

# MDG indicators in Latin America and the Caribbean:

A comparison between national and  
international data



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## Impulses for the ECLAC study on MDG indicators (global level)

- **Report of the Friends of the Chair on Millennium Development Goals indicators (December 2005):**
  - Reporting is poor for some indicators, sub-regions and countries
  - More data are available in the countries than suggested by MDG database
  - Metadata falls short of what is desirable
  - Concerns about the use of imputed or significantly adjusted country figures
  - Encourages Regional Commissions to conduct studies of the ability of countries to provide reliable data on MDG indicators

## Data availability on MDG indicators by developing region

Developing regions	% of countries with MDG data available by number of observations	
	1 or more	2 or more
Countries of the Commonwealth of Independent States (CIS)	84%	60%
South-eastern Asia	82%	65%
Southern Asia	81%	65%
Sub-Saharan Africa	80%	61%
Western Asia	73%	58%
<b><i>Latin America and The Caribbean (34 countries)</i></b>	<b>71%</b>	<b>63%</b>
<b>Total developing countries</b>	<b>71%</b>	<b>55%</b>
Northern Africa	71%	58%
Eastern Asia	70%	54%
<b><i>Latin America and The Caribbean (46 countries)</i></b>	<b>67%</b>	<b>52%</b>
Oceania	47%	33%

Note: Excludes indicators 33-44. Source: Own calculations, on the basis of United Nations Statistics Division information.

## Impulses for the ECLAC study on MDG indicators (regional level)

- **Santo Domingo regional workshop (May 2005)** recommends to:
  - Check data published by international agencies
  - Assess MDG data availability in LAC countries
  - Analyze differences between national and international data sources
- **SCA Executive Committee (September 2006)** decided that:
  - at its fourth meeting the Conference should examine MDGs follow up as one of the main substantive issues

## **“Monitoring the MDGs: Opportunities and challenges for National Statistical Systems” (ECLAC, 2005)**

- **Methodology of the study:**
  - Questionnaire answered by LAC NSOs
  - Review of MDG-related documents and databases
- **Opportunities:**
  - Promotion of statistical activities
  - Financial aid for national statistical systems
  - Improvement of technical quality, international comparability and dissemination of statistics
- **Challenges:**
  - Increasing data availability
  - Reducing the time lag between the availability of indicators and their reference date
  - Ensuring the sustainability of data collection processes
  - Improving international comparability
  - Making data more relevant for national policies
  - Securing human and financial resources for MDG monitoring

## **Objectives of the new ECLAC study (2007)**

- Identifying differences between data disseminated by international agencies (“international” data) and Latin American and Caribbean countries (“national” data)
- Validating or discarding working hypotheses on the causes of the differences
- Proposing ways to improve MDGs regional follow-up
- Fostering better coordination between countries and international agencies
- Steering technical assistance

## Scope and limitations of the new ECLAC study (2007)

- Takes into account social and, to a lesser extent, environmental MDG official indicators
  - Indicators 33-44 not included in the study; indicators 25-28 not compared
- Desk study, no field visits to NSOs
- Does not aim at evaluating the capacity of countries to produce MDG indicators, nor data quality; simply compares data series in national MDG reports with those contained in the MDG Indicators database
  - Most national reports contain a self-evaluation of the country's MDG monitoring capacity
- The data collection and systematization process was concluded on October 15, 2006)
- Four-step methodology

## Step 1: Creation of a National MDG reports database covering 34 LAC countries

- ✓ Argentina (2003, 2005)
- ✓ Belize (2005)
- ✓ Bolivia (2001, 2002, 2005)
- ✓ Brazil (2004, 2005)
- ✓ Chile (2005)
- ✓ Colombia (2005)
- ✓ Costa Rica (2004)
- ✓ Cuba (2004, 2005)
- ✓ Ecuador (2004)
- ✓ El Salvador (2004)
- ✓ Guatemala (2002, 2006)
- ✓ Guyana (2003)
- ✓ Haiti (2003)
- ✓ Honduras (2003)
- ✓ Jamaica (2004)
- ✓ Mexico (2005)
- ✓ Nicaragua (2003)
- ✓ Panama (2003, 2005)
- ✓ Paraguay (2003)
- ✓ Peru (2004)
- ✓ Bolivarian Republic of Venezuela (2004)
- ✓ Dominican Republic (2004)
- ✓ Suriname (2005)
- ✓ Uruguay (2003)
- ✓ Eastern Caribbean (10 countries, 2003)



