

IRRIGATION AND GROUND WATER

(i) Irrigation

Tube-wells are the major source of irrigation in the district. As from the table shows that total irrigated area in the district is 1, 94,976 hac. which mean that 100% area sown are irrigated. The irrigation intensity of the district is 180%. Out of total 194336