

# Improving quality of DISE data



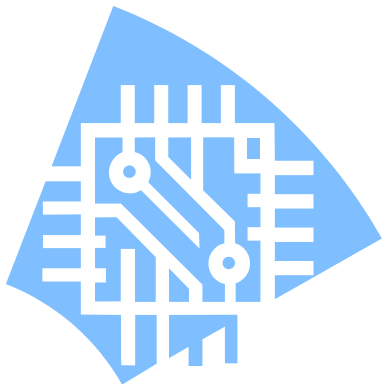
**Dr. Ganesh Kumar Nigam**

Consultant- M &E

unite for  
children

unicef 

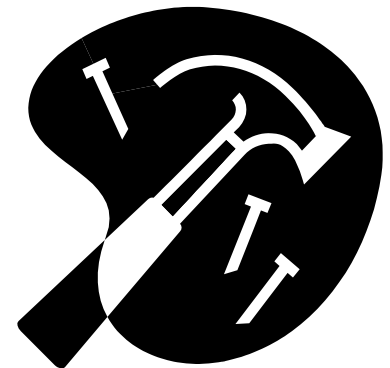
**At the beginning a disease is easy to cure but difficult to diagnose. But as time passes, not having recognized or treated it at the outset, it becomes easy to diagnose but difficult to cure.**

