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# Monitoring and Evaluation of Teachers and Teaching : Global and National Perspectives

United Nations Educational, Scientific and Cultural Organization

UNESCO INSTITUTE for STATISTICS

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# Outline of the presentation

- **News on teacher issues -- Global and National**
- **Current figures of primary teachers and additional requirement for teachers by 2015**
- **Availability of teachers data at international level**
- **Sources of teacher data and analytical frameworks**
- **Limitations of existing teacher data and analysis – *The Indian Context.***
- **Next Steps – Recommendations**

# What makes world news on teachers ?

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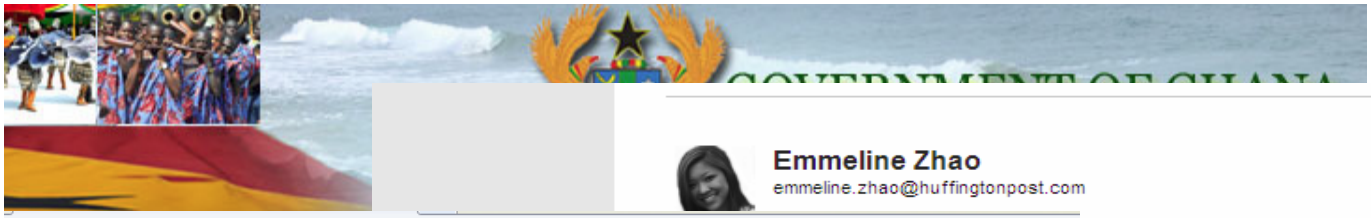


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25 April 2012 Last updated at 15:04 GMT

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# Teacher numbers fall by 10,000 in a year in England

By Angela Harrison
Education correspondent, BBC News

**The number of teachers in England's state school system fell by 10,000 in the year to November, new figures show.**

Government data on the school workforce shows teacher numbers have dropped for the first time in years.

Ministers say three quarters of the reduction is among teachers employed directly by local councils - for example as tutors or schools advisors.

Teacher numbers had been rising

The head teachers' body ASCL says budget pressure means heads are making difficult decisions to cut staff.

The drop of 10,000 is 2% of the full-time equivalent teaching posts in

Related Stories

Half secondaries to be academies

Q&A: Academies



in California.

"The results are shocking," said Cynthia Brown, who oversees education policy at the

# News on Teachers in India

# Over 72,000 primary teachers to be recruited in UP

PTI Sep 14, 2011, 09.34pm IST



**Tags:** Reliance Power Limited | Power Trading Corporation | Jal Vidyut Nigam Limited | Energy Task Force

LUCKNOW: In a bid to ensure availability of teachers in primary schools in Uttar Pradesh, the state government today announced its decision to fill over 72,000 vacant posts.

A proposal to start recruitment for 72,825 vacant post of teachers was approved by the state cabinet in its meeting chaired by Chief Minister Mayawati, an official spokesman said.

