



II Forum for Asia/Pacific Statisticians (APEX 2),
21-22 September 2006, Daejeon
Session 2: Regional statistics

Towards international comparison of regional (intra-country) disparities in Asia and the Pacific

Pietro Gennari,
Statistics Division, UNESCAP, Bangkok



Importance of regional data

- Indicators based on national averages may mask large inequality within countries. Systematic analysis by different subgroups of the overall population would contribute to illuminate these issues
- Regional data is only one of the many dimensions in which national averages can be disaggregated, but an important one
- Different regions have different natural resources, quality of infrastructure and overall level of development



Importance of regional data

- Regional disparities appears to be persistent and even increasing over time, as economic growth seems driven by a small number of regional poles in which are concentrated the firms with the highest productivity
- Large and persistent regional disparities can cause the failure of macroeconomic policies.
- Growing demand for statistical indicators at the sub-national level to guide territorial policies aiming at reducing structural disparities and targeting disadvantaged groups of the population

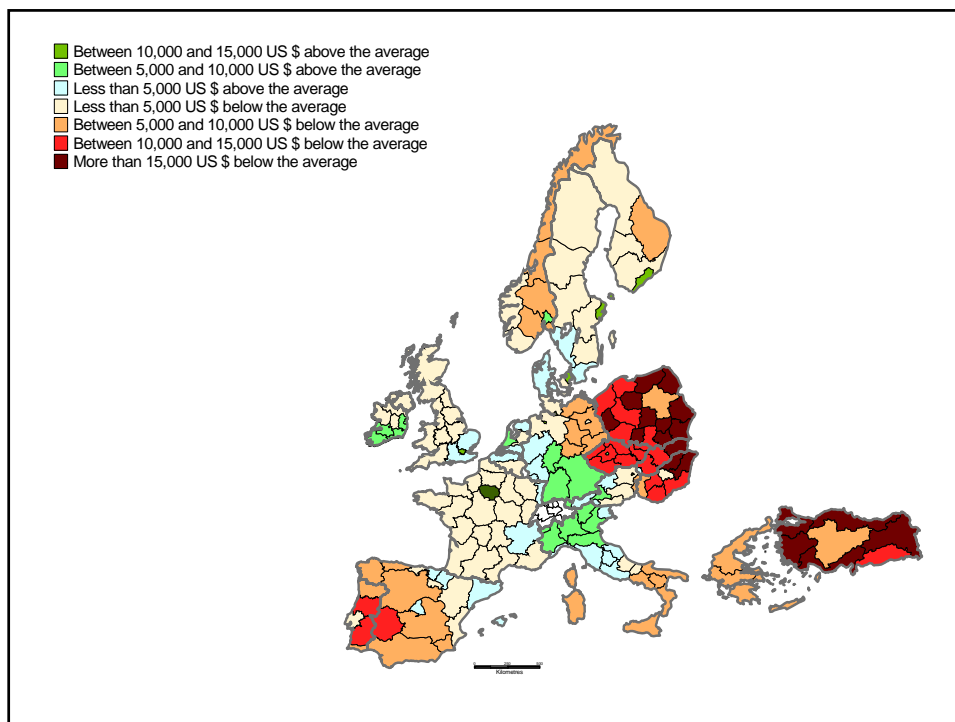
3





Importance of compiling regional data at the international level

- Comparability of results between countries: all countries analyze disparities using the same indicators and the same methodology
- Setting the “best performers” in terms of reduction of disparities as a benchmark for the other countries
- Extent of disparities as an additional criteria for the allocation of funds by international donors
- Data preparedness in case of natural disasters

4




 United Nations Economic and Social Commission for Asia and the Pacific
 
 Statistics Division

**Why no agency in A-P is working on regional data?
 Who should take the lead?**

- No international agency is regularly collecting regional data from the A-P countries. Yet, regional monitoring in A-P is needed on a more frequent basis as here economic and population growth are more rapid
- Policy issues: many countries don't like to be internationally "monitored"
- Comparability issues
- Availability/dissemination issues

6

Challenges in comparing different regions

1. No standard classification of different levels of territorial disaggregation
2. Size of the regions varies greatly by area and population
3. Difficult to compare regions of different typology (urban/rural)
4. Administrative boundaries may not reflect geographic concentration of economic activities or natural resources
5. Administrative boundaries can change over time

7

Alternative classifications of regions

Administrative based:

- Eurostat = 5 territorial levels (Nomenclature of Territorial Units for Statistics)
- OECD = 3 territorial levels (country level, 300 macro regions and 2300 micro regions)
- OECD = each region is further classified in predominantly urban, predominantly rural, intermediate, on the basis of the population density

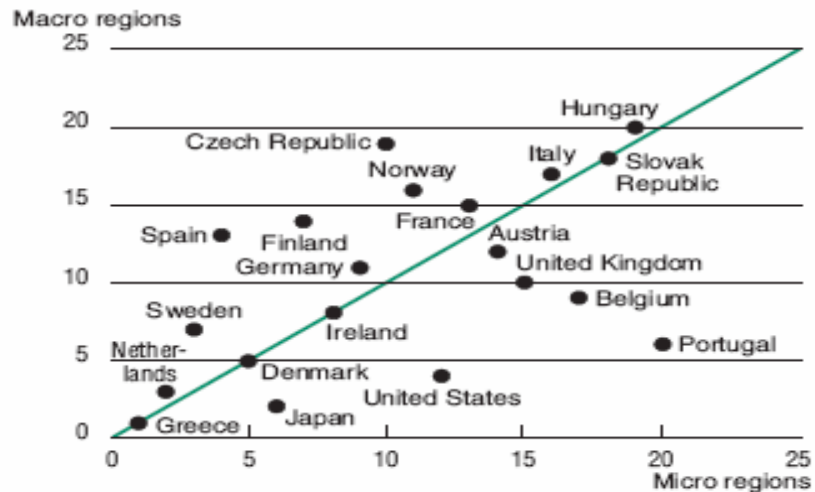
Functional classifications:

- Travel-to-work areas (UK)
- Economic areas (USA)

8

Impact of level of disaggregation on disparities

Chart 2. Ranking of OECD countries based on regional disparities (weighted by population): macro and micro regions; 2000



Source: OECD Territorial Database.



United Nations Economic and Social Commission
for Asia and the Pacific

Statistics Division

Challenges in producing regional indicators in A-P

1. Bad quality of administrative sources (e.g. vital registration and health statistics)
2. Limited resources to expand the sample size of the surveys (other priorities) and publish reliable data at a more disaggregated territorial level
3. Inconsistencies between national and sub-national data for the use of different data sources
4. Technical capacity in using small area estimation methods
5. Data produced are often not disseminated

10



Regional data for which indicators?

1. Agricultural Statistics
 2. Demographic Statistics
 3. Economic Accounts
 4. Education
 5. Labour Market Statistics
 6. Migration Statistics
 7. Science and Technology (R&D, Patents)
 8. Structural Business Statistics
 9. Health Statistics
 10. Tourism Statistics
 11. Transport and Energy Statistics
 12. Environment Statistics
- +
MDG indicators

11



At which level of territorial disaggregation?

1. In principle, the bigger the country the more detailed should be the territorial disaggregation
2. Is it feasible? What is it already available at country level?
3. Should ESCAP launch a survey of country practices?
4. Is it useful to compile information on regional data availability on a regular basis?

12



How should the regional data collection be organized?

1. Electronic questionnaire
2. Countries to upload directly their own data on the ESCAP website (web questionnaire)?
3. Long term solution = SDMX data exchange, assisting countries to adopt, for example, DevInfo

13



How to improve the capacity of A-P countries to produce/disseminate regional data?

1. Project on small area estimation?
2. Project on improving administrative sources for the production of MDG indicators?
3. Regional Census Programme (content of the Census questionnaire)
 - WB/ESCAP initiative to assist countries in the dissemination of survey micro data

14



ESCAP pilot data collection initiative

- Objective = **to build a regional database of sub-national MDG data**
- All countries analyze disparities using the same indicators and the same methodology
- Comparability of results between countries