## Step 1: Analysis of data availability (one, two, three or more observations)

Country	MDG indicators													
	1	1a	2	2a	3	4	5	6	7	8	9.1	9.2	9.3	10
Anguilla	-	-	2	-	1	-	-	-	-	-	2	2	-	1
Antigua and Barbuda	-	-	-	-	-	-	-	-	-	1	2	2	-	1
Argentina	3+	3+	-	3+	2	1	-	2	1	2	3+	3+	3+	-
Barbados	-	-	1	-	-	-	-	-	-	2	2	2	2	-
Belize	-	1	-	2	-	2	2	3+	3+	3+	3+	3+	2	3+
Bolivia	-	3+	-	-	2	-	-	3+	-	-	1	1	-	-
Brazil	3+	3+	-	-	3+	1	-	2	1	3++	2	2	2	2
Chile	2	3+	2	-	2	2	2	2	1	2	2	2	2	2
Colombia	3+	3+	3+	-	3+	3+	3+	3+	-	3+	-	-	-	3+
Costa Rica	3+	3+	-	-	3+	1	-	3+	-	2	3+	3+	-	2
Cuba	-	-	-	-	-	1	-	3+	3+	1	3+	3+	3+	-
Dominica	-	-	1	-	1	-	-	-	-	-	2	2	2	-
Ecuador	2	3+	-	-	-	1	-	3+	2	-	3+	3+	3+	1
El Salvador	2	3+	-	2	3+	3+	-	2	2	2	2	2	-	2
Granada	1	-	1	-	1	-	-	-	-	-	2	2	2	1
Guatemala	3+	2	1	-	2	3+	-	3+	3+	3+	3+	3+	-	3+
Guyana	-	2	-	-	-	-	-	1	1	1	2	2	2	-
Haiti	3+	-	-	-	-	1	1	2	2	1	1	1	1	-
Honduras	2	2	-	-	-	2	-	3+	-	3+	3+	3+	-	3+
British Virgin Islands	-	-	1	-	-	-	-	-	-	1	2	2	-	1

## First step: Availability of information by indicator in National MDG reports (goal 1)

- In **goal 1** (Poverty and Hunger), it is possible to evaluate trends (2+ observations) for half (indicator 1) or less than half (indicators 2-5) of countries

Indicator	% countries with data available by number of observations		
	1 or more	2 or more	3 or more
1	59%	50%	32%
1a	59%	56%	38%
2	38%	18%	6%
2a	21%	21%	9%
3	59%	38%	18%
4	62%	44%	21%
5	26%	21%	15%

	Less than 25%
	Between 25% and 49%
	Between 50% and 74%
	75% or more

Note: Data refers to 34 Latin American and Caribbean countries.

## First step: Availability of information by indicator in National MDG reports (goals 2-5)

- Information on indicators in **goals 2** (Education), **3** (Gender equality), **4** (Infant mortality) and **5** (Maternal health) is available in most countries

Goal	Indicator	% countries with data available by number of observations		
		1 or more	2 or more	3 or more
2	6	71%	65%	44%
	7	47%	32%	21%
	8	71%	47%	26%
3	9.1	94%	85%	44%
	9.2	91%	85%	44%
	9.3	59%	53%	24%
	10	68%	41%	24%
	11	71%	56%	29%
4	12	82%	76%	47%
	13	94%	94%	79%
	14	100%	91%	79%
5	15	91%	88%	82%
	16	71%	71%	53%
	17	88%	76%	56%

	Less than 25%
	Between 25% and 49%
	Between 50% and 74%
	75% or more

Note: Data refers to 34 Latin American and Caribbean countries

## First step: Availability of information by indicator in National MDG reports (goals 6-8)

- Most data gaps exist in **goals 6** (HIV/AIDS and other illnesses), **7** (Environment) and **8** (Global partnership for development)