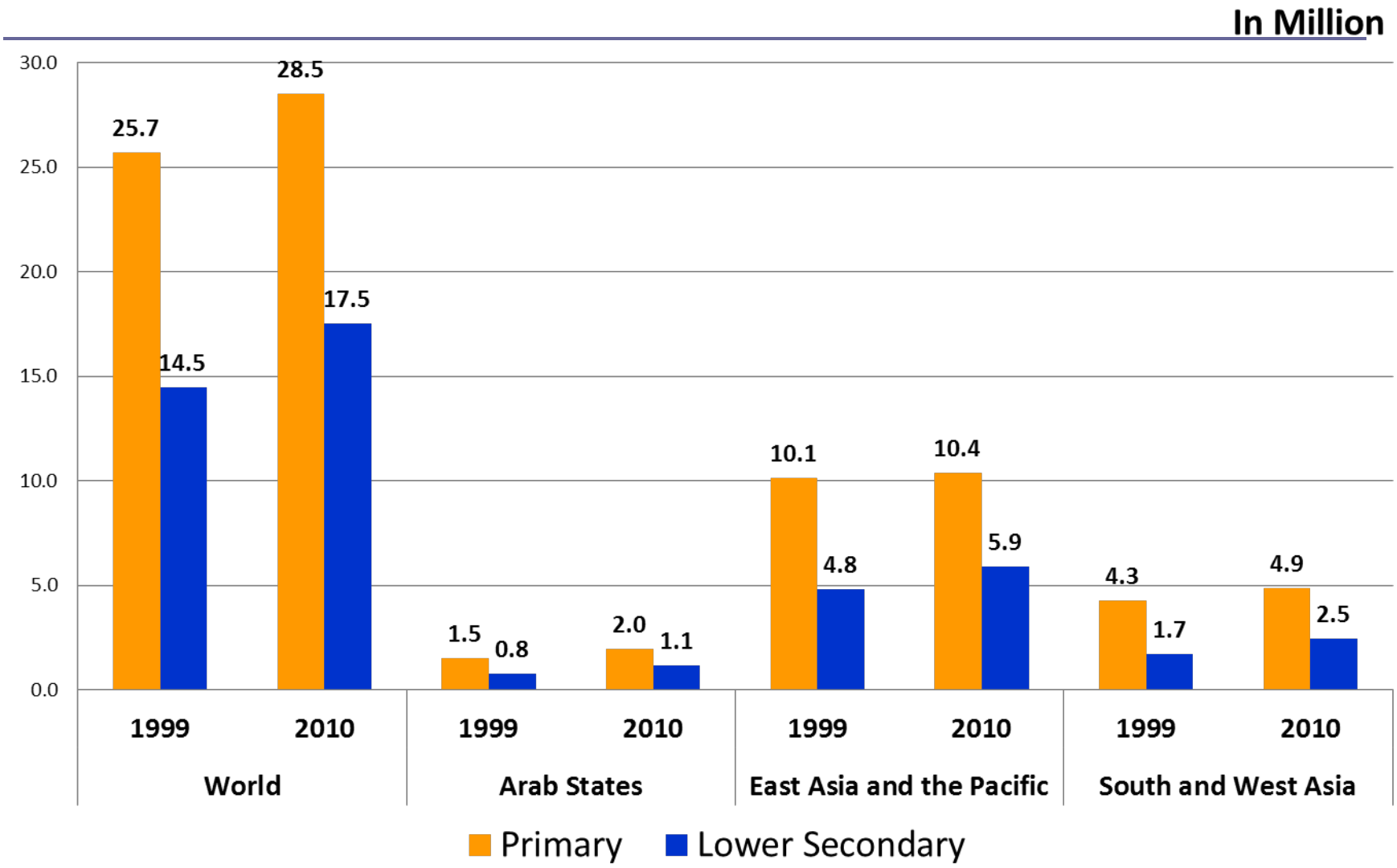


India

However, the percentage of girls' enrollment to total enrollment remains stagnant at 48 per cent, while the percentage of SC/ST enrollment to total enrollment has also not shown much change.

