Soil Survey Carried out

Reconnaissance Soil Survey: - The Reconnaissance Soil Survey was carried out on topo sheet with scale of 1:50,000 in the entire command. One open profile and three auger bores are taken in one grid of 1000 ha. Land Irrigability Classes were reported by number of reports each of for the small hydrological units of area.

Detail Soil Survey: - The Detail Soil Survey was carried out on SOI sheet with scale 1:1320. One open profile and three auger bores are taken in one grid of 250 ha. Land Irrigability Classes with higher precision were reported by number of reports each of for the small hydrological units of area.

Particular	Purpose	Gross Command Area (in lack ha.)		No of Reports Prepared (for office use only.)
RECONNAISSANCE SOIL SURVEY (R.S.S)	To appraise the Land area into Land Irrigability Classes (Class I to VI)	Phase-I	5.54	**41** (Soil Classification and Land Irrigability Appraisal report based on RSS)
		Phase-II	25.13	
		Total	30.67	
DETAILED SOIL SURVEY (D.S.S)	To distinguished the area under LIC- V into LIC- IV or LIC-VI	Phase-I	5.54	**73** (Soil Classification and Land Irrigability Appraisal report based on DSS)
		Phase-II	3.99	
		Total	9.53	

Land Irrigability Classification

❖ Land Irrigability Classification:

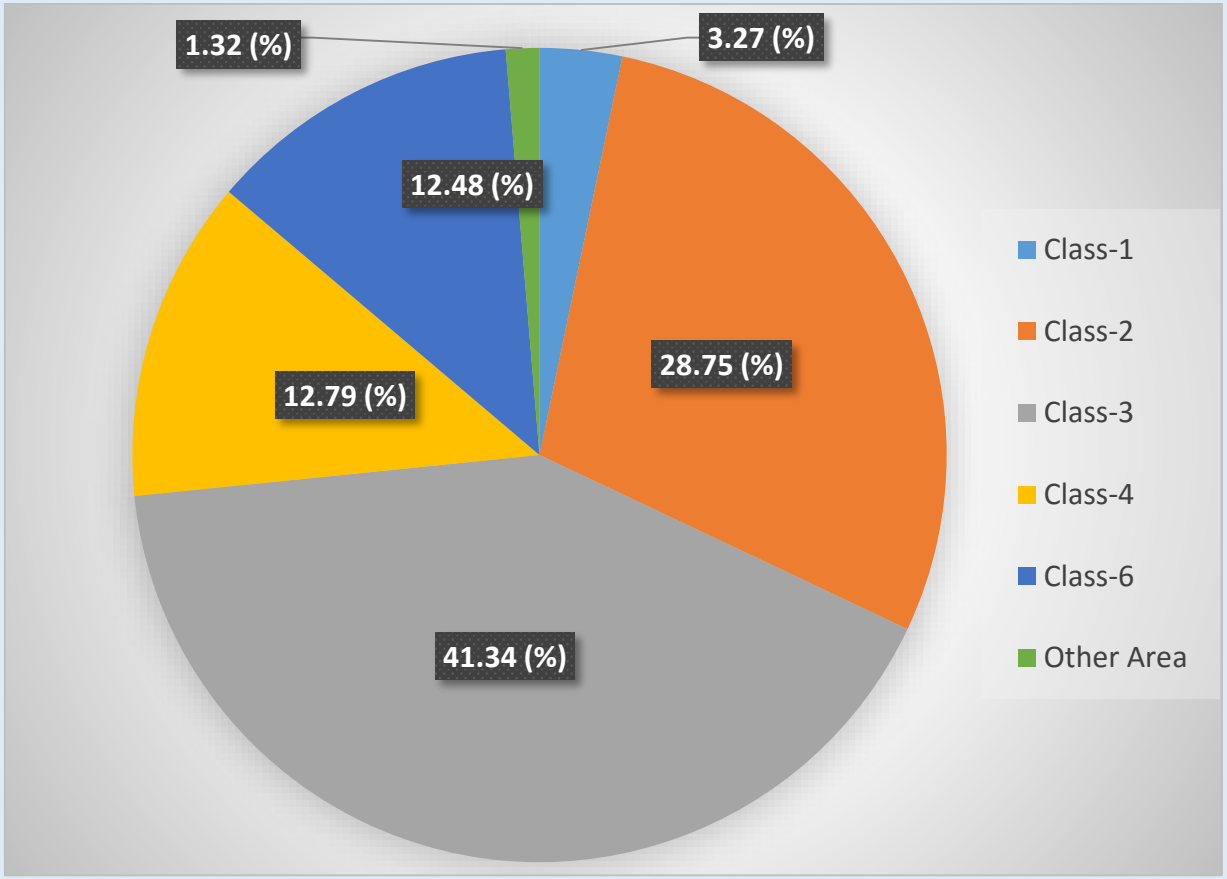
Considering the soil and land parameters, a system of 'Land Irrigability Classification' is developed that provide guideline for irrigation procedure. The land area is defined/differentiated into six classes in the regards of sustained use under irrigation as per the prescribed criteria and procedure. The 'Land Irrigability Appraisal Reports' are prepared for particular areas based upon the field as well as the laboratory data collected during the course of survey adopting methodology as recommended in "Soil Survey Manual 1970", published by IARI, New Delhi.