Goal	Indicator	% countries with data available by number of observations		
		1 or more	2 or more	3 or more
6	18	38%	29%	15%
	19	6%	3%	3%
	19a	0%	0%	0%
	19b	3%	0%	0%
	19c	15%	9%	6%
	20	3%	3%	3%
	21	50%	38%	26%
	21a	21%	18%	12%
	22	6%	3%	3%
	23	76%	74%	50%
	23a	38%	26%	21%
	24	56%	47%	32%
7	24a	29%	24%	18%
	25	85%	71%	15%
	26	91%	41%	21%
	27	71%	47%	26%
	28a	85%	68%	21%

Goal	Indicator	% countries with data available by number of observations		
		1 or more	2 or more	3 or more
7	28b	26%	24%	12%
	29	3%	3%	0%
	30	59%	59%	38%
	30i	41%	32%	21%
	30ii	41%	35%	21%
	31	56%	53%	35%
	31i	35%	32%	24%
	31ii	29%	29%	24%
	32	29%	21%	9%
	8	45a	29%	29%
45b		15%	12%	9%
45c		15%	12%	9%
46		9%	3%	0%
47		65%	59%	35%
48		47%	29%	18%
48a	32%	26%	15%	

	Less than 25%
	Between 25% and 49%
	Between 50% and 74%
	75% or more

Note: Data refers to 34 Latin American and Caribbean countries

## First step: Availability of information by country in National MDG reports

- National MDG reports in Latin America and the Caribbean report on less than half of indicators
- Panama (1 and 2 or more observations) and Jamaica (3 or more) are the countries with more information on MDG indicators
- Smaller Caribbean countries report on less than 40% of MDG indicators, and some countries did not prepare a National MDG report

Less than 25%
Between 25% and 49%
Between 50% and 74%
75% or more

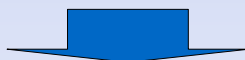
Latin America Country	% countries with data available by number of observations		
	1 or more	2 or more	3 or more
Argentina	65%	59%	48%
Bolivia	44%	33%	28%
Brazil	67%	52%	33%
Chile	67%	61%	7%
Colombia	50%	46%	37%
Costa Rica	54%	52%	46%
Cuba	63%	54%	37%
Ecuador	54%	35%	19%
El Salvador	59%	56%	26%
Guatemala	59%	48%	35%
Haiti	41%	19%	2%
Honduras	46%	41%	22%
Mexico	59%	59%	56%
Nicaragua	31%	20%	9%
Panama	83%	76%	46%
Paraguay	61%	56%	56%
Peru	57%	52%	20%
Dominican Republic	61%	57%	30%
Uruguay	57%	39%	37%
Venezuela (Bolivarian Rep. of)	48%	46%	41%

Caribbean Country	% countries with data available by number of observations		
	1 or more	2 or more	3 or more
Anguilla	20%	13%	6%
Antigua and Barbuda	31%	22%	11%
Barbados	35%	28%	9%
Belize	76%	72%	46%
Dominica	35%	26%	11%
Grenada	39%	24%	11%
Guyana	26%	19%	6%
British Virgin Islands	20%	15%	7%
Jamaica	74%	72%	65%
Montserrat	22%	13%	4%
San Vincent and the Grenadines	39%	24%	11%
Saint Lucia	39%	26%	9%
Saint Kitts and Nevis	39%	24%	9%
Suriname	30%	26%	13%
<b>Latin America</b>	<b>56%</b>	<b>48%</b>	<b>32%</b>
<b>Caribbean</b>	<b>38%</b>	<b>29%</b>	<b>16%</b>
<b>Latin America and the Caribbean</b>	<b>49%</b>	<b>40%</b>	<b>25%</b>

Note: Excludes indicators 33-44.




## Step 1: Identification of weaknesses of National MDG reports

- Absence of metadata
  - Lack of clarity on data sources, methods of computation and, sometimes, even on reference year
- Absence of statistical annexes
- Some reports are weak in their presentation of data
  - Data often presented in the text, rather than in tables or charts
  - Lack of data series