and
1% of schools
functional. Even

# Number of primary school teachers, 2010




Source: UIS database, May 2012

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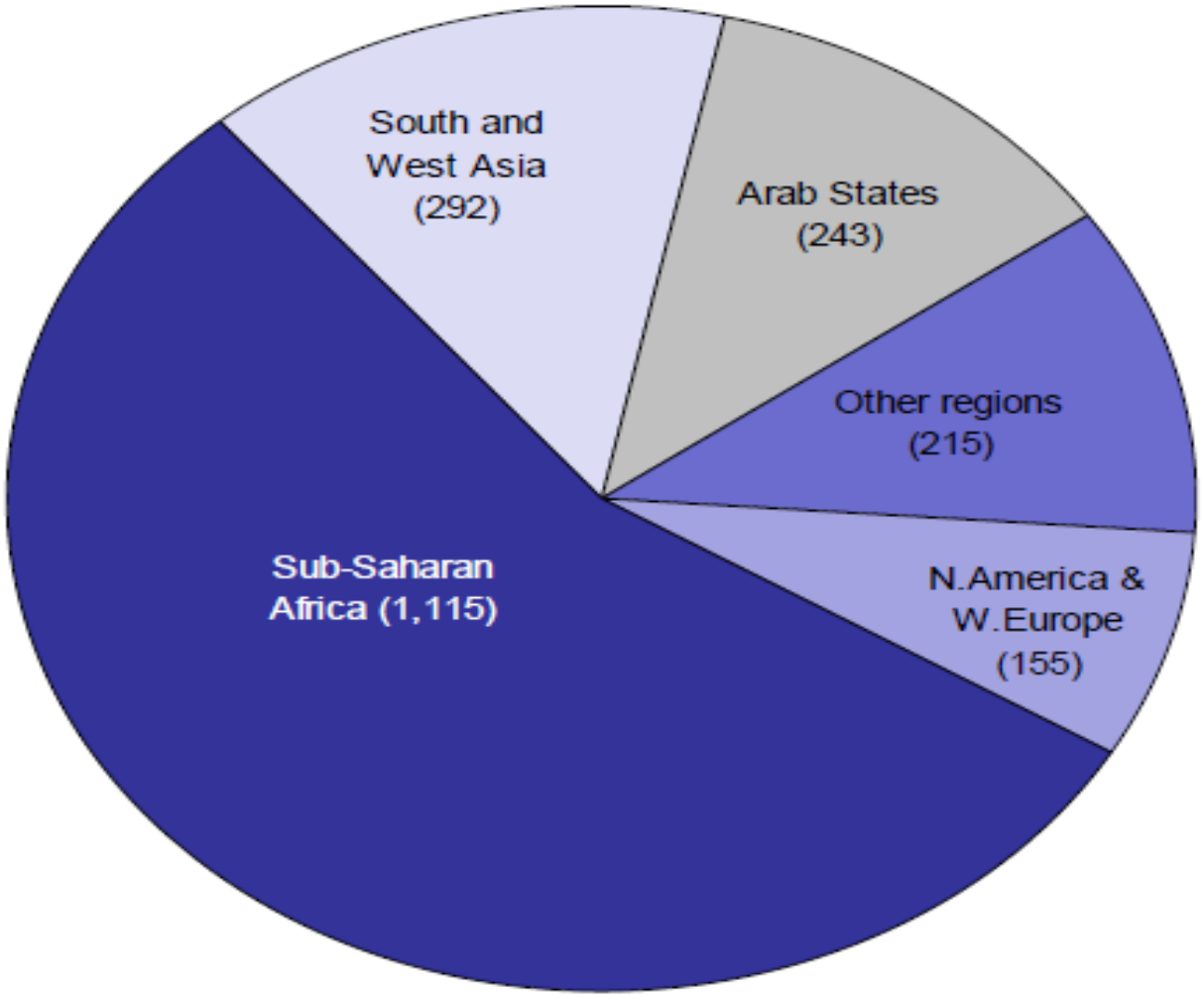
# Number of additional primary teachers needed to reach UPE, 2015

In 000




UIS, 2011

# International Database on Teachers

- **UIS Education Survey:**
  - **Collects education data annually from 162 developing countries.**
  - **Areas covered include teacher's numbers, disaggregated by educational level, sex, training, sector, programme orientation (i.e. general vs. technical/ vocational), work mode (i.e. full vs. part time), FTE.**
- **World Education Indicators Survey:**
  - **Collects education data annually from 15 countries**
  - **Additional areas covered by the above survey include teachers' ages, qualifications, salaries and incentives, and hours of work.**
  - **WEI survey on teacher (reliability, full coverage, consistence data are the issues).**
    - **WEI survey of Primary Schools (context of the school is important for teacher practice).**