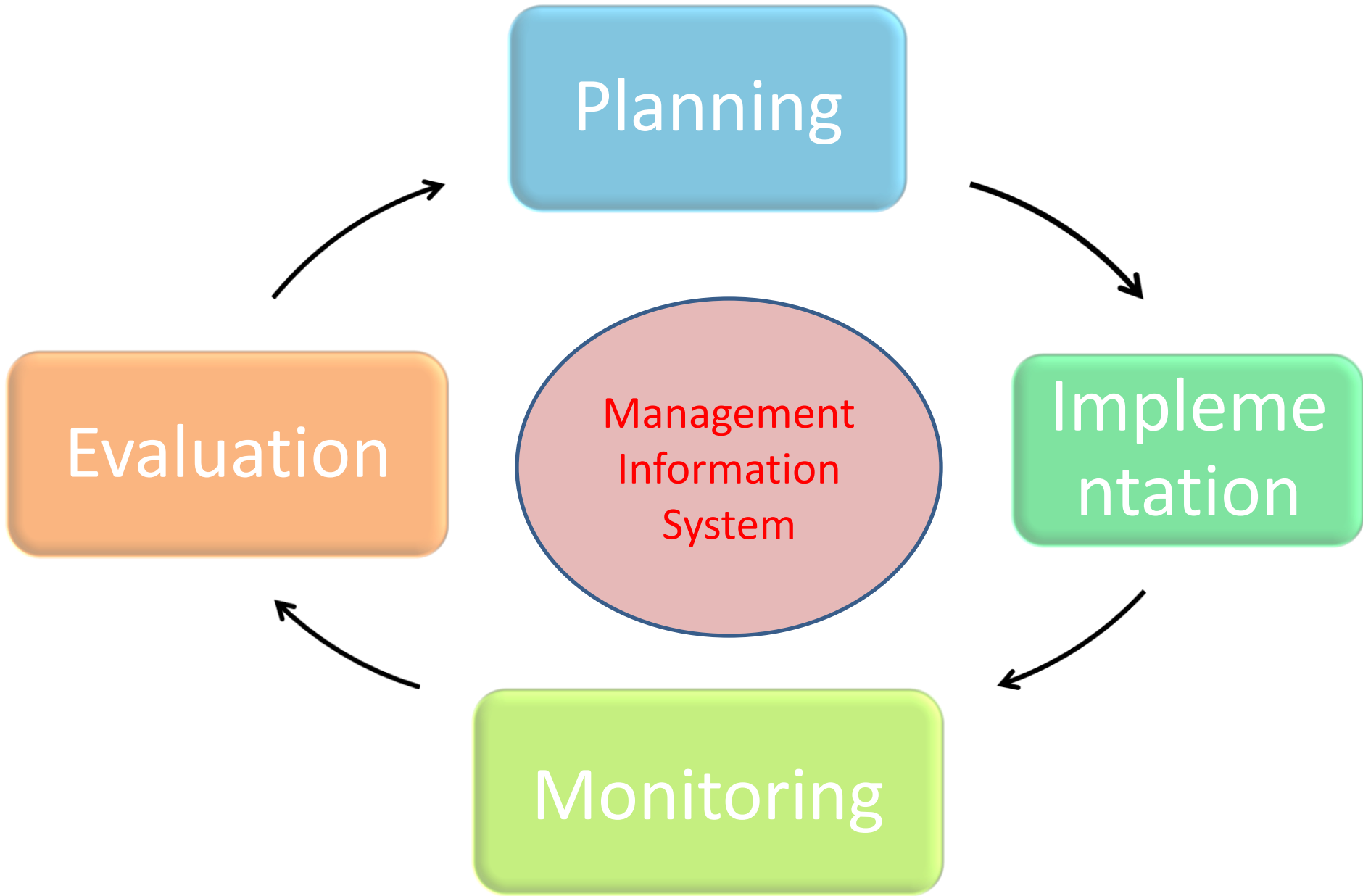


**Machiavelli**

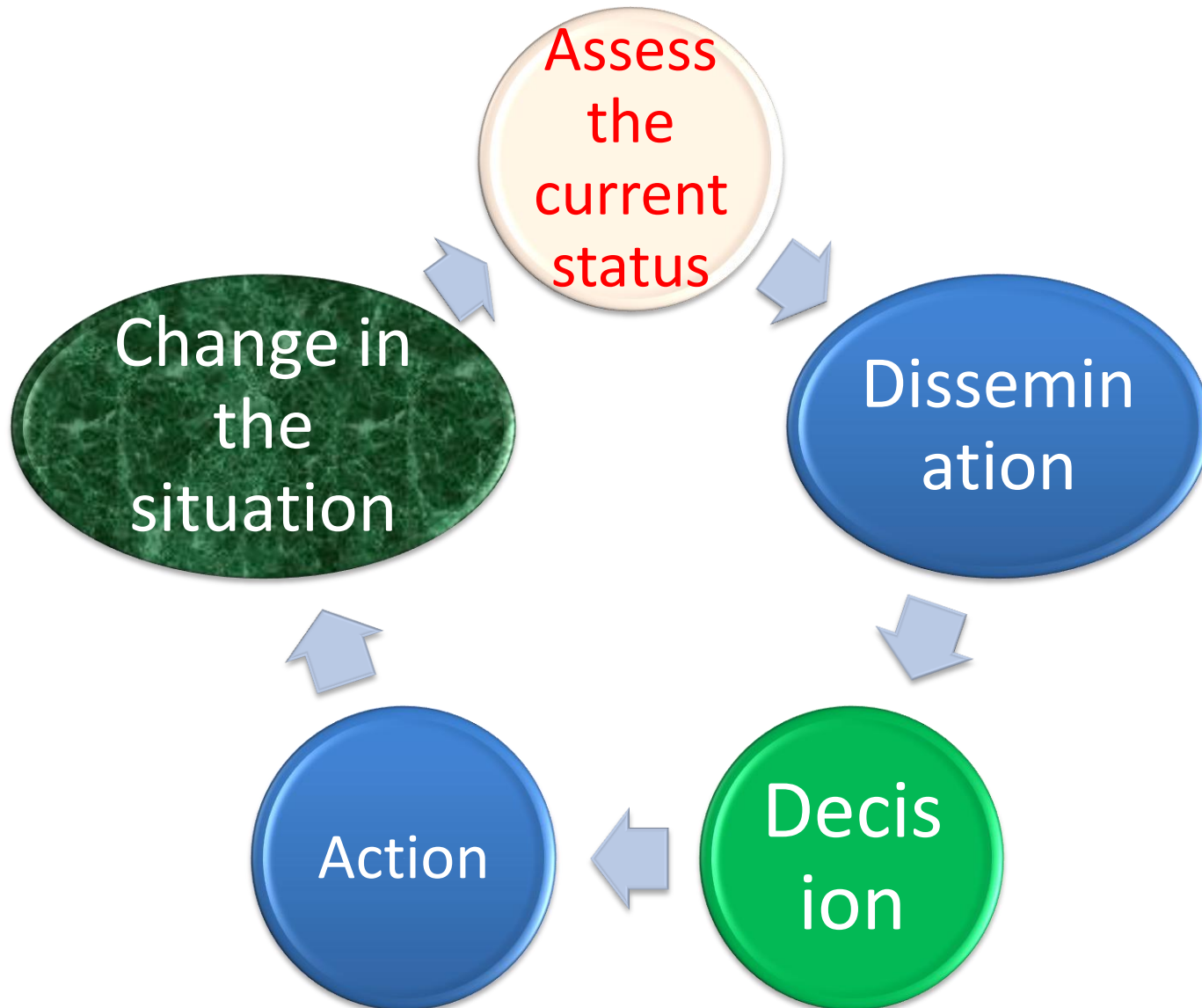
# About the presentation

- Situation analysis
- Quality
- Issues quality issues
- How to improve quality



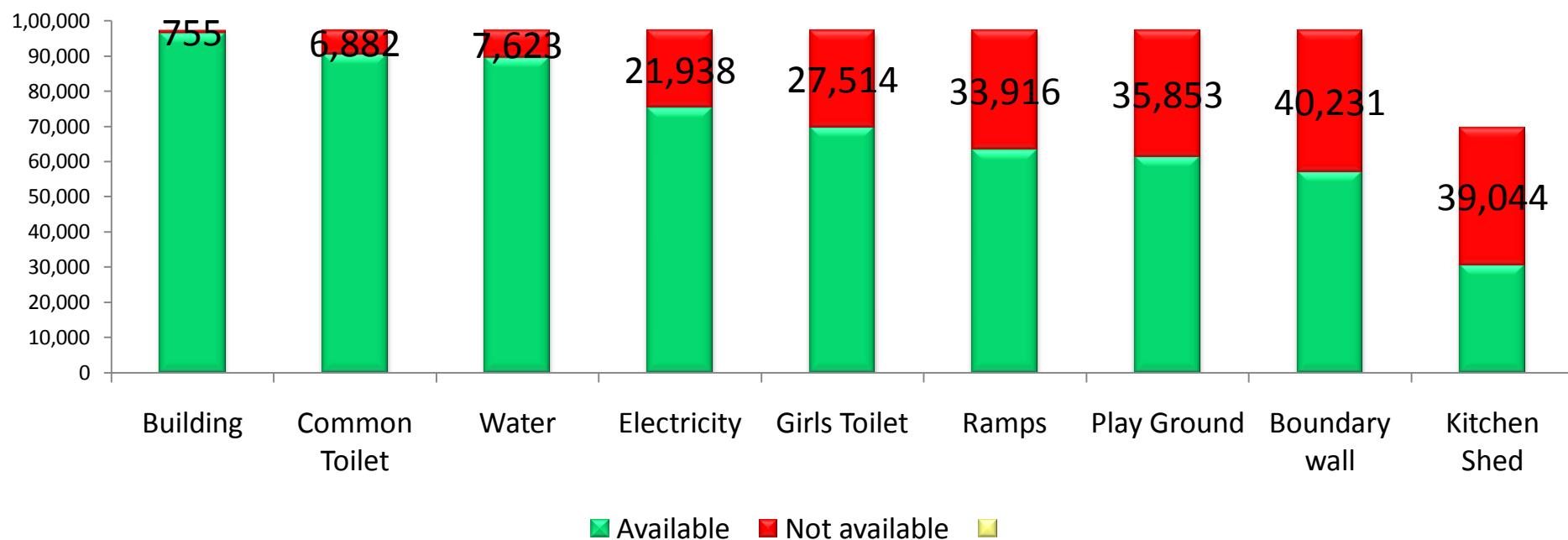


# Steps for use of data



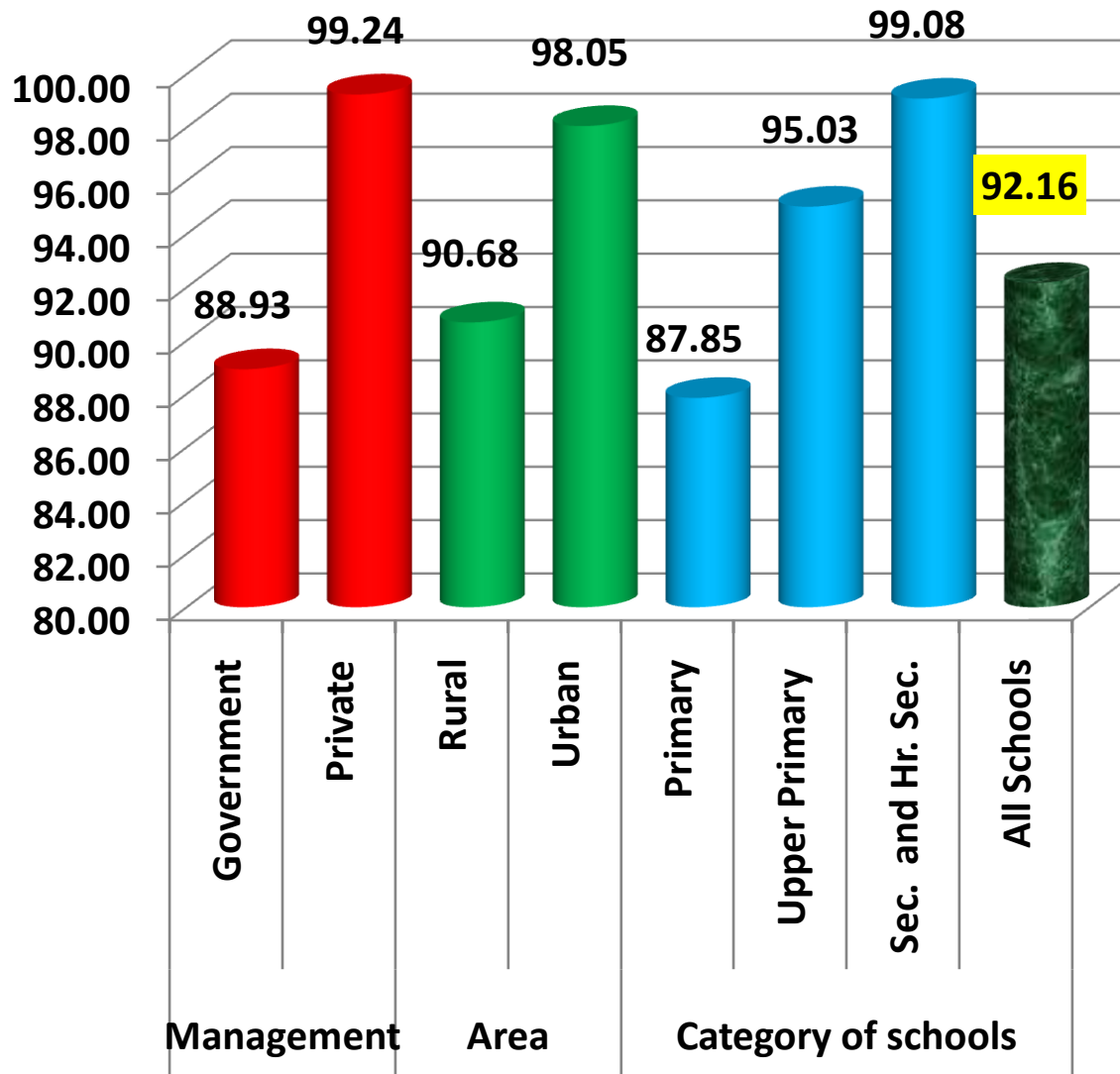
# Elementary Schools and infrastructure facility ,2010-11

- 49,085 Primary Schools, 48,171 Upper Primary Schools and 5, 595 secondary and higher secondary schools in year 2010-11 reported DISE data in the state (Total 97,256 schools)
- Out of 97,256 elementary schools 67,241 (69%) are Government managed schools and 30,015 (31%) schools are private managed schools
- Primary to upper primary school ratio is 1.64,which is lower than norm (2)
- Status of infrastructure facility in elementary schools (97,246)



