

REPORT ON DEMARCATION OF PRIORITY SUBWATERSHEDS
IN THE CATCHMENT OF NIZAMSAGAR RIVER VALLEY
PROJECT, ANDHRA PRADESH

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Nizamsagar River Valley Project was taken up under the centrally sponsored scheme of soil conservation during the 4th Plan. The objective has been to plan soil conservation measures for effective treatment of the problematic areas in order to minimise silt yield from the catchment. Ultimately around agricultural development of the catchment area is envisaged.

In view of the vast areas involved in each of the R.V.P. catchments against the limited resources of technical personnel and funds, it has been decided to concentrate soil conservation works on priority basis in such of the subwatersheds that are highly problematic and yield higher silt loads.

The task of demarcation of priority subwatersheds has been assigned to the All India Soil & Land Use Survey Organisation, Department of Agriculture.

The field work was carried out by Bangalore Regional Centre of All India Soil and Land Use Survey (Deptt. of Agriculture) for demarcation of priority sub watersheds. A total of 7,61,601 ha. falling in Andhra Pradesh part of the catchment of Nizamsagar have been surveyed and priority sub watersheds delineated. The area surveyed and reported covers subcatchments of Baldi, Manjra and other streams and their tributaries. Most of the catchment area falls in district of Medak with small parts in Nizamsagar and Hyderabad district. The area is covered by Survey of India toposheets No. 56F/12,16; 56G/9,10,13,14; 56J/3,4,7,8 and 56K/1,2,3,5,6. The area under report is shown on an index map:

Separate report has been prepared for catchment area falling under Karnatak State. (Report No Agri-357)

Priority Fixation:

As shown in Table 2, the subwatersheds have been graded in order of priority using "silt load index". Higher values of "silt load index" suggest higher priority and vice versa. Subwatersheds have been grouped into five categories to indicate their priorities as given below:

<u>Priority Category</u>	<u>Silt load Index Range</u>	<u>No. of sub water-sheds</u>	<u>Area in Hectares</u>	<u>% of total area</u>
1. Very High	Above 1500	28 ✓	1,01,918	13.4
2. High	1201-1500	20 ✓	89,638	11.8
3. Medium	801-1200	35 ✓	1,78,143	23.4
4. Low	401-800	55 ✓	2,49,840 2,49,040	32.7
5. Very low	Below-401	34	1,42,662	18.7
Total		172	7,61,601	100

It is seen from the above table that the whole of catchment area of 7.62 lakh ha. falling in Andhra Pradesh has been divided into 172 subwatersheds. Out of these 28 subwatersheds covering a total area of 1,01,918 ha. (14.4% of the total catchment area within Andhra Pradesh) fall under very high priority. The subwatershed cover nearly the northwest part of catchment within Andhra Pradesh, along Nandhra river and around Sangareddi-pet. Table 2 shows the grading of various subwatersheds under very high, high medium, low and very low priority categories.

For purposes of conservation measures in the catchment, subwatersheds falling under very high and high priority categories can be selected in the first instance. These two categories have been shown in the maps by suitable symbols. Both the categories put together cover a total area of 1,01,556 ha. i.e. 25.2 percent of the total area within Andhra Pradesh.

In order to initiate detailed soil surveys for providing basic soil and land resource data for proper planning and execution of soil conservation programmes, it is proposed to take up soil surveys in the following watersheds in the first instance. Two blocks have been selected for this purpose.

<u>S.No.</u>	<u>Sub-watershed code.</u>	<u>Area in Hectares</u>	<u>Silt load index</u>	<u>Relative priority</u>
BLOCK-1				
1.		(A.P.)		
1.	Nf 2a	1328	1884	1
2.	Nf 2b	4387	1809	3
3.	Nh 1a	2616	1700	4
4.	Nf 2c	1368	1779	5
5.	Ng 1b	2294	1767	6

6.	Ng 1d	3220	1733	8
7.	Ng 1a	4509	1693	12
8.	Nh 1b	2737	1690	13
9.	Nf 2e	4025	1600	14
10.	Ng 1e	2415	1635	18
11.	Nh 1c	2616	1630	19
12.	Ng 1c	4870	1562	23
13.	Nh 1d	3260	1532	28
14.	Ng 1f	4347	1415	33
15.	Nf 2g	5152	1267	41
16.	Nf 2d	1449	1256	43
17.	Nf 2f	32160	1101	61
18.	Nf 2h	4991	1051	65
Total Block I		58844		

BLOCK-II

1	Nh 2c	4347	1701	10
2.	Nh 2b	4508	1672	15
3.	Nh 2d	4508	1650	17
4.	Nh 2e	4186	1622	22
5.	Nh 2a	2415	1308	37

Total Block II **19964**

It is proposed to take up Block I for detailed soil survey with in the ^{1st} instance and will be followed by Block II. The two blocks together cover about 78818 ha. or nearly 40.6 of the area falling under very high and high priority categories.

The priority grading number of the subwatershed does not essentially necessitate that the detailed soil survey and soil conservation works

should follow the same order. They are meant primarily to show the relative severity of the problem in the different subwatersheds. Since they all comprise first priority subwatersheds, detailed surveys and soil conservation works may be started from upstream in any order to suit local conditions and convenience.

It is expected that the priorities fixed for the reported part of Vizansagar catchment, as well as the high priority subwatersheds selected above for subsequent soil surveys shall meet the approval of the state Govt. of Andhra Pradesh. Approval of the above selected subwatersheds from the State Govt. is requested. Any suggestions or modifications that State may have shall be very much appreciated.

If further clarifications and explanations are desired communications would be welcome by the All India Soil & Land Use Survey Organisation, Dept. of Agriculture, I.A.S.I. Building, New Delhi-110012, and Asstt. Soil Survey Officer, Redd and Laterite Soil Region, All India Soil and Land Use Survey (Deptt. of Agri.) Habbal, Bangalore, Karnatak. Any comments and suggestions would be appreciated.