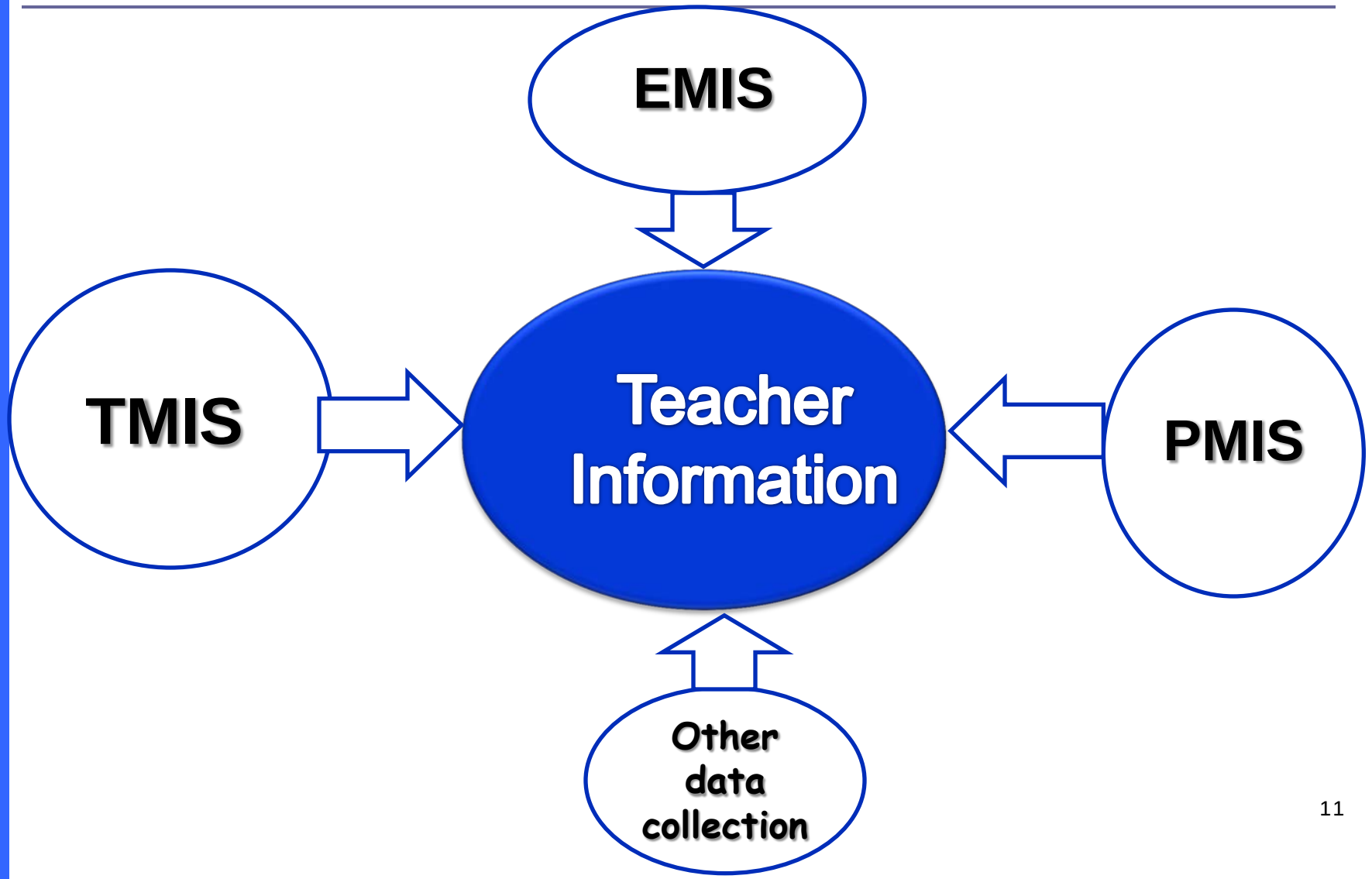
# International Agenda for Global Indicators on Teachers

- **Regional indicator initiatives** respond better to specific monitoring needs at the regional level. For example, in sub-Saharan Africa, it includes indicators on new teachers and teacher deployment in schools

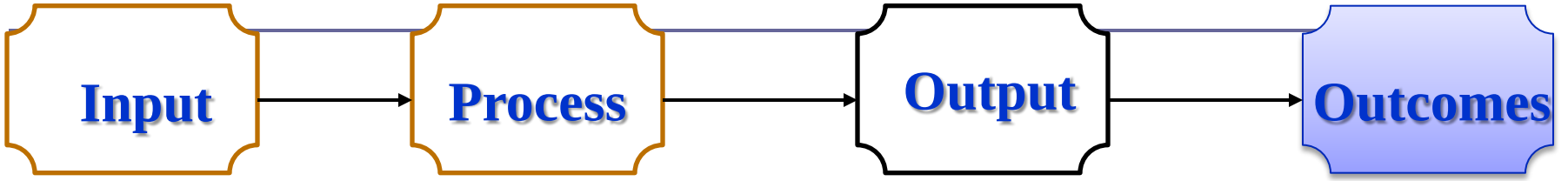
- **Planning to introduce global module** on teachers and training working conditions in 2014 - what indicators do Asian countries prioritise for regional comparisons?