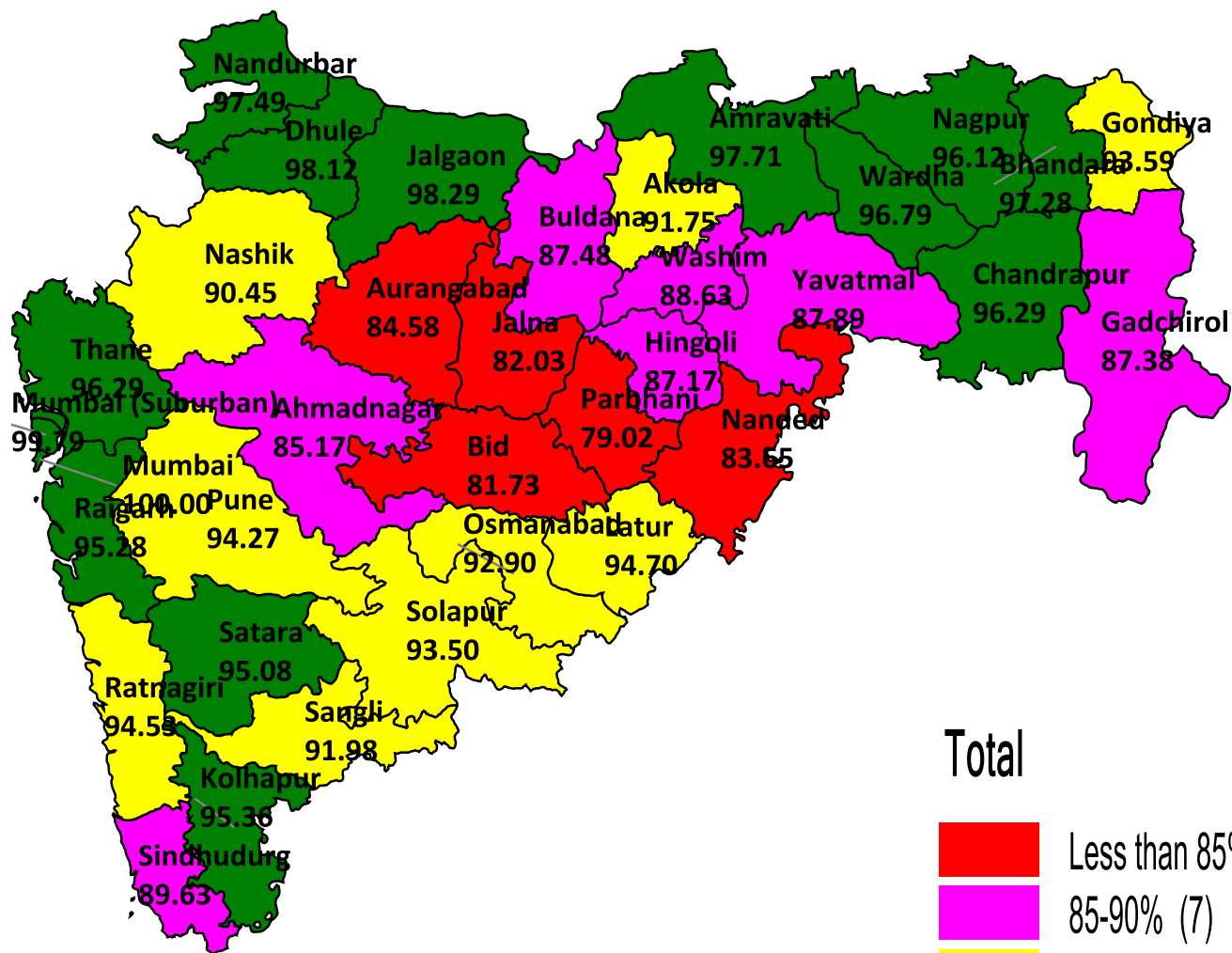
- Building is available in mostly schools but other infrastructure facility is required in many schools

# Percentage of schools having drinking water facilities by management, area and category, 2010-11



- **7,623** schools (7.84%)- most of which are Government schools (7,390) and rural schools (7,242) do not have drinking water facilities
- Private and urban schools are better in terms of access to drinking water facilities as compared to Government and rural schools
- Upper Primary and Secondary/ Higher Secondary schools are better in terms of access to drinking water facilities as compared to Primary schools.

# Percentage of schools having drinking water facilities, 2010-11



National Average :  
93.5% (2009-10)

State Average- 92.16%

Lowest- 79.02 %  
Parbhani

Highest- 100 % Mumbai

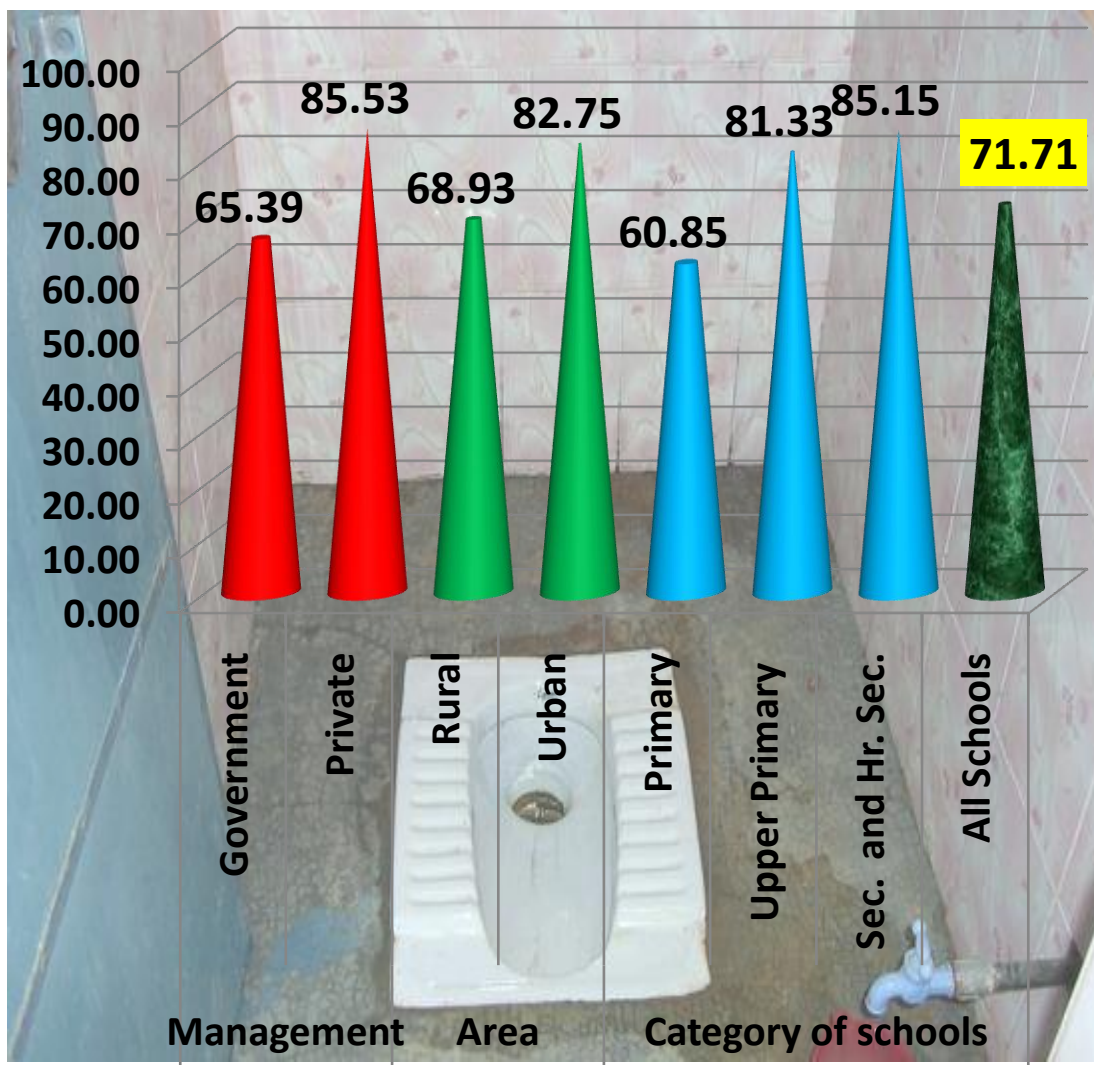
Total

Percentage Range	Number of districts
Less than 85% (5)	05
85-90% (7)	07
90-95% (9)	09
More than 95% (14)	14

Source:

