

# Management Information System (MIS)

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# Focus

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- Information System : Why it required ?
- Needs of SEMIS
- About SEMIS
- Its Requirements
- Points to remember to maintain quality of Data
- Data Quality – At present
- Strategies for year 2012-13
- Tentative Schedule for SEMIS implementation
- Few Indicators
- Tables for AWP & B
- S<sup>3</sup>- Tool for Planning



# Information System

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- Each and every Field officers maintain their registers or Diary with the information related to :
  - Schools
  - Enrolment by Caste & Category
  - Classrooms / Sections
  - Infrastructure like Water / Toilets / Furniture
  - Teacher (Subject Wise/ Trained)
  - Examination results etc.



# Information System

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- To capture these data's , field level officer collect information from the schools established in remote areas.
- It takes more than a week time to collect these information from each schools, and another week time to consolidate these data's.
- It means that we required some sort of system to consolidate these type of data's and generates report as per our requirement whenever we needed.



# Information System

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- This type of system is already given to you by Govt. of India i.e. **SEMIS (Secondary Education Management Information System)**.
- This system works on DCF (Data Capture Format ) given to you by MHRD
- To use this system, get your DCF filled correctly by each school and feed into the System and you will get the reports generated as per your requirement.



# Information System

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- What you have to do is ,only concentrate on the quality of data which is coming from school in the form of DCF
- After maintaining the SEMIS software you will see the result, that the data which is coming manually in a weak from a field can be generated within a minute at your district/state office.
- If you are not capable to generate the required report at district level, ask your state MIS coordinator to generate the report and sent to you.
- For any help, your state MIS coordinator can contact Edcil Tsg (MIS Cell) for further assistant



# Why SEMIS ?

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- You at field level , collect and analyze information on the education system to improve planning, resource allocation, monitoring , policy information and decision making.
- You required to monitor that all secondary schools should have physical facilities and trained teaching staff.
- You should ensure that each schools equipped with infrastructure like, Black Board, Furniture, Libraries, Science & Mathematics Laboratories , computer labs, toilet cluster etc.



# About SEMIS

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- Its an online software required an internet enabled computer system to operate.
- Can access from office, home, cyber cafe etc.
- Consists Secondary and Higher Secondary schools level information.
- Capable to manage and generate education related information for planning , monitoring and resource allocation.





# Requirement

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- **Master list** : List of all schools executing class IX – XII (Government or private)
- **Data Capture Format** : Printing of DCFs in regional language
- **Distribution of DCFs** : Ensure the distribution of DCF to all schools listed in Master lists
- **Collection of DCFs**: Ensuring collection of filled DCFs from all schools
- Computer with good internet connectivity
- User Name & Password to access SEMIS



# *Points to remember to maintain quality of data*

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- Before starting Data entry of DCFs on SEMIS system, kindly ensure that the following fields is filled correctly :
  - School Category / Funded By / SMDC related information
  - Number of Classroom in each grade should match with classroom status given in Infrastructure column and in Condition of classrooms (Pucca, Major & Minor)



# *Points to remember to maintain quality of data*

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- Location of Schools Rural / Urban
- Enrollment with Caste , gender should match with Enrolment in Single age in Classes VIII, IX , X, XI and XII
- Teach Provision of Regular / Part Time teacher should match with Number of Teachers given in Educational Qualification details
- Ensure that each column in School facilities like Labs / Laboratory / Toilets / Water / Library room / HM room etc filled with Y/N and Number of rooms as and were required.
- Examination results



# *Points to remember to maintain quality of data*

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- Before freezing your data, get your data checked by State so that there is no inconsistency left
- Before freezing get your **District Report Card** from state for re-checking. The card will show the comparison of your data with last year data.
- After checking all parameters given in Report Card freeze your data.



# Tentative Time Schedule

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- Printed of DCFs should completed by 31<sup>st</sup> July of each year.
- Master list to be prepared by each District for each schools executing the class IX-XII for Government / Private Schools by mid of August.
- Training should be provided to all officers / school head masters for collecting the DCFs from school , so that before receiving the form it should free from inconsistencies , by 31<sup>st</sup> August of each year
- DCFs form should be distributed to all schools listed in the Master list by 25<sup>th</sup> September of each year
- The district level officer should ensure that the DCFs should collected from each schools listed in the Master list by 15<sup>th</sup> October .