❖ Criteria for Land Irrigability Classification:

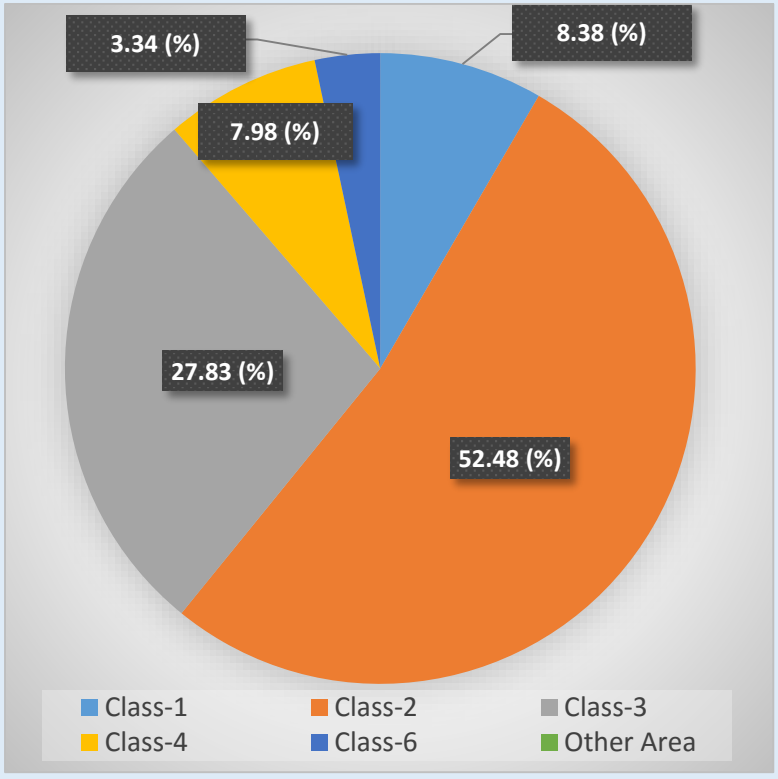
Sr. No.	L. I. Class	Slope (%)	Soil Texture	A.W.H.C. (cm/m)	Soil Depth (cm)	S.S.W. depth from Ground level (m)	Soil Salinity (EC) (ds/m)	Alkalinity (pH)	Remarks
1	**Class-1**	< 1	Sandy Loam	>12	> 90	> 5	< 1	6.6 to 7.3	Lands that have few limitations for sustained use under irrigation
2	**Class-2**	1 to 3	Loamy Sand	9 to 12	45 to 90	3 to 5	1 to 1.50	7.4 to 7.8	Lands that have moderate limitations for sustained use under irrigation
3	**Class-3**	3 to 5	Sand Clay	6 to 9	22.5 to 45	1.5 to 3.0	1.51 to 2.50	7.9 to 8.4	Lands that have severe limitation for sustained under irrigation
4	**Class-4**	5 to10	Sand Clay	2 to 6	7.5 to 22.5	0 to 1.5	2.51 to 3.0	8.5 to 9.0	Lands that are marginal for sustained use under irrigation because of very severe limitations
5	**Class-5**	>10	Any Texture	< 2	< 7.5	-	> 3.0	> 9.0	Lands that are temporarily classed as not suitable for sustained use under irrigation pending further investigation
6	**Class-6**	Lands not suitable for sustained use under irrigation							

(Source: Soil survey manual, IARI, New Delhi, 1970)

Land Irrigability Classification of S. S. P. Command Area, GCA: 30.67 Lac ha.



Land Irrigability Classification of Phase-I
Command Area, GCA: 5.54 Lac ha.



Land Irrigability Classification of Phase-II
Command Area, GCA: 25.13 Lac ha.