- **Developing a new taxonomy** for teacher training so that teacher qualifications or training could be standardized and possible to compare between countries

# Sources of teachers data at national level



# Analytical framework- to ensure equity and quality




What goes into the system

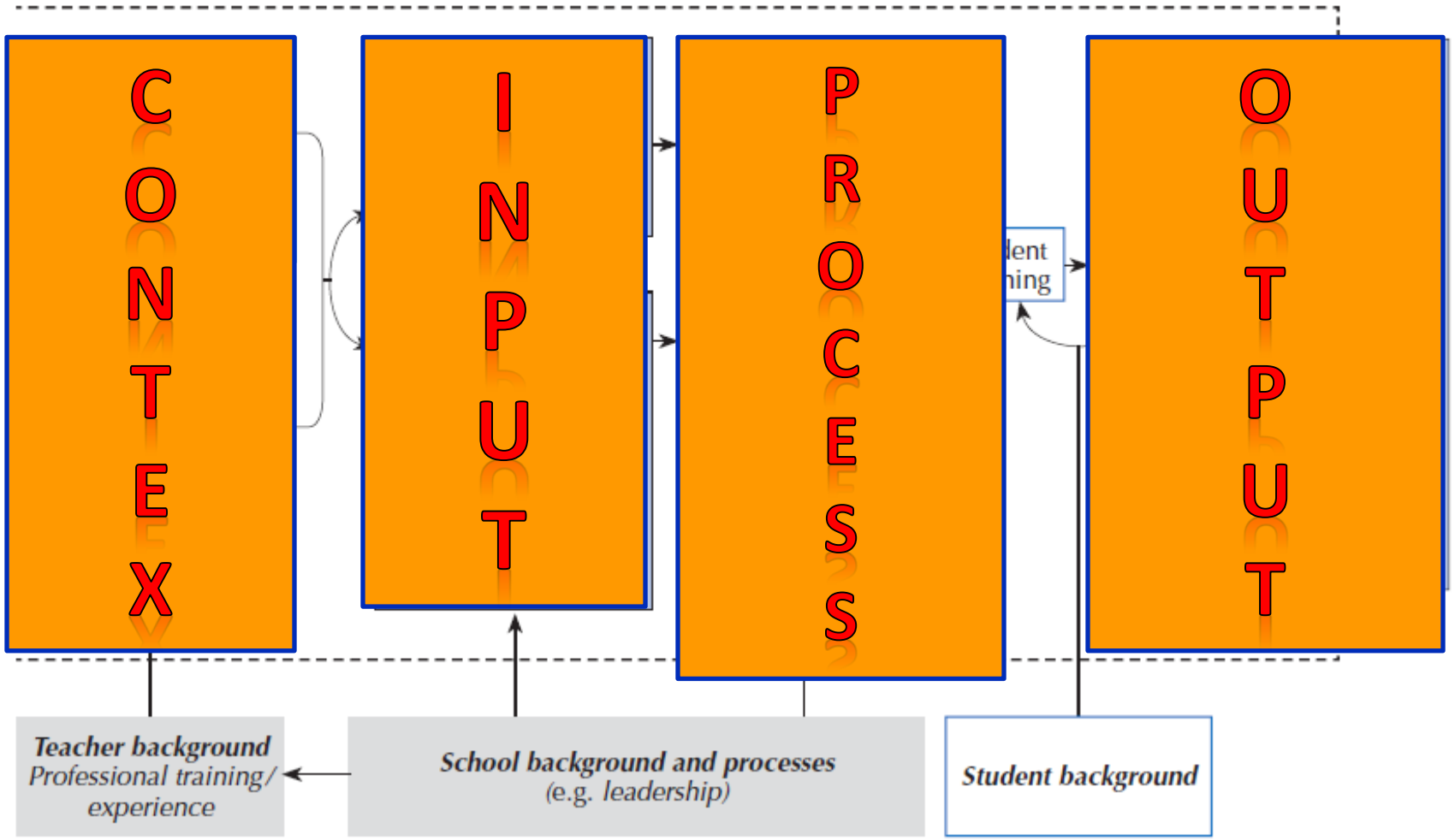
What happens in the system

What immediate results achieved

What products are made in the system

CONTEXT

# Framework for the analysis of teaching practices and beliefs






Source: OECD, TALIS 2009

# Some possible 'additional' indicators on teachers

- % of schools with national standard of PTR– 40:1 (or schools are between 0-10, 10-20, 20-30)
- % of GDP of teacher salary structure (starting, after completing 15 years, and so on) by public and private
- % of newly recruited teachers with more than 75% result in minimum qualification (or 50-60, 60-70, 7-80, 80- above)
- # of teachers required for next year and need to be trained next year
- % of teacher by qualification and subject and taught subject at schools

# Number of schools with different PTR at primary level in India

| PTR | Small State (Sikkim) | Middle State (Chattisgah) | Big state (Bihar) | National |
|---|---|---|---|---|
| Below 20 | 811 (91%) | 18805 (42%) | 2766 (4%) | 355991 (33%) |
| 20 to 30 | 68 (8%) | 13038 (29%) | 4466 (7%) | 268244 (25%) |
| 30 to 40 | 14 (2%) | 7030 (16%) | 8511 (14%) | 183618 (17%) |
| 40 to 45 | 1 (0%) | 1928 (4%) | 5401 (9%) | 60957 (6%) |
| 45 to 50 | 1 (0%) | 1229 (3%) | 5163 (8%) | 44562 (4%) |
| 50 to 60 | 1 (0%) | 1347 (3%) | 8962 (15%) | 58310 (5%) |
| 60 to 70 | 0 (0%) | 694 (2%) | 7024 (11%) | 35320 (3%) |
| 70 to 80 | 0 (0%) | 352 (1%) | 5227 (8%) | 22578 (2%) |
| 80 to 90 | 0 (0%) | 218 (0%) | 3936 (6%) | 15091 (1%) |
| 90 to 100 | 0 (0%) | 137 (0%) | 2676 (4%) | 9979 (1%) |
| Above 100 | 0 (0%) | 339 (1%) | 7624 (12%) | 28357 (3%) |
| Total | 896 (100) | 45117 (100) | 61756 (100) | 1083007 (100) |
| National STR | 12:1 | 24:1 | 58:1 | 30:1 |

**Source: DISE 2010-11**

# Policy: at least one female teacher in each school

## No of schools by number of female teachers- India

| States | No female teacher | Only One | Two | Three | More than three |