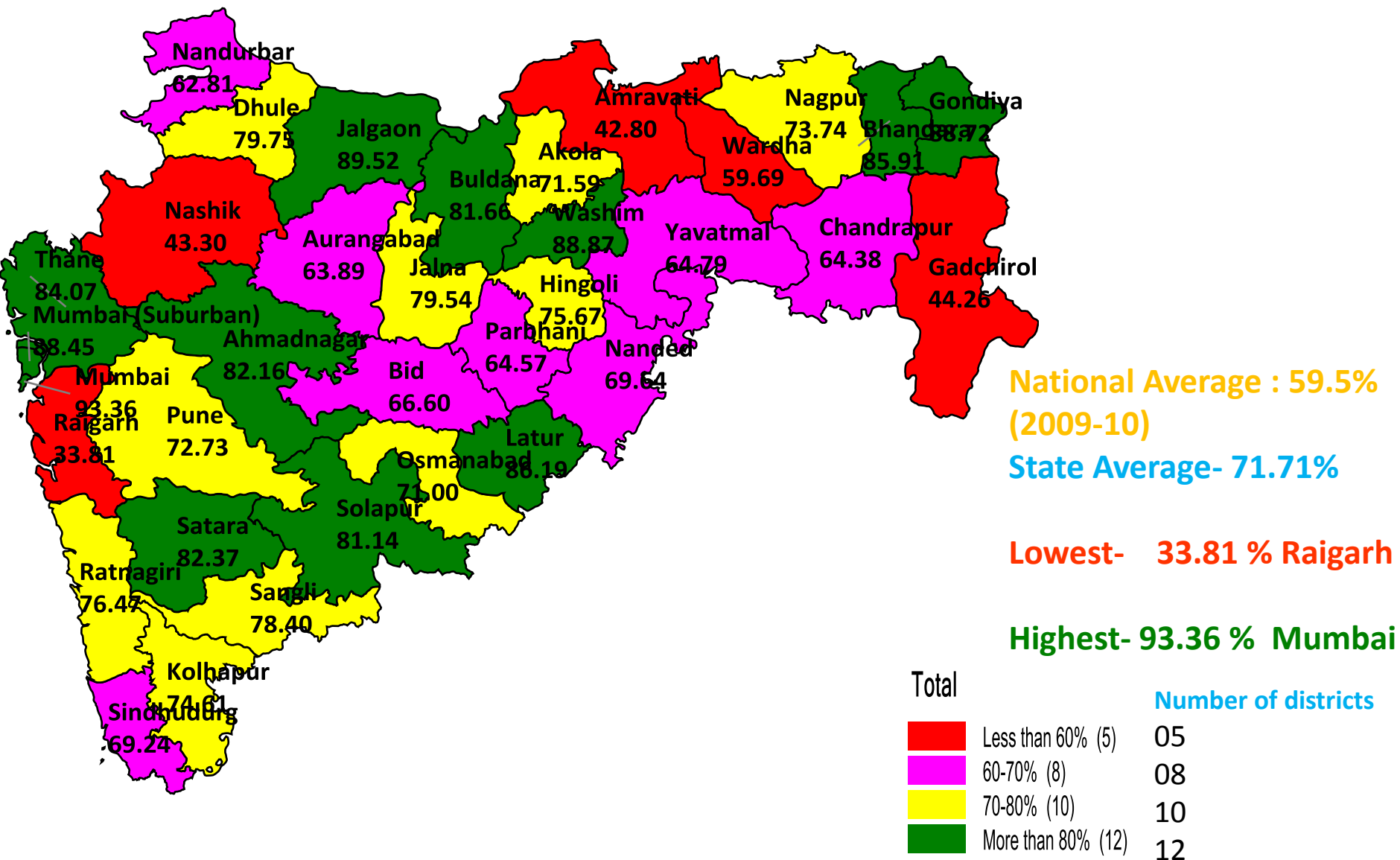
DISE, 2010-11, Maharashtra Prathamik Shiksha Parishad, Mumbai

# Percentage of schools having separate toilet facilities for girls, 2010-11



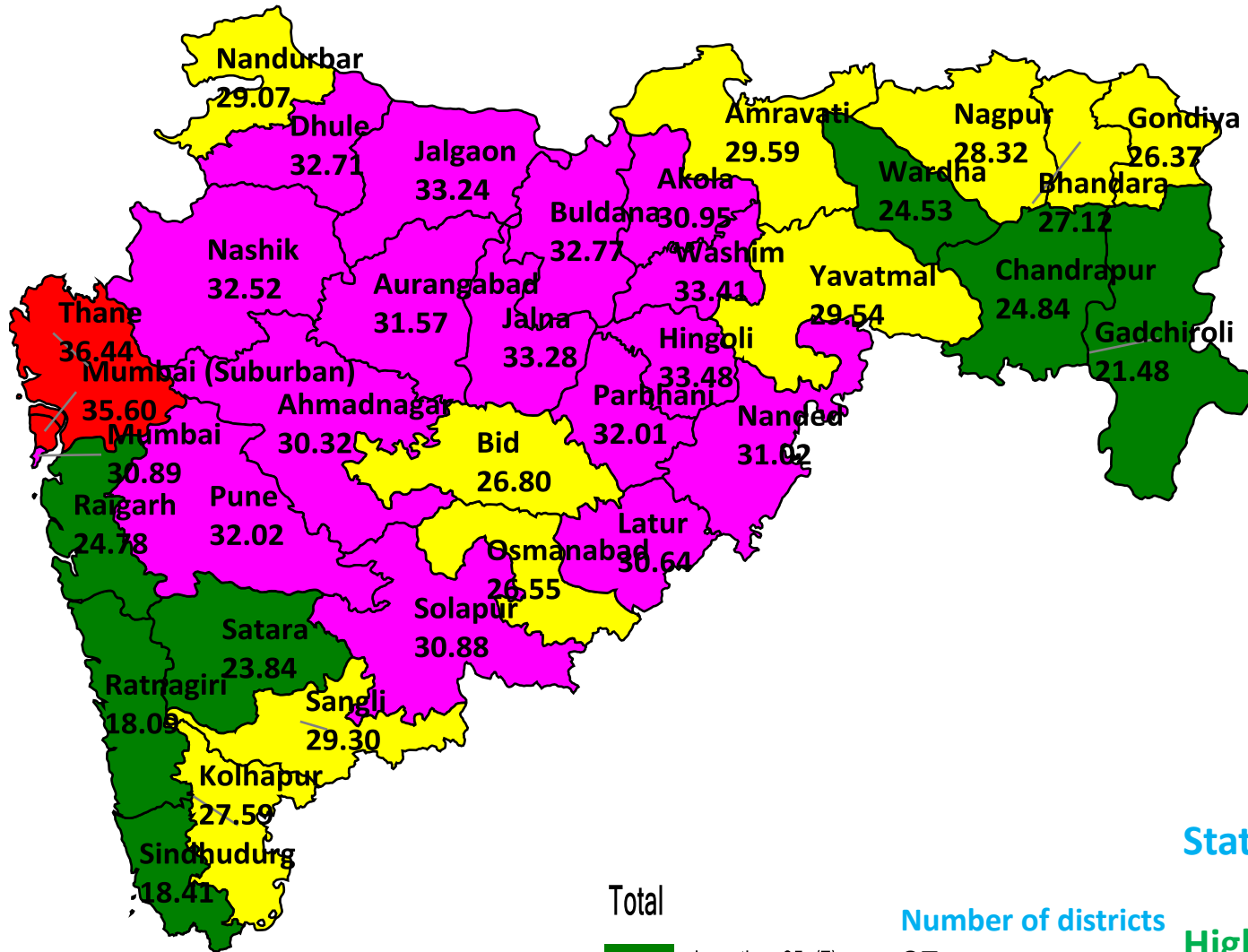
- **27,514** schools (28.29%) - most of which are Government schools (23,099) rural schools (24,138), do not have separate toilet facilities for girls
- Private and urban schools are better in terms of having separate toilet facilities for girls as compared to Government and rural schools
- Upper Primary and Secondary/ Higher Secondary schools are better in terms of having separate toilet facilities for girls as compared to Primary schools