15

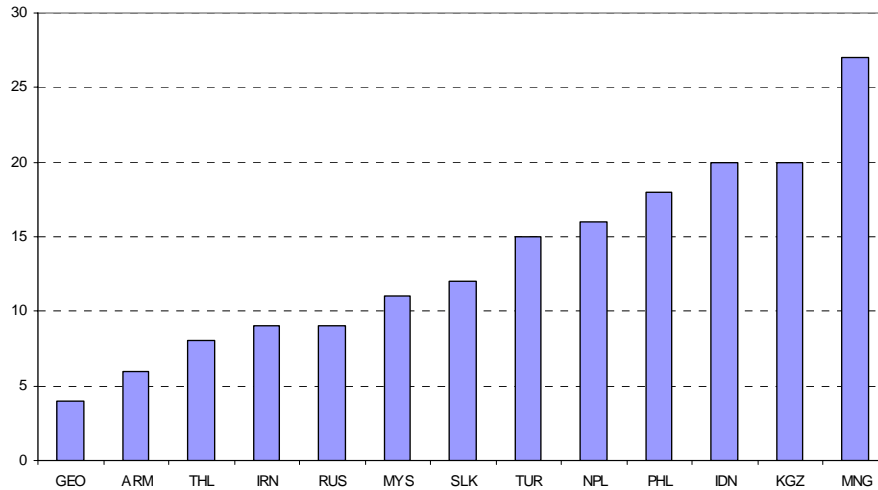


Results of the data-collection

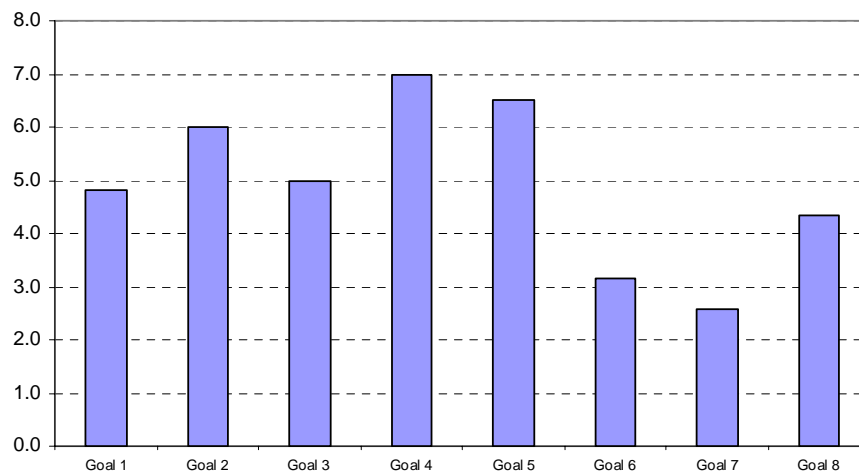
- 28 countries replied so far (51%)
- 13 countries providing regional disaggregation for some MDG indicators (no country for all MDGs)
- Mongolia is the country providing the most complete set of information
- Few indicators for countries with a decentralized statistical system = coordination problems
- Highest nr of countries providing regionally disaggregated data for indicators of goal 4 and 5, and to a lower extent goal 6