Need to increase NSOs participation in the drafting of national MDG reports

## Step 2: Selection of data on LAC countries from MDG Indicators database (1)

- Data series, as well as information on data types, downloaded from UNSD database
- Seven data types:
  1. **Country data** 
    - The figure is the one produced and disseminated by the country (including data adjusted by the country to meet international standards)
  2. **Country adjusted data** 
    - The figure is the one produced and provided by the country, but adjusted by the international agency for international comparability – that is to comply with internationally agreed standards, definitions and classifications
  3. **Estimated data** 
    - The figure is estimated by the international agency, when corresponding country data on a specific year or set of years are not available, or when multiple sources exist, or there are issues of data quality. Estimates are based on national data, such as surveys or administrative records, or other sources but on the same variable being estimated

## Step 2: Selection of data on LAC countries from MDG Indicators database (2)

4. **Modeled data** 
  - The figure is modeled by the agency when there is a complete lack of data on the variable being estimated. The model is based on a set of covariates—other variables for which data are available and that can explain the phenomenon
5. **Global monitoring data** 
  - The figure is regularly produced by the designated agency for the global monitoring, based on country data. However, there is no corresponding figure at the country level, because the indicator is defined for international monitoring only
6. **Not relevant** 
  - The figure is not available because the indicator-as defined for the global monitoring-does not apply to the circumstances of the specific country, and therefore is not reported
7. **Not available** 



## Step 2: The MDG Indicators database provides more information than national MDG reports

### MDG Indicators database

- Information on **46** Latin American and Caribbean countries and territories
- % MDG data series available by number of observations (34 countries):
  - **71%** (1+ observations)
  - **63%** (2+ observations)
  - **50%** (3+ observations)

### National MDG reports

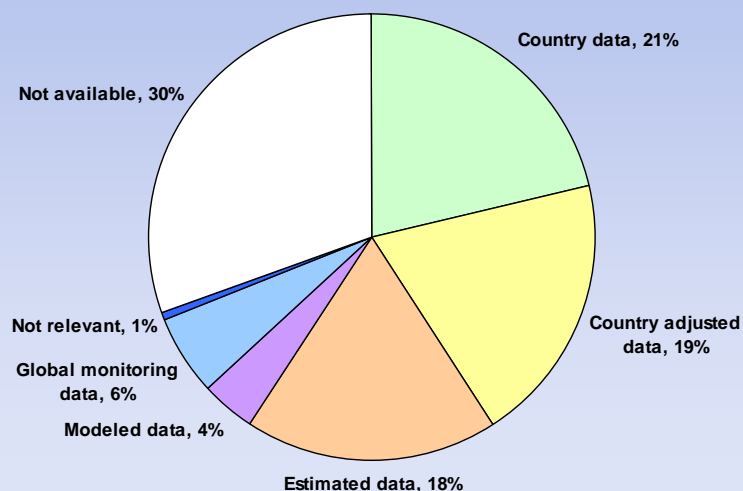
- Information on **34** Latin American and Caribbean countries and territories
- % MDG data series available by number of observations (34 countries):
  - **49%** (1+ observations)
  - **40%** (2+ observations)
  - **25%** (3+ observations)

## Countries may have more statistical information on the MDGs than what is presented in National reports

MEXICO: MDG INDICATORS IN THE UNSD MDG DATA BASE, NATIONAL MDG REPORT AND MDG MEXICO INFORMATION SYSTEM, BY NUMBER OF OBSERVATIONS, 1986-2006 PERIOD

Indicator	United Nations	National MDG report	MDG Mexico information system	Indicator	United Nations	National MDG report	MDG Mexico information system
1	7	7	9	21	0	4	15
1a	7	0	0	21a	0	0	0
2	7	7	9	22	0	3	3
2a	5	0	0	23	6	14	15
3	4	7	9	23a	6	14	15
4	3	2	2	24	8	0	0
5	6	4	8	24a	8	0	0
6	7	4	16	25	3	2	2
7	0	0	16	26	16	4	16
8	2	4	16	27	14	4	15
9.1	7	4	16	28a	14	3	7
9.2	7	4	16	28b	14	0	0
9.3	7	4	16	29	0	0	4
10	2	4	16	30	2	4	16
11	15	4	14	30i	2	0	0
12	11	12	21	30ii	2	0	0
13	4	4	15	31	2	4	4
14	4	4	15	31i	2	0	0
15	15	11	14	31ii	2	0	0
16	3	4	15	32	2	0	0
17	1	8	14	45a	14	4	12
18	0	0	2	45b	14	0	0
19	2	0	14	45c	14	0	0
19a	0	0	0	46	0	0	0
19b	0	0	0	47	15	4	17
19c	2	0	0	48	15	3	7
20	0	0	15	48a	15	3	11
Indicators available by number of observations:				1 or more	44	32	37
				%	81%	59%	69%
				2 or more	43	32	37
				%	80%	59%	69%
				3 or more	32	30	34
				%	59%	56%	63%
Average of observations in the 1986-2006 period:					5.9	3.1	8.2