|---|---|---|---|---|---|
| Small State (Tripura) | 39 (1%) | 264 (6%) | 894 (21%) | 747 (18%) | 2260 (54%) |
| Middle State (Himachal) | 1844 (12%) | 4167 (28%) | 4653 (31%) | 1930 (13%) | 2503 (17%) |
| Big State (Bihar) | 5904 (9%) | 15294 (23%) | 14553 (21%) | 10869 (16%) | 21297 (31%) |
| National | 141214 (13%) | 294479 (28%) | 296000 (28%) | 134979 (13%) | 196558 (18%) |

Source: DISE 2010-11

# Need to introduce proper mechanism to collect data on Process and Outputs

## Process

- Classroom management, teaching methods, conditions of teaching
- Teacher satisfaction
- Relationship with parents, students and managers
- Teacher attendance (announced and unannounced)
- Substitute teacher
- Difference between assigned subject and actual teaching

## Outputs

- Result of teacher eligibility test (TET)
- Graduates from in-service trainings
- Graduates from academic courses (B. Ed., M. Ed.)

# *The 5 RIGHT principles of data collection and management*

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- Get the **RIGHT data** – **To collect data which are relevant to the specific topic or issue**
- Get the data **RIGHT** – **To collect data with precise definition and appropriate method of measurement**
- Get the data **RIGHT** away – **To get the most current and timely data**
- Get the data the **RIGHT** way – **To get data through a rigorous process which can guarantee data quality and ensure consistency**
- Get the **RIGHT** data management – **To collect reliable data which is guaranteed by good quality control conducted by related stakeholders**

Source: Training Module-UIS-AIMS

# Limitations of Teachers Data Management Systems in India --- Public and Private - I

- **Integral part of EMIS questionnaire - relying on self reported school census data**
- **Parallel and duplication of data collection for different purpose – SES, DISE, SMIS, NCERT**
- **No single agency responsible to manage public and private school teachers data**
- **Database maintained by MOF and MOE on government (pensionable) teachers**
- **No proper mechanism to collect qualitative information**