# Percentage of schools having separate toilet facilities for girls , 2010-11



Source: DISE, 2010-11, Maharashtra Prathmik Shiksha Parishad, Mumbai

# Pupil Teacher Ratio (PTR) by districts, Maharashtra, 2010-11



State Average : 30.13

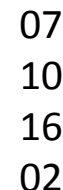
Highest: 36.44 Thane

Lowest : 18.09 Ratnagiri

Total

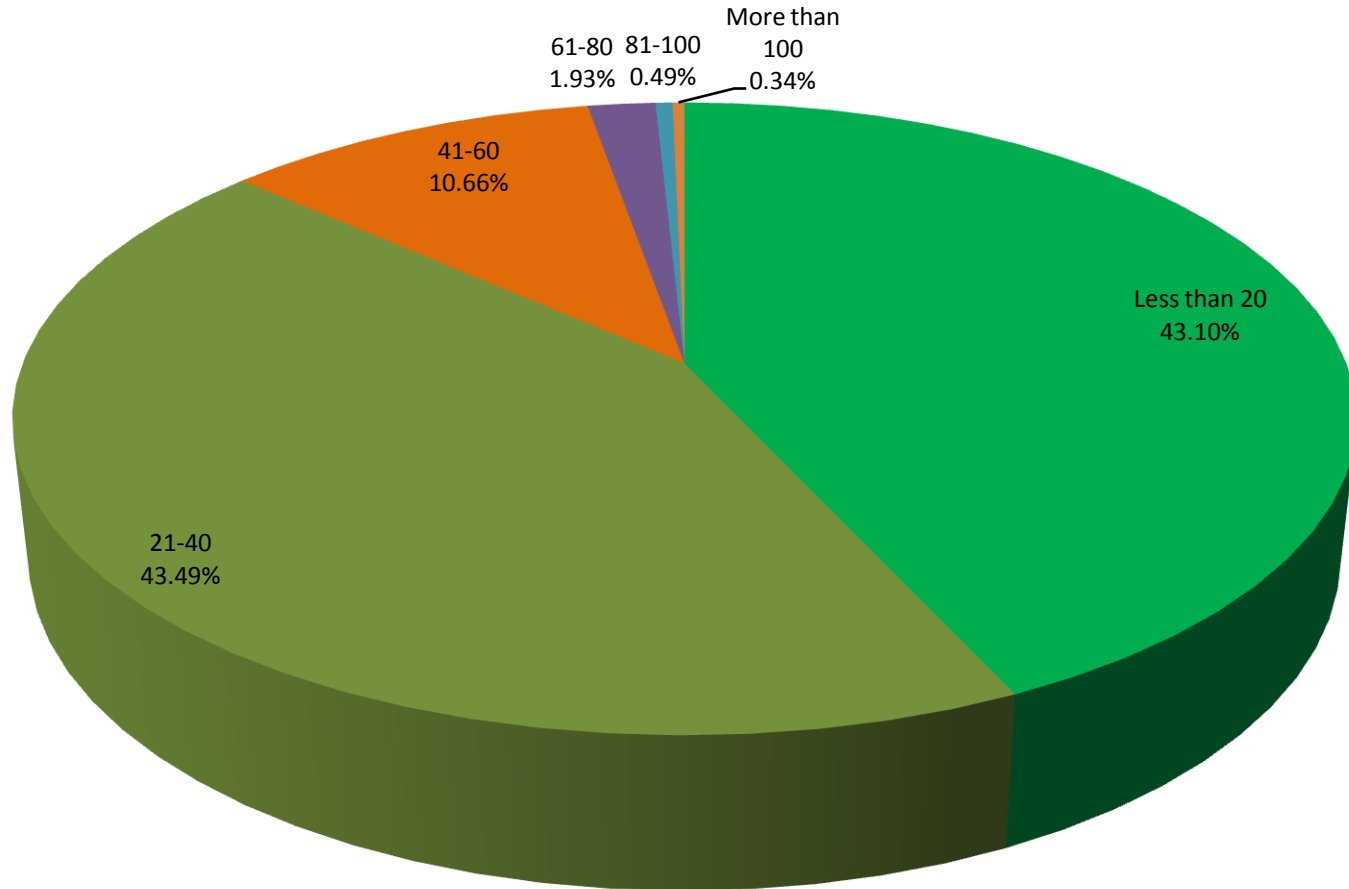


Number of districts

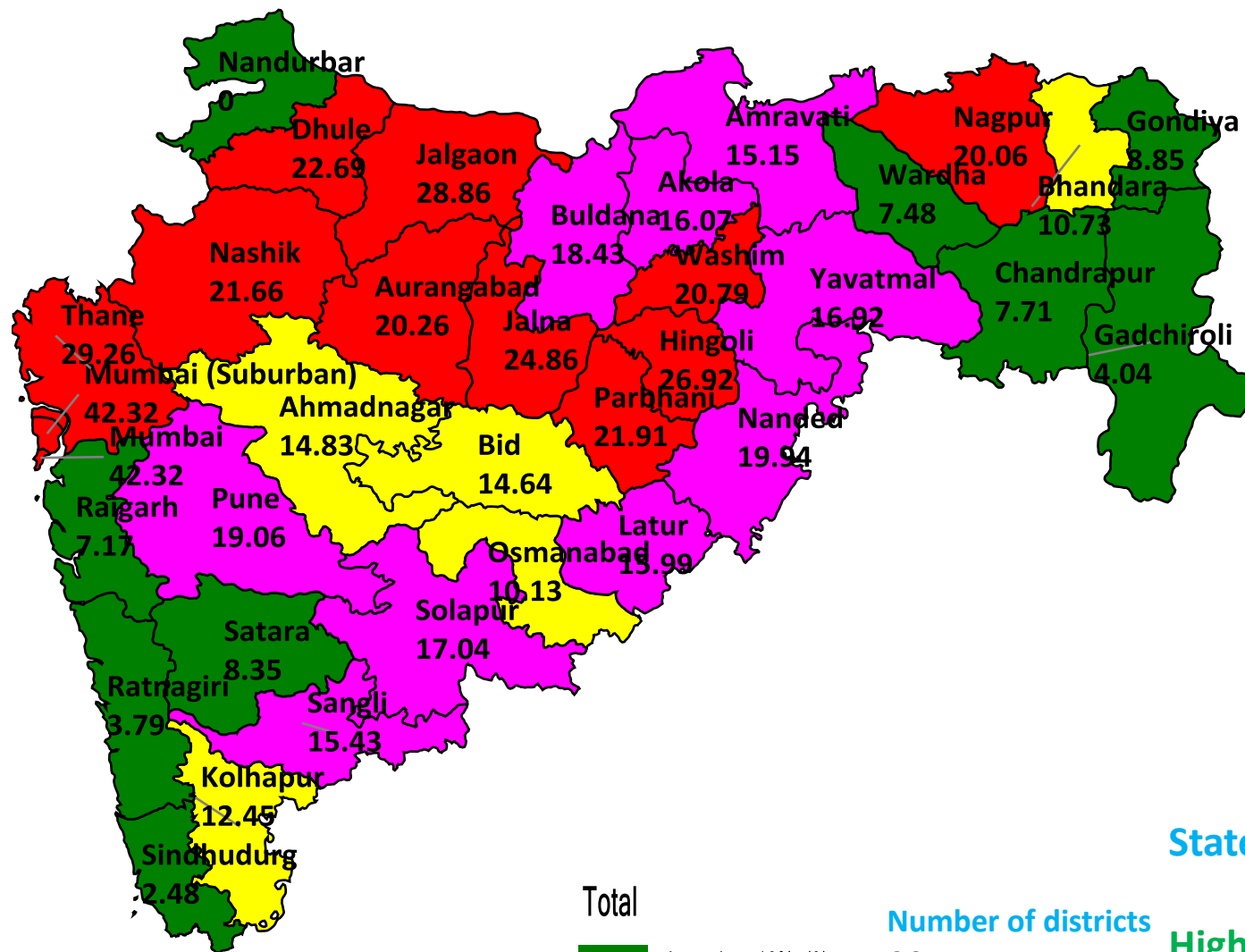


# Teachers

- More than 85% schools have PTR less than 40.