## Step 2: Most available LAC series in the MDG Indicators database are classified as “country data”



Note: Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Step 3: Comparison between national and international data series

- Calculation of the **absolute difference between national and international data**, when they coincide by indicator, country and year:  
Absolute difference = (Value in national MDG report – Value in MDG Indicators database)
- Absolute difference transformed into a **percentage difference**:  
Percentage difference = [(Absolute difference) / (Value in MDG Indicators database)] x 100
- **If the percentage difference is > 5%, the value in the national MDG report is considered different from the value in the MDG Indicators database**
- We considered national MDG reports and MDG indicators database **series** to be the same only if all observations were equal

### Step 3: Example of a comparison between national and international data series

NATIONAL MDG REPORTS  
Indicator 14 Infant mortality rate per 1,000 live births

Infant mortality	ECLAC region	Period											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Anguilla	C												
Antigua and Barbuda	C					20.6						18 / Es	
Netherlands Antilles	C												
Argentina	AL					25.6	24.7	23.9	22.9	22	22.2	20.9	
						26 / Es					23 / Es		
						-0.4					-0.8		
						1.5%					3.5%		
Bahamas	C					24 / Es					20 / Es		
Barbados	C					14.5					14 / Es		
						14 / Es							
						0.5							
						3.6%							
Belize	C					10.6					36 / Es		
						39 / Es							
						-28.4							
						72.8%							

### Step 4: Construction of a matrix to compare national and international data series

Data availability in National MDG reports/ Comparison	Country data	Country adjusted data	Estimated data	Modeled data	Global monitoring data	Non-relevant data	Not available	Total
Available / Same data	4,0%	0,6%	4,1%	0,9%	0,4%	0,0%	0,0%	10%
Available / Different or non-comparable data	8,0%	9,3%	8,1%	2,2%	2,5%	0,3%	6,1%	37%
Not available	9,3%	9,6%	6,1%	0,9%	2,9%	0,3%	24,4%	53%
<b>Total</b>	<b>21%</b>	<b>19%</b>	<b>18%</b>	<b>4%</b>	<b>6%</b>	<b>1%</b>	<b>31%</b>	<b>N=1598</b> (34 countries x 47 Indicators)

Note: Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Step 4: Identification of incoherent situations through the matrix (1)

Data availability in National MDG reports/ Comparison	MDG data types						
	Country data	Country adjusted data	Estimated data	Modeled data	Global monitoring data	Non-relevant data	Not available
Available / Same data							
Available / Different or non-comparable data	<p><b>6% of the cases</b></p> <ul style="list-style-type: none"> <li>• Did the country adopt data calculated by an international agency?</li> <li>• In the case of estimated data, did the international agency encounter several national data sources and/or low-quality data sources?</li> </ul>						
Not available							



**Note:** Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Step 4: Identification of incoherent situations through the matrix (2)

Data availability in National MDG reports/ Comparison	MDG data types							
	Country data	Country adjusted data	Estimated data	Modeled data	Global monitoring data	Non-relevant data	Not available	
Available / Same data								
Available / Different or non-comparable data		<p><b>8% of the cases</b></p> <ul style="list-style-type: none"> <li>• Were different data sources used?</li> <li>• Different definitions of the indicators?</li> </ul>						
Not available								

**Note:** Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Step 4: Identification of incoherent situations through the matrix (3)



Data availability in National MDG reports/ Comparison	MDG data types						
	Country data	Country adjusted data	Estimated data	Modeled data	Global monitoring data	Non-relevant data	Not available
Available / Same data							
Available / Different or non-comparable data							
Not available							

**6% of the cases**

- Why was data considered non relevant for the country?
- Why weren't national data included in the international agency data series?