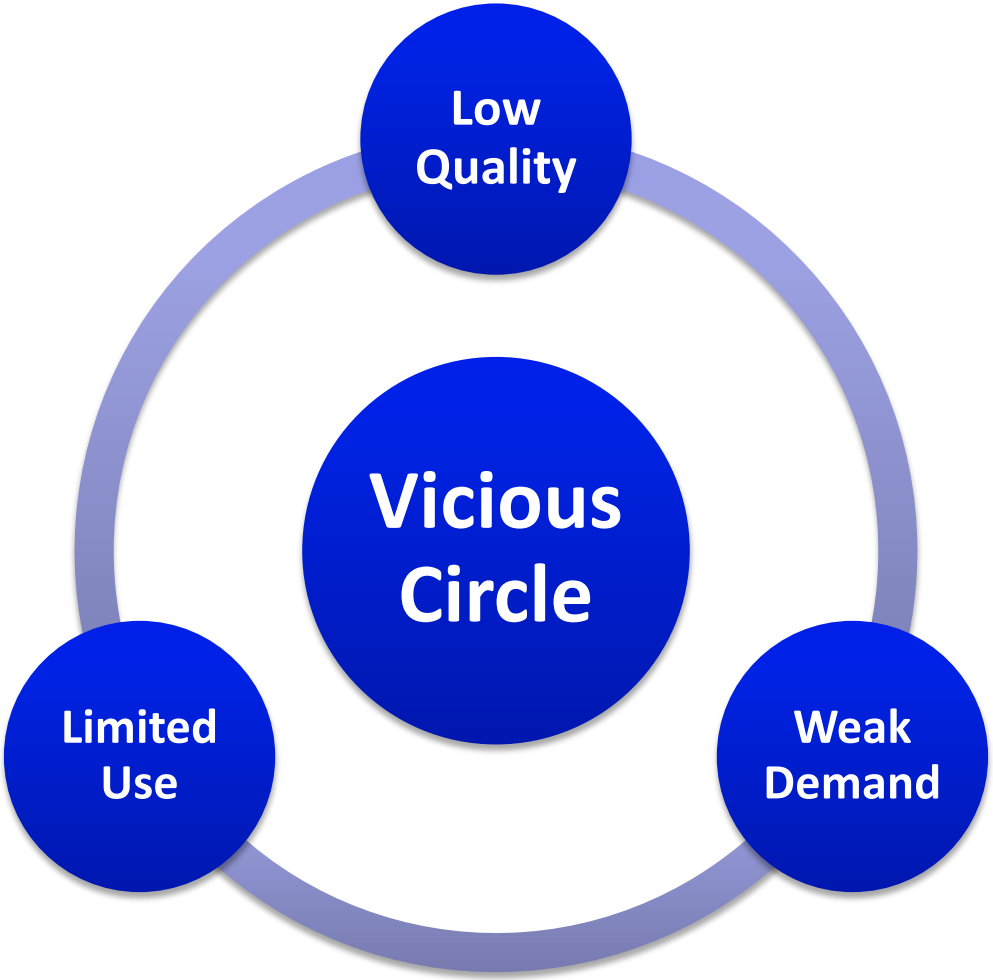
# Limitations of Teachers Data Management Systems in India -- Public and Private - II

- **Need to introduce** a proper uniform definition for calculating and presenting data across the country
  - DISE – Pupil Teacher Ratio (PTR) by level
  - SES – Pupil Teacher Ratio (PTR) by unit of school
- **Lacks** mechanism to calculate FTE on primary, upper primary, lower secondary, secondary and higher education.
- **Lacks** clarity in roles and responsibilities for data management at sub national levels –school, block, district and state.