# Percentage of schools having PTR more than 35 by districts, Maharashtra, 2010-11



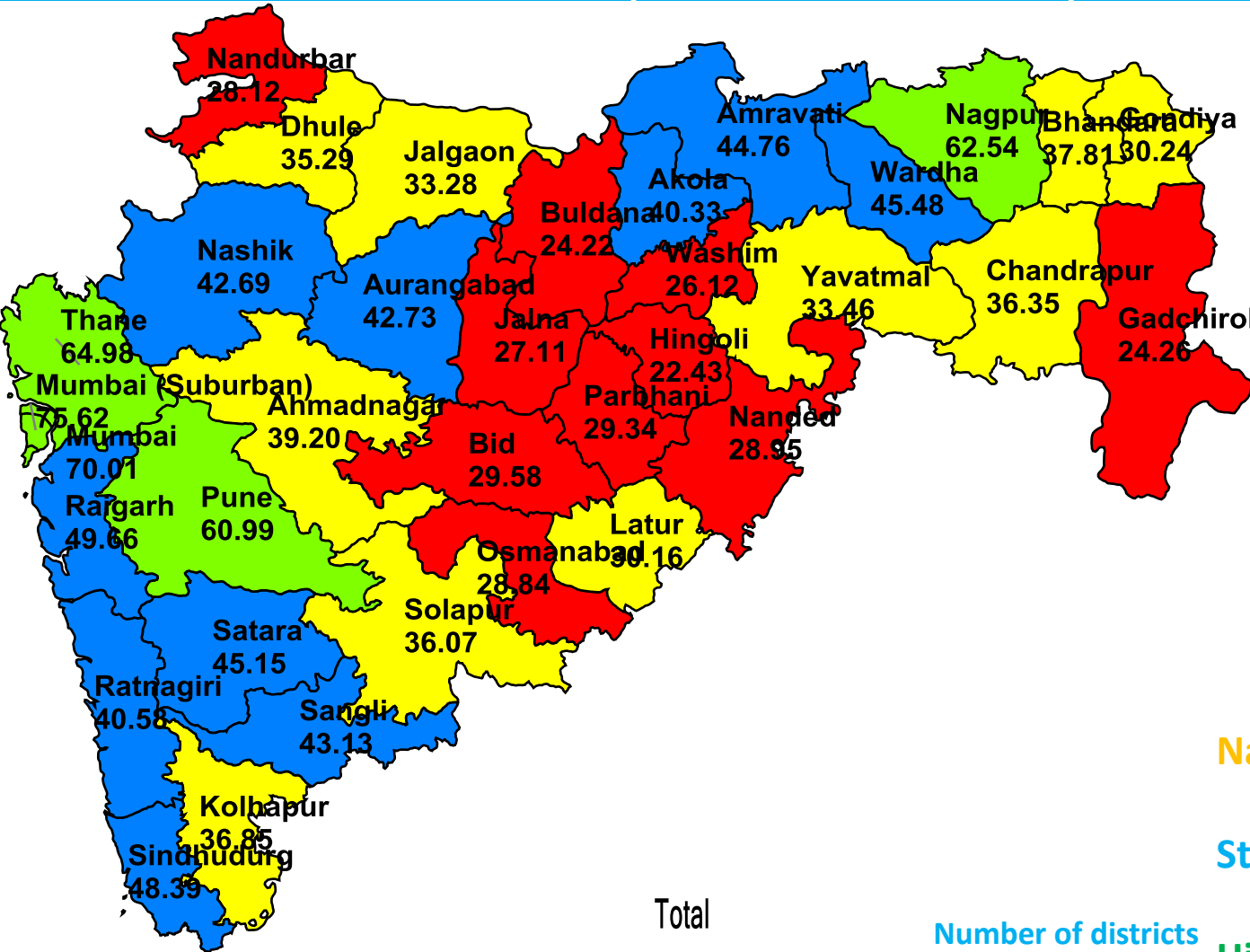
State Average : 17.28 %

Highest: 0 % Nandurbar

Lowest : 42.32 % Mumbai

Total	Number of districts
Less than 10% (9)	09
10-15 % (5)	05
15-20 % (9)	09
More than 20% (12)	12

# Percentage of female teacher by districts, Maharashtra, 2010-11



• Share of female teacher to total teacher varies across the districts. **Five districts** (Mumbai, Mumbai sub urban, Thane, Pune and Nagpur) have share of female teacher **more than 60%** while **three districts** (( Hingoli, Buldana and Gadchiroli ) have less than 25%

**National average : 44.83%**

**State Average : 44.42%**

**Highest: 75.62% Mumbai (suburban)**

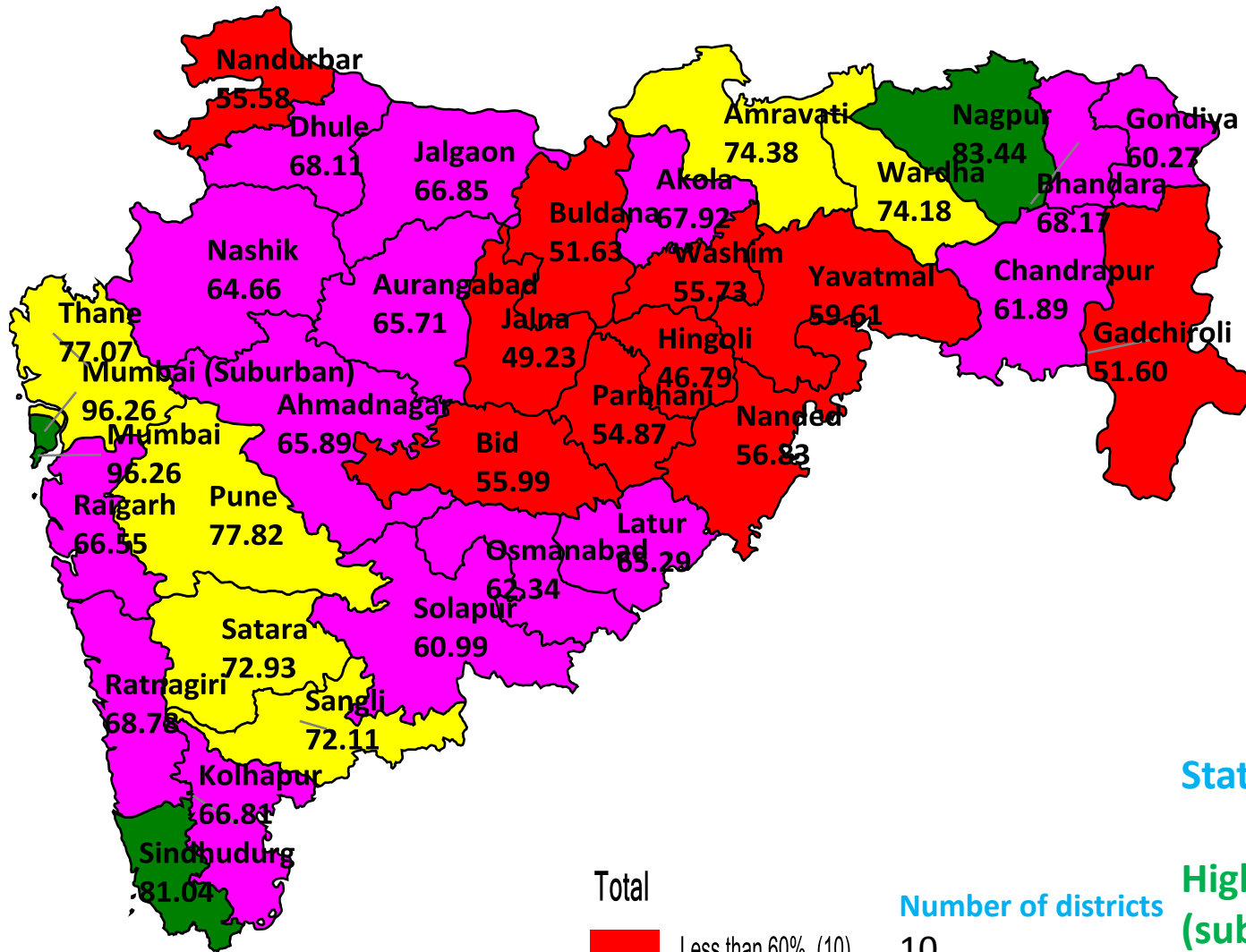
**Lowest : 22.43 % Hingoli**

Total

Less than 30% (10)	10
30-40% (10)	10
40-50% (10)	10
More than 50% (5)	05

Number of districts

# Percentage of schools with female teacher by districts, Maharashtra, 2010-11



State Average : 67.57 %

Highest: 96.26% Mumbai (suburban)

Lowest : 46.79 % Hingoli

Total

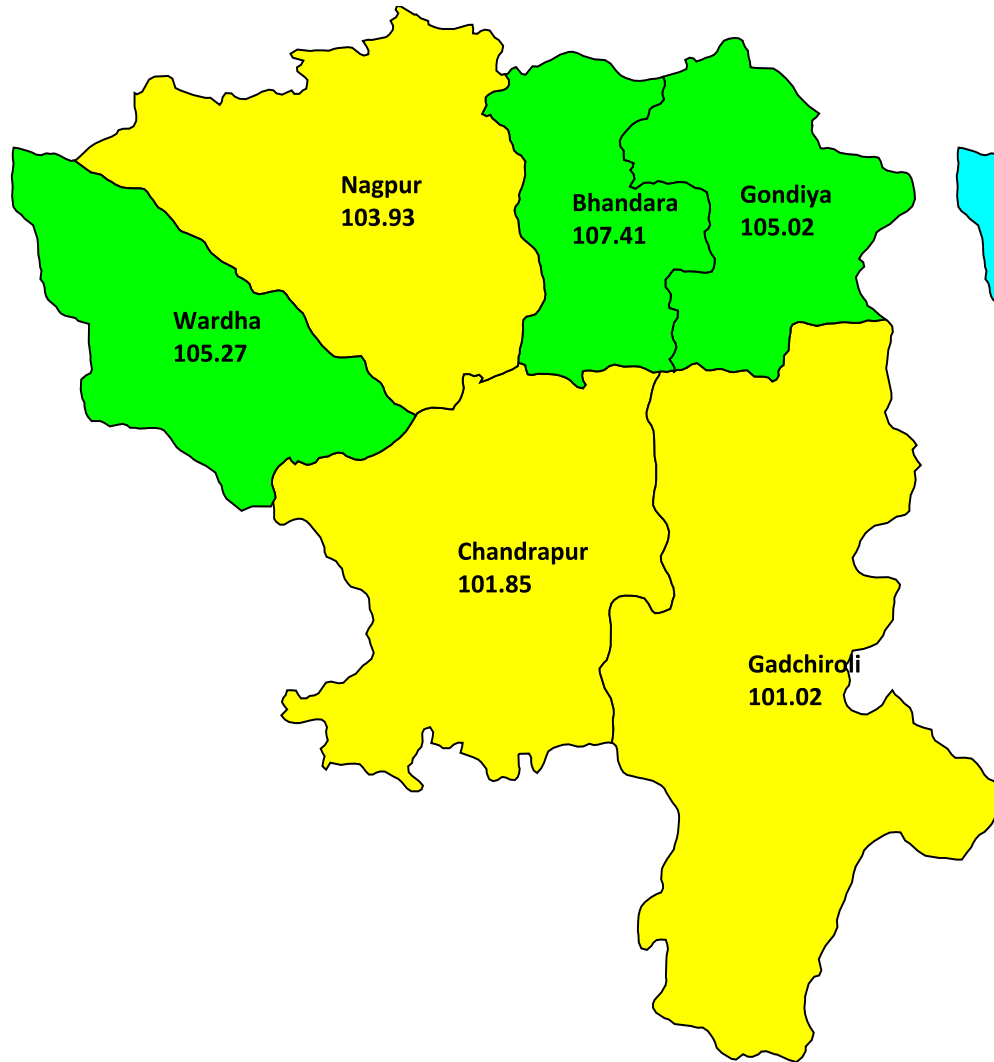
- Less than 60% (10)
- 60-70% (15)
- 70-80% (6)
- More than 80% (4)

