HYDROLOGY PROJECT
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Training module # SWDP - 50

How to work with HYMOS in a network environment

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with
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1. Module context

While designing a training course, the relationship between this module and the others, would be maintained by keeping them close together in the syllabus and place them in a logical sequence. The actual selection of the topics and the depth of training would, of course, depend on the training needs of the participants, i.e. their knowledge level and skills performance upon the start of the course.

2. Module profile

Title	:	How to work with HYMOS in a network environment
Target group	:	HIS function(s): ……
Duration	:	x session of y min
Objectives	:	After the training the participants will be able to*:*
Key concepts	:	•
Training methods	:	Lecture, exercises
Training tools required	:	Board, flipchart
Handouts	:	As provided in this module
Further reading and references	:	

3. Session plan

No	Activities	Time	Tools
1	***Preparations***		
2	***Introduction***:	min	OHS x
	Exercise	min	
	Wrap up	min	

4. Overhead/flipchart master

5. Handout

Add copy of the main text in chapter 7, for all participants

6. Additional handout

These handouts are distributed during delivery and contain test questions, answers to questions, special worksheets, optional information, and other matters you would not like to be seen in the regular handouts.

It is a good practice to pre-punch these additional handouts, so the participants can easily insert them in the main handout folder.

7. Main text

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How to work with HYMOS in a network environment

1 Working with HYMOS in a network environment

1.1 Network environment at the SPDCs/RDPCs

All data processing activities under Hydrology Project is being carried out on computers with Microsoft Windows 95/98/2000/NT as the operating system depending on the type of Data Processing Centres and the time at which the systems were bought. All the SDPCs/RDPCs will essentially have Windows NT or equivalent environment as about 4 to 6 individual computers would be operational at these centres together with attached GW Data Processing Centre and/or the State Data Storage Centre. Since this would be a substantial set-up it is appropriate to have all the computers and peripherals connected with the network so that the operations can be smooth and efficient and very importantly to optimise the resources used for printing, backing up etc.

In such a situation of networked environment it is very important to establish the protocols and procedures for working in general and for processing the data using HYMOS in particular. If such procedures are not evolved and adhered to then it may result in confusion, duplication of data files and in all an inefficient working atmosphere. Few things which are extremely important are: (a) availability of well-defined databases on the network, (b) specified user profiles and controlled accessibility to various databases, (c) rights to various users on read, write, deletion activities, (d) transfer of data from temporary databases to permanent databases and vice-versa and (e) maintenance of fragmented SWDES databases & HYMOS transfer databases received from the Divisional Data Processing Centres. Following sections outlines these important aspects.

1.2 Controlled accessibility to HYMOS databases

Since there will be more than one officer designated for processing the data at the SDPCs/RDPCs, it is appropriate that every basin in the state or region is earmarked to one officer (Hydrologist). In case there are more basins, one officer may look after the processing of data of more than one basin. It may however be required that one more person is attached with the main person to ensure adequate support in case of absence of the main person. That is to say that there would be one First Officer and one Second Officer responsible for all the data processing within any database. The Second Officers may be working as First Officer for another database, if so required. The primary responsibility of processing of data in any database would be of the First Officer but in periods of long absence or if additional support is required the Second Officer will also work on that database. The idea is that the First Officer will generally be take the primarily responsibility to finalise the data assigned and the Second Officer would be available for additional support, if required.

Apart from the individual river basin databases, there will also be one common database for the whole State in the case of the SDPCs. This unified database is simply the aggregation of various individual basin's databases, within the State. Responsibility for maintaining such database is also to be given to one of the First Officer (the Hydrologist) working at the SDPC. This database is meant primarily to consolidate the data finalised in different individual basin databases at one place. This is basically to enable compilation of information for the whole state or region and for

As such all the Officers designated for particular databases will have well-defined User Profiles authenticating them to work with various databases. The databases will also be protected against deletion or editing from outside the HYMOS

1.3 Database rights to various users

Individual river basin HYMOS databases will normally be under the controlled of the designated First officer and if required also the Second Officer. The databases must therefore be fully accessible by these two hydrologists for all data organisation, validation, correction, completion, compilation and reporting features. All the data pertaining to the individual basin databases would be finalised by the First Officer with help from Second Officer, if required. Any other user should not be given any editing rights unless specifically required. The other hydrologists working on neighbouring river basins can be given rights to view or export data for the purpose of reference and use in their own databases.

For maintaining the combined or unified database for the state, the responsibility of exporting the authenticated data from the individual river basin databases must lie with the respective First Officers while its import into the unified database must be done by the Officer maintaining it. The rights for editing and processing of data in the unified database must only be with the Officer who maintains it. Other hydrologists working on individual river basin databases must have the rights to only view or export the data from it.

1.4 Transfer of data from temporary databases to permanent databases and vice-versa

It is required that the responsibility of transfer of all the authenticated (finalised) data from the temporary databases of individual river basin databases to permanent databases (in Data Storage Centre) is given to the First Officer of the respective databases. Thus they would be directly responsible for any data being sent to the data storage centre for permanent archiving. Similarly, standing permission to retrieve data from the data storage centre for the purpose of reference must be available to the First officer.

1.5 Maintenance of fragmented SWDES databases & HYMOS transfer databases

Fragmented SWDES databases & HYMOS transfer databases will arrive every month from various DDPCs. The monthly incremental raw data in the form of fragmented SWDES databases will have to be consolidated in the respective SWDES database of each SDDPC. Similarly, the monthly incremental processed data in the form of HYMOS transfer database pertaining to individual river basin or part thereof would have to be imported in the respective river basin's database. However, it is very essential to keep a strict procedure to store all these incremental data streams arriving from various DDPCs at a pre-defined location. Proper directory structure has to be maintained for storing all the data files received every month in a categorised manner. Two main categories of folders which may be used for this purpose can be (a) FRAG_DB and (B) TRANS_DB. Under these folders, one more level can be for the year and the month to which the databases belong, like – 2001_JAN, 2001_FEB etc.. The fragmented and transfer databases can then be arranged under these folders. Since the fragmented and transfer database files from every SDDPC would bear proper identification, there will not be any problem to reach to any desired file at moment of time. Contents of all such folders must also be adequately protected from any tempering from an external user.