# Use of collected quantitative data from EMIS, India

- Limited use for policy monitoring purpose, heavily focused on collection
- No teachers data analysis framework has been developed
- Relying heavily on average PTR, qualifications at state level (or district), no disaggregated analysis
- No analysis on teacher distribution at school level which is the issue of the developing countries including India
- Maintains school level data (DISE) at central level but not enough analysis
- No projection on new teacher requirements using transparent standard methodologies

# Use and quality of statistics



# Some Immediate Next Steps- 5Ds

- **Develop** teacher M&E plan along with teacher policy development;
- **Develop** an integrated institutional framework by agreeing on key data sets to be collected at the national level;
- **Decentralize** data management work (or share) based on location of decision making power;
- **Develop** standardised methodology to compile and calculate teacher related indicators;
- **Develop** capacity of teachers and education managers in collection, compilation and analysis of teachers data

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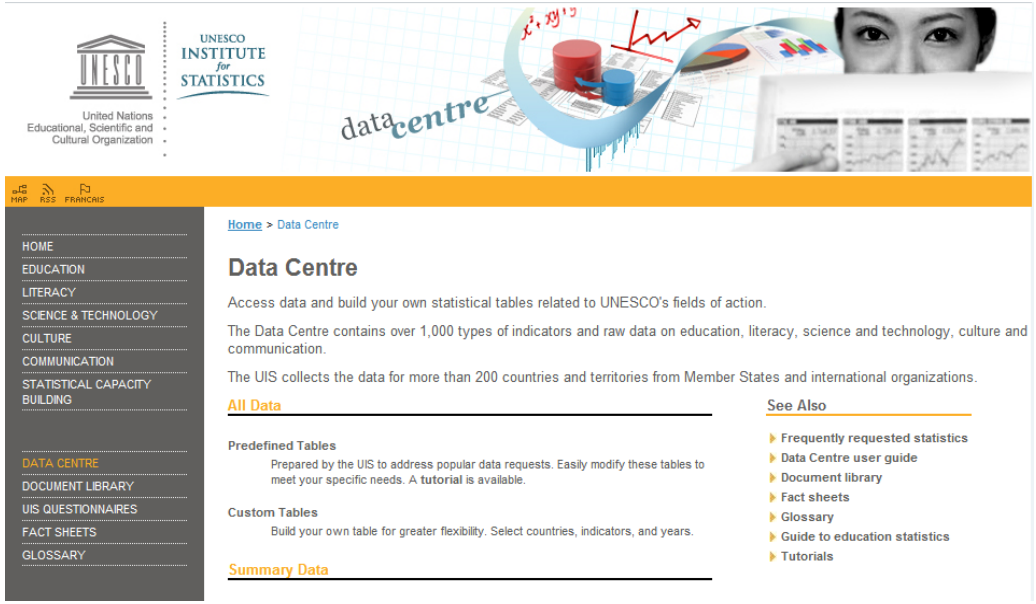
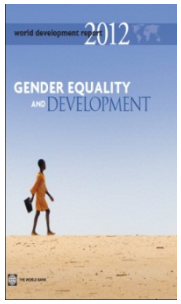
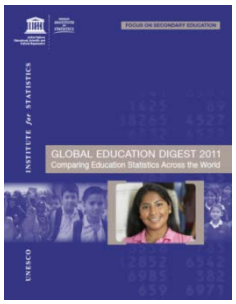
# Data Center for updated international data

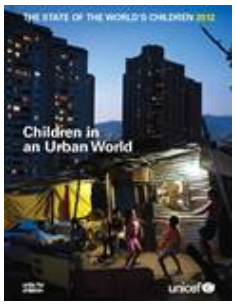
- **Available online,**
- **3 updates per year**
  - **May**
  - **October**
  - **December**



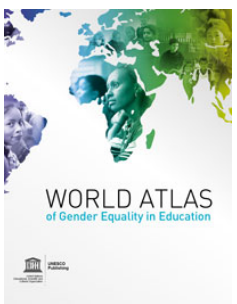





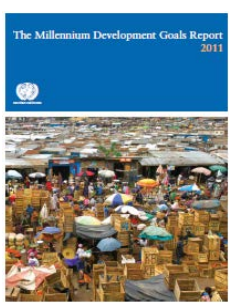










# Credits

- **Albert Motivans**, Head, Education Indicators and Data Analysis Section, UIS, Montreal.
- **Nyi Nyi Thaung**, Programme Specialist, UNESCO, Paris.
- **Varshika Munjal**, Research Associate, UNESCO, New Delhi.

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# Thank You!

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