Number of districts

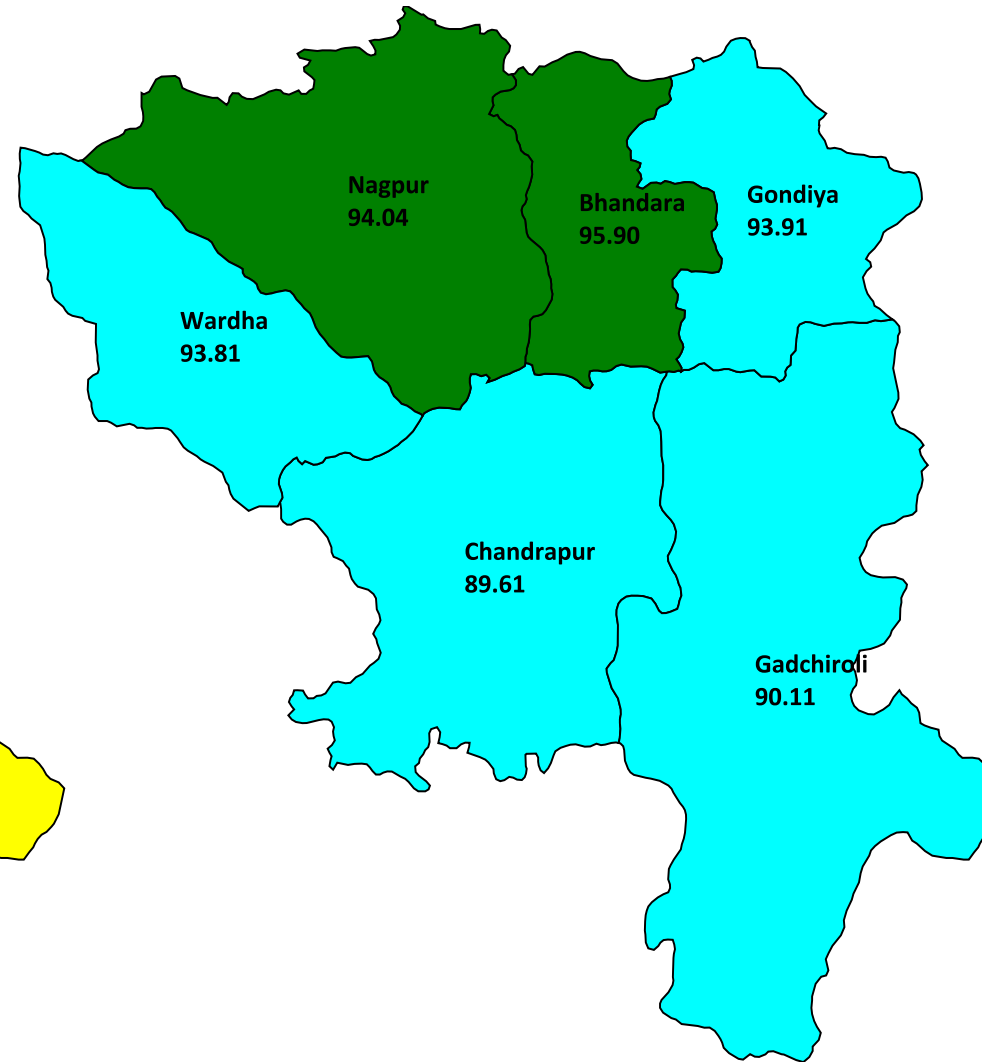
- 10
- 15
- 06
- 04

# GER and NER

GER

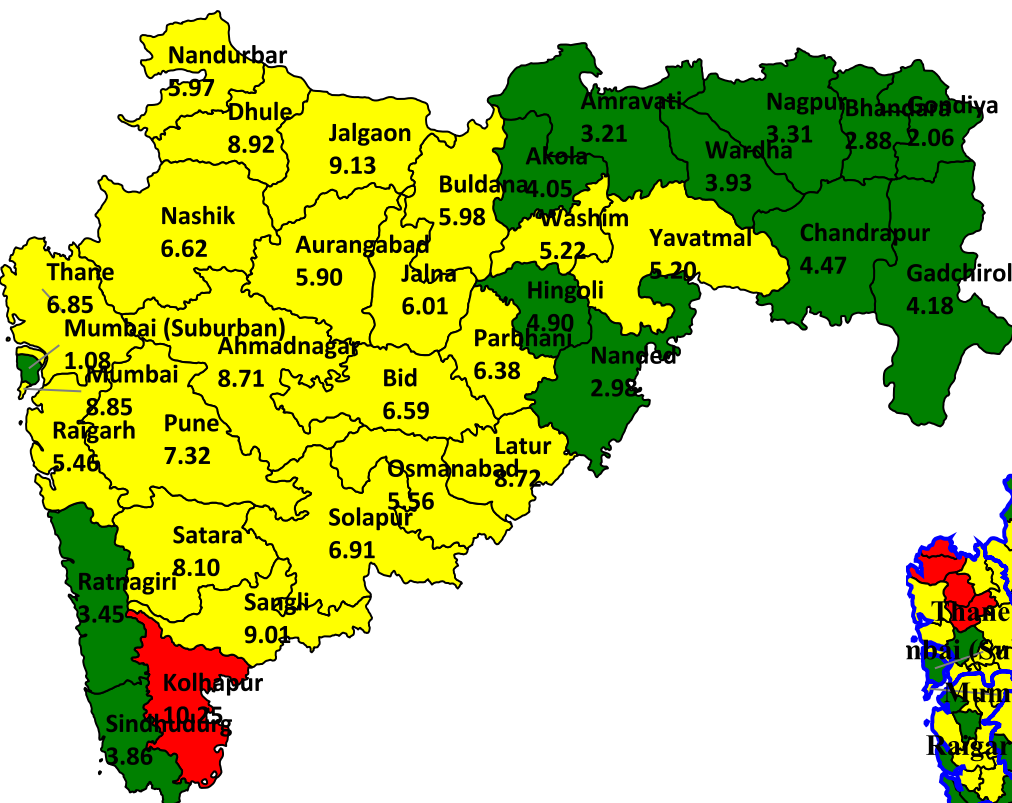


NER



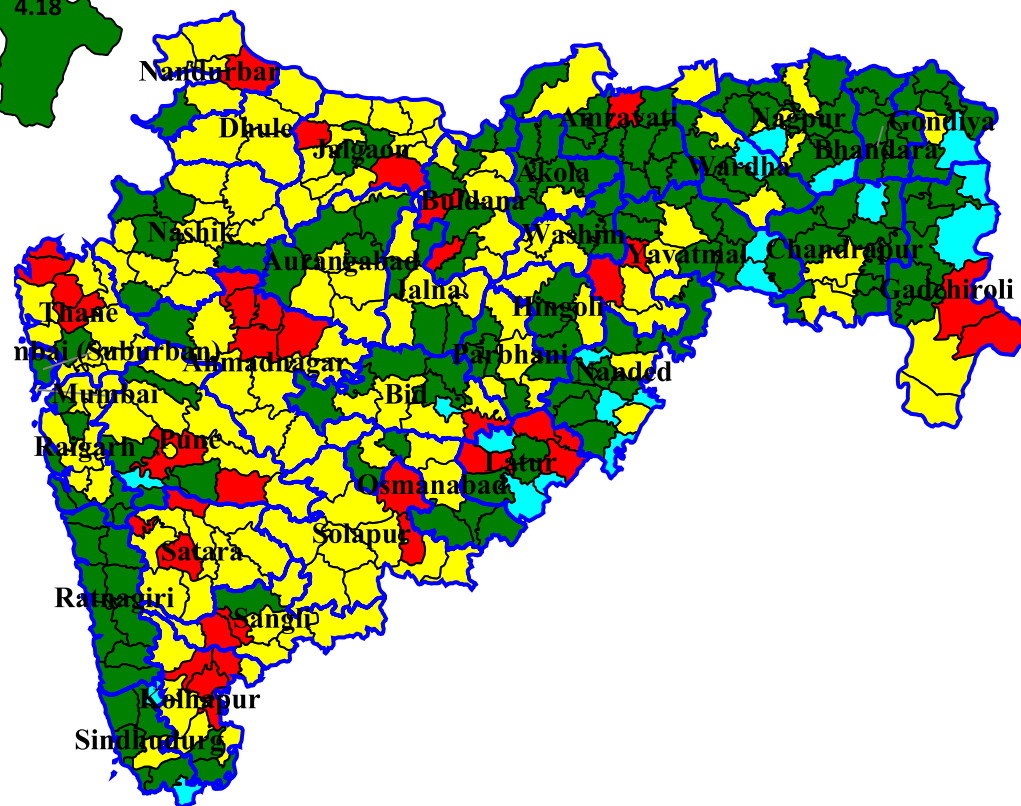
# Gender Gap (%) in enrolment at Upper Primary level, 2010-11