# Tentative Time Schedule

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- After collection of DCFs , the 5% sample DCFs should be verified by District officials by 30<sup>th</sup> October.
- Data entry should be completed at district level . To maintained the quality of data, no outsource for data entry should be initiated at any level for data entry. The data entry should be completed by 30<sup>th</sup> November.
- Re-checking the data , removing the inconsistency and generation of reports should be done by 15<sup>th</sup> December.
- After checking and removing inconsistency , the finalization report should be sent to State by 20<sup>th</sup> December.
- The State should check the inconsistency and quality of data entered . After checking the state should intimate the district to freeze their data by 31<sup>st</sup> December





For Any Help  
regarding SEMIS  
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# Importance of Education Indicators





# *Importance of Education Indicators*

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Educational indicators are the mirror of educational development in a nation. These indicators are common worldwide such as, Gross Enrolment Ratio (GER), Dropout Rates, Gender Parity Index (GPI), Gender Gap, Pupil Teacher Ratio (PTR), %age of Trained Teachers, Literacy Rate and per capita expenditure on education etc. Through these indicators, we can rank a nation at appropriate place in the field of education.



# Gross Enrolment Ratio (GER)

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- It shows the coverage of population in a particular school going age group.
- It shows level wise coverage, we also measure it in terms of SC, ST and in rural areas.
- In educationally developed countries it remains 100%.
- This shows full coverage of eligible school going population.
- It decline as we step on lower to higher level of education.



# Importance of Education Indicators

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**Dropout Rate** : The lower dropout and higher retention are the good sign for a nation.

**Gender Parity Index** : It shows gaps between boys and girls coverage.

**Per capita expenditure on education** : It shows that the educationally developed countries spend more on education and educationally backward countries less.



# Formulas to Calculate Education Indicators

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## GER of classes IX-X

$$\frac{\text{Enrolment in classes IX-X}}{\text{Population in the age group 14-16 year}} \times 100$$

## NER of classes IX-X

$$\frac{\text{Net enrolment in classes IX-X (14-15 Years)}}{\text{Population in the age group 14-16 years}} \times 100$$



## **Gender Parity Index (GPI)**

Ratio of the female –to-male values of a given indicator. A GPI of 1 indicates parity between both sexes.

### **GPI at Secondary Level**

$$\begin{array}{l} \text{GER of Girls in classes IX-X} \\ = \text{-----} \\ \text{GER of boys in classes IX-X} \end{array}$$



## Gender Gap at Secondary Level

$$= \frac{\text{Enroll of boys in IX-X} - \text{Enroll of girls in IX-X}}{\text{Total Enrolment in IX-X (Boys + Girls)}} \times 100$$

## Dropout

Pupil who leaves school before the completion of a school stage or leaves at some intermediate or non-terminal point of a given level of education (school stage).



## Pupil-Teacher Ratio (PTR)

Average number of pupils (students) per teacher at a specific level of education in a given school-year.

PTR

$$\begin{array}{c} \text{No. of students in classes IX-X} \\ = \text{-----} \\ \text{No. of teachers teaching classes IX-X} \end{array}$$



## Trained Teacher

A Trained Teacher is one who has successfully undergone a course of training through a recognized teacher training institute.

### Percentage of trained teachers at Sec Level

$$\begin{aligned} & \text{No. of trained teachers at Sec level} \\ = & \frac{\text{-----}}{\text{Total No. of teachers at Sec level (T+UT)}} \times 100 \end{aligned}$$





## Transition Rate from Class VIII to IX

$$= \frac{\text{Enrolment in Class IX – repeaters in class IX}}{\text{Enrolment in Class VIII in the previous year}} \times 100$$

## Dropout Rate for Secondary

$$= \frac{\text{Enroll in Class IX in 2009-10 – Enroll in Class X in 2010-11}}{\text{Enrolment in class IX 2009-10}} \times 100$$

## Retention Rate for Secondary

$$= 100 - \text{Dropout Rate}$$

