio of girls to boys in primary education)	Tier 1	I 6+9	140	140	123	MDB	Education enrolment ratio, net, primary level, boys/girls/both (UNESCO).
Net enrolment ratio in secondary education by sex (incl. ratio of girls to boys in secondary education)	Tier 1	I 9	183 181	182 178	156 147	MDB MDB	Girls to boys ratio, primary level enrolment (UNESCO). Compiled internationally from available national sources. Girls to boys ratio, secondary level enrolment (UNESCO). Compiled internationally from available national sources.
Ratio of girls to boys in tertiary education	---	I 9	163	148	113	MDB	Girls to boys ratio, tertiary level enrolment (UNESCO). Compiled internationally from available national sources.
Output and efficiency							
Proportion of pupils starting grade 1 reaching grade 5 of primary education	Tier 1	I 7	91	91	0	MDB	Boys/girls/both sexes (UNESCO). Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Average number of years of schooling completed by urban/rural, sex and where possible by income classes	Tier 2	No	?	?	?		
Outcome							
Adult literacy rate, by age and sex	Tier 1	I 8	130	130	130	MDB	Literacy rates, aged 15-24, per cent, men/women/both (UNESCO). Based on modeling techniques. National data may differ due to gaps in available time series and differing concepts and definitions.
Other social indicators							
Crime and justice							
Homicide rate	Tier 2	No	?	104	82	UNODCCP website	UN Survey of Crime Trends and Operations of Criminal Justice Systems; "Total recorded intentional homicide, completed" also data for "attempted", "unintentional" and "with firearms"
Women empowerment and gender equality							
Proportion of seats in national government, incl. Parliament, held by women	Tier 1	I 12	181			MDB	Women in parliamentary seats, per cent (IPU). Compiled internationally from available national sources.
Housing							
Proportion of households with electricity	Tier 1	No	42	40	14	Human Settlements	"Households in housing units by type of lighting"
Number of people per room (excl. kitchen and bathroom)	Tier 2	No	22	13	0	CDB	
Proportion of households with access to secure tenure	---	I 32	0	0	0	MDB	
Access to information technology							
Main telephone lines per 1,000 population	Tier 1	I 47	186	186	186	CDB	ITU. Compiled internationally from available national sources.
Cellular subscribers per 1,000 population	---	I 47	186	176	176	WDI 2002	
Internet subscribers per 1,000 population	Tier 2	I 48	181	181	181	CDB+MDB	"Internet users". ITU estimates. Estimated internationally from available national sources.
Number of PCs per 1,000 population	Tier 2	I 48	150	150	150	CDB+MDB	"PC users". ITU estimates. Estimated internationally from available national sources.

MD Goal 8: Develop a global partnership for development

Official development assistance							
Net ODA, total and to LDCs, as percentage of OECD/DAC donors' gross national income	Tier 2	I 33	22	22	22	MDB	ODA, net, as percentage of OECD/DAC donors' GNI (OECD); and ODA to LDCs, net, as percentage of OECD/DAC donors' GNI (OECD)
Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)	---	I 34	21	21	21	MDB	OECD
Proportion of bilateral ODA of OECD/DAC donors that is untied	---	I 35	21	21	19	MDB	OECD
ODA received in landlocked countries as proportion of their GNIs	---	I 36	29	29	29	MDB	OECD
ODA received in small island developing States as proportion of their GNIs	---	I 37	27	27	27	MDB	OECD
Market access							
Proportion of total developed country imports (by value and excluding arms) from developing countries and from LDCs, admitted free of duties	---	I 38	--- Not applicable at country level ---				
Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries	---	I 39	--- Not applicable at country level ---				
Agricultural support estimate for OECD countries as percentage of their GDP	---	I 40	15	15	15	MDB	OECD
Proportion of ODA provided to help build trade capacity	---	I 41	0	0	0		Will be available in 2003.
Debt sustainability							
Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)	---	I 42		0	0		
Debt relief committed under HIPC initiative, US\$	---	I 43	42	42	42	MDB	IMF
Debt service as a percentage of exports of goods and services	---	I 44	130	128	109	MDB	WB

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Domain/Subdomain/Indicator	FoC	MDG	Any year	1990-2002 1 or more	1997-2002 1 or more	Means of dissemination	Notes
Human Settlements							= Compendium of Human Settlement Statistics 2001
ILO Yearbook							= ILO Yearbook on Labour Statistics
KILM 2002							= Key Indicators of the Labour Market 2001-2002
LABORSTA							= ILO LABORSTA (http://laborsta.ilo.org/)
MDB							= Millennium Indicator Database, UNSD
UNPD							= UN Population Division
WDI 2002							= World Development Indicators, World Bank, 2002
WR 2000-2001							= World Resources 2000-2001 (World Resources Institute)