## By districts

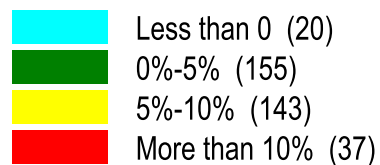


## Gender Gap Table

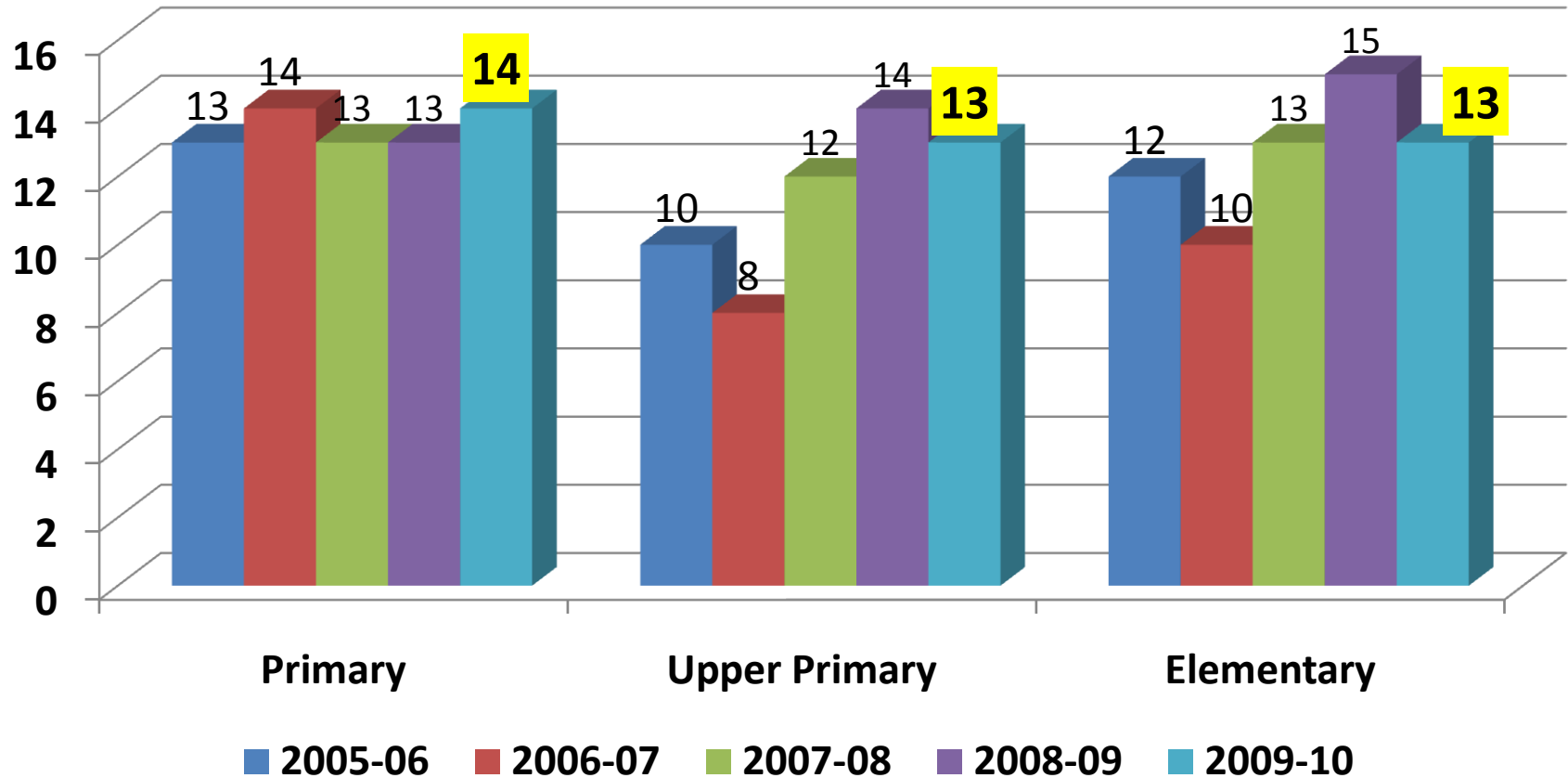
## By talukas



### Total



# Education Development Index (EDI) <sup>33</sup>- Trends in Maharashtra's rank in India



**Maharashtra's rank in India at Primary ,Upper Primary and Elementary levels varies over the compared period**

# Data Quality

- Data Quality means the degree of excellence exhibited by the data in relation to the actual scenario.
- The state of completeness, validity, consistency, timeliness and accuracy that makes data appropriate for a specific use

# Parameters of Data Quality

- **Completeness :**
  - Fully filled and no information should be blank
- **Validity :**
  - Same information if collected by anyone
- **Consistency :**
  - Not changed and match with some parameters
- **Timeliness :**
  - Supply on time
- **Accuracy**
  - Correct and same information – No fudge

# Why data quality is important ?

- DISE support a strong data base for Implementation of RTE
- Data is being used in preparation of Annual Work Plan and Budget (AWP&B) of SSA
- Various activities of SSA such as incentives, grants, teacher management are based on DISE data
- Provide education indicators from national level to school level
- Data will be accessible by others and used for comparisons.
- Critics will look weaknesses.
- Reputation of the system

# Where errors occur ?

- At the time of DCF filling
  - Understanding Questions : concepts/definition/ : Whether they are clear or not ? :
  - Factually wrong information
  - Mistake in writing
    - 19-91,16-61, 34-43
    - One column to another column (Boys-Girls,SC-ST)
    - One question to another question
  - Blank information – Missed critical information
  - No response
  - Legible information
  - No checking by others

# Common errors ?

- At the time of DCF filling
  - Number of teachers
  - Classrooms and infrastructure facility
  - School building
  - Enrolment (SC/ST)
- At the time of data entry
  - Data entry : 19-91 ,1-10, Extra digit
  - Wrong school
  - School missed

# Why quality suffers?

- More than 90% data is correct but our target is for 100%
- 5% sample checks also proved this
- Who are mainly involved ? Teachers , Kendra Pramukh , and MIS team, SSA
- Other : Block and district level SSA/Education officials
- Teacher capacity : Understanding concept and definitions
- Teacher attitude : Routine activities
- Supervisory machinery : No checks

# How we can improve quality ?

- Coverage- List of schools, Monitor by list, Strategy for private schools
- Training : A training workshop is crucial for ensuring successful data collection and teachers and supervisor (KP/EO) should be trained together to ensure consistency in the instructions received . DCF, definitions, common mistakes, instructions, checking by supervisors
- Filling of DCF : Based on records, legible, No cutting/over writing, check as per definitions,
- Check by other teachers and compare with previous year format
- Sharing with community
- Put all DISE related papers in one file

# How we can improve quality ?


- *Kendra Pramukh* : Backbone of the system , Double checking – Data accuracy and completeness , legibility
- 100% checking Key data : (0% tolerance) with records
  - School Management, Category, Area (Rural/Urban), Medium of instruction
  - No response : Not a single
  - Lower and higher class
  - Check points (Enrolment/Teachers)
  - All information should be checked with record and physically verified
- Cross check of negative information
  - Facility not available
  - Higher repeaters ,
  - High Gender Gap

# How we can improve quality ?

- Encourage teachers to ask questions/helpline
- At the time of data entry at block level
  - Consistency checks (Annex excel sheet)
  - Outlier – Unusual information
- After data entry : Block officials :
  - Match with establishment records, Common info
  - Teacher info –All details
  - Check with previous year data (Excel sheet and find gaps)
  - School card printing and recheck (Double checking)
- **Data checking and cleaning can be a time-consuming process, but it is critical to ensuring reliable results.**

# How we can improve quality ?

- Same at district level
- Dissemination of information
- Reports, table, School report card at notice board of schools in A3 size
- Analysis ,sharing and discussion
- Sharing with media, newsletter
- Involvement of Education department officials
- If you will use and share with others quality will improve automatically



Thank You

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