16

Nr. of indicators with regional data by country

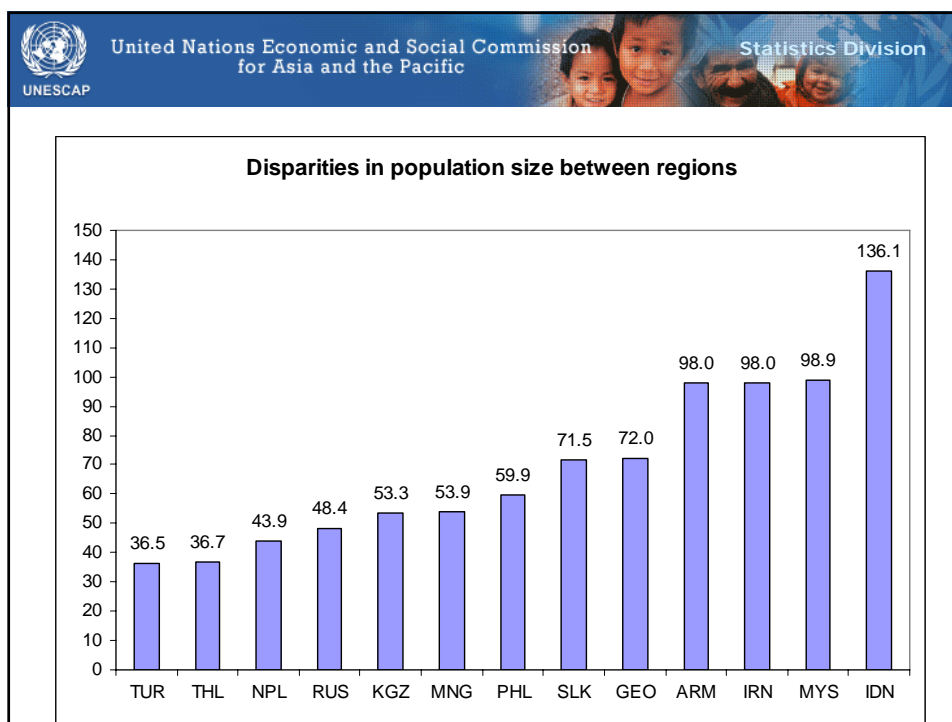


Avg nr. of countries with regional data for each goal



Disparities in population size between regions

Country	Population	Density	N. of regions	Regional population		Regional density		CV
				max	min	max	min	
Turkey	76,798,278	88.9	7	17,351,417	6,147,603	239.1	42.3	36.5
Thailand	60,617,200	118.1	4	20,759,900	8,067,800	196.5	67.0	36.7
Nepal	41,290,585	150.2	5	8,031,629	2,191,330	293.0	71.1	43.9
Russian Federation	146,149,576	7.7	7	38,033,297	6,673,066	61.2	1.0	48.4
Kyrgyzstan	4,822,900	24.1	8	1,176,000	199,900	7,623.0	5.5	53.3
Mongolia	2,373,500	1.5	5	760,100	161,200	161.7	0.5	53.9
Philippines	76,464,888	254.6	15	11,793,655	1,365,220	15,617.0	95.0	59.9
Sri Lanka	18,732,255	290.9	25	2,234,289	121,667	3,480.2	55.5	71.5
Georgia	4,401,300	71.6	11	1,103,300	49,100	3,152.3	9.9	72.0
Armenia	3,002,594	101.0	11	1,091,235	53,230	5,196.4	22.1	98.0
Iran	68,467,413	42.0	30	12,150,742	510,218	645.8	6.0	98.0
Malaysia	23,274,700	70.6	3	18,599,700	2,071,500	141.1	17.0	98.9
Indonesia	189,492,632	126.1	26	35,723,470	830,200	12,628.1	11.6	136.1
Maximum	189,492,632	290.9		38,033,297		15,617.0		
Minimum	2,373,500	1.5			49,100		0.5	
Ratios max/min	0.7	0.7		774.6		31,234.0		

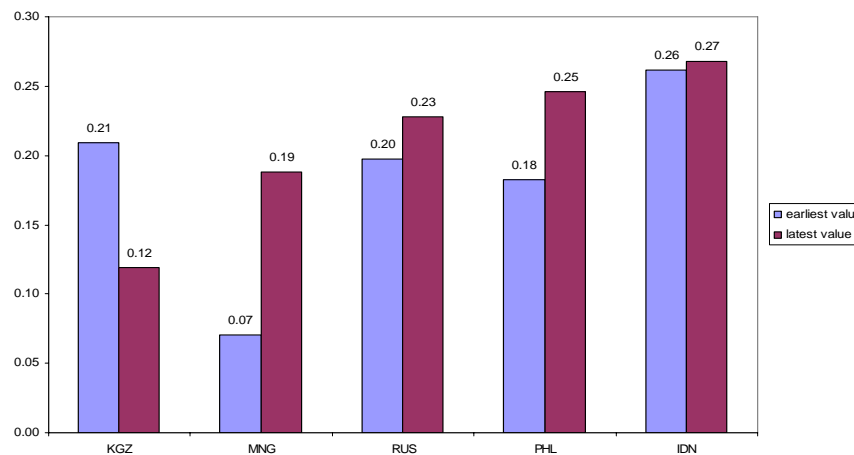


Main limitations of the analysis

- Data provided at different level of territorial disaggregation (impact on CV)
- Not all countries providing for two or more data points in order to analyze evolution of disparities
- Different baseline years to assess evolution of disparities
- Inconsistencies between national and sub-national data
- Very limited analysis of disparities within countries: time constraints to validate and analyze country data
- Example of analysis of disparities between countries = **children mortality rate**

21

Disparities between regions for children mortality rate
Comparison between earliest and latest value. Weighted Coefficient of Variation.



Disparities between-regions in some A-P countries for children mortality

- Existence of disparities in all the selected countries, but not dramatic
- Disparities are bigger in some countries like Indonesia or the Philippines, while they are smaller in Kyrgyzstan or Mongolia
- From the earliest (around 1990) to the latest period with available data (around 2005) increase of disparities in every country, except Kyrgyzstan

23

Main issues

1. Useful to compile information on regions and data availability on a regular basis?
2. At which level of territorial disaggregation?
3. Focusing on which indicators?
4. Should these data be publicly accessible?
5. Which agency should take the lead?
6. Invite countries to upload directly their own data?
7. How to improve the capacity of A-P countries to produce/disseminate regional data?

24