**Note:** Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Step 4: Identification of incoherent situations through the matrix (4)

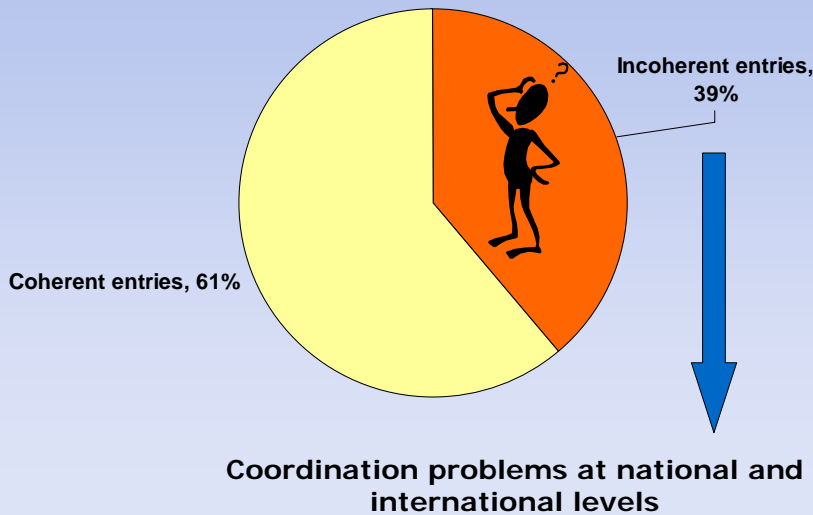
Data availability in National MDG reports/ Comparison	MDG data types						
	Country data	Country adjusted data	Estimated data	Modeled data	Global monitoring data	Non-relevant data	Not available
Available / Same data							
Available / Different or non-comparable data							
Not available							

**19% of the cases**

- Why didn't the national MDG report consider existing national data?
- Are there coordination problems within the National Statistical System? Was there a weak participation of the NSO or of a sectoral ministry in the preparation of the national MDG report?

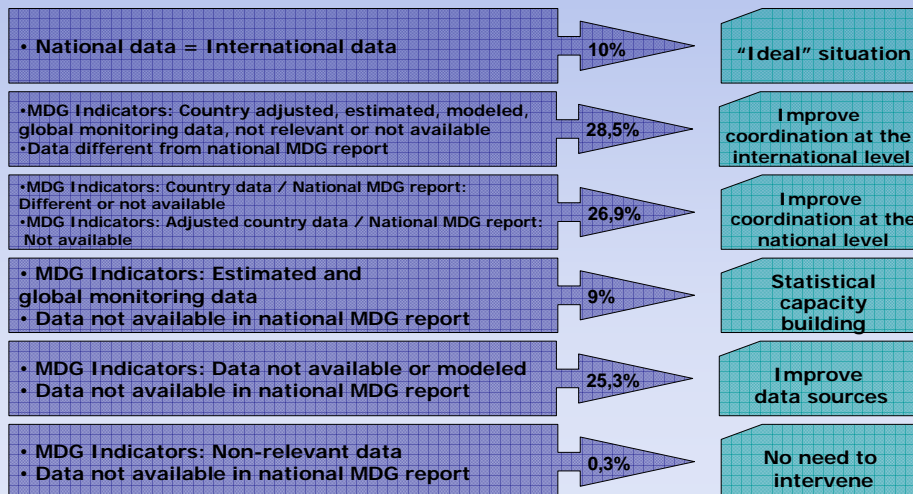
**Note:** Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## Situations which do not look coherent point to coordination problems



Note: Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## How do we get to an adequate integration of country data into international databases?



Note: Data refers to 34 Latin American and Caribbean countries. Excludes indicators 25-28 and 33-44.

## **What are the causes of differences between national and international data series?**

- Country adjusted, estimated, modeled and global monitoring data
- Different definitions of indicators
- Different data sources
- Different observation years
- Different population data in the denominator of indicators?
- Other causes?

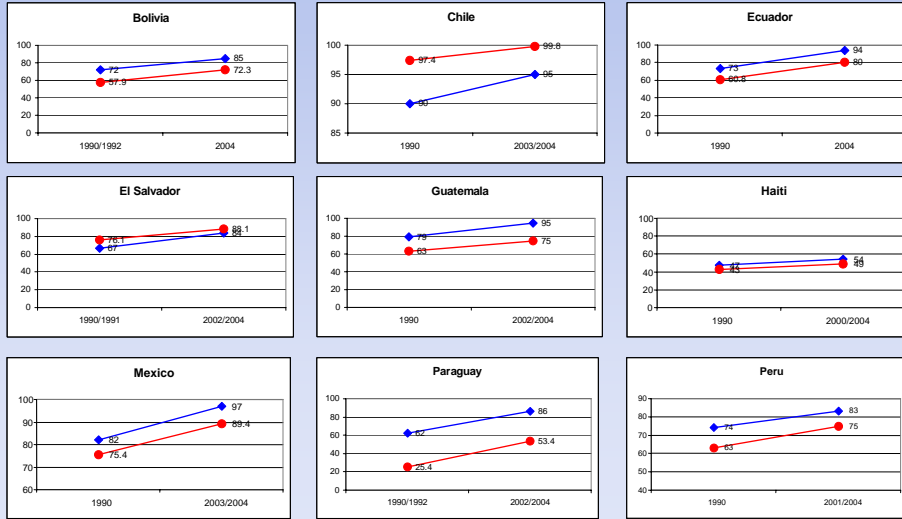
## **Differences between data series: Comments**

- The real problem relates to differences with respect to official MDG indicators
- Differences are justified when using proxy or additional indicators
- Despite differences in absolute terms, national and international data generally give similar results in terms of trends (i.e. same direction of change)

## Even though data are different, trends are often similar

Proportion of population with sustainable access to an improved water source, 1990/92-2001/04

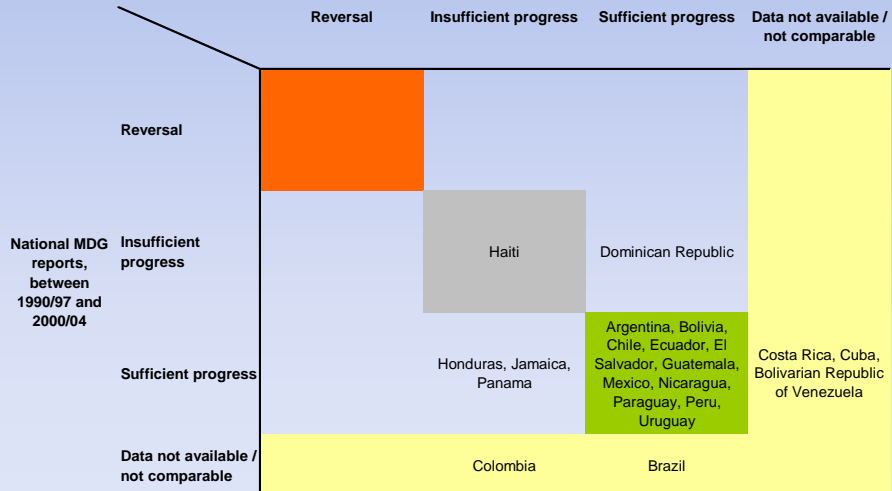
Blue line : International data  
Red line : National data



## ...and generally the evaluation of progress towards MDG targets is not too different

Proportion of population with sustainable access to an improved water source, national total

MDG Indicators database, between 1990 and 2004





## How can coordination between countries and international agencies be improved?

- International agencies can improve coordination and avoid duplication of efforts in the collection of national data
  - Examples of good practices at the regional level: Inter-agency MDG report coordinated by ECLAC; agreement with UNESCO on education indicators for ECLAC's Statistical Yearbook
- Countries could place more emphasis on the timely and consistent supply of data to international agencies
  - Different ministries often have different data: for example, the Ministry of Education could provide data which are different from that provided by the NSO

## Some final thoughts

- **Difficult to standardize all measurements; there is room, however, to improve data harmonization**
  - Example: Compendium of best practices in poverty measurement (Rio Group)
- **Need to improve the transparency and detail of metadata, both at the national and international levels**
  - MDG Indicators database now offers a section on metadata. However, more detailed information would be desirable, for instance on data sources used in each country
- **Support the strengthening of data sources in developing countries (censuses, household surveys and administrative records)**
- **Next steps for research: Detailed analysis of the causes of the differences between national and international MDG data**

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Social Development Division  
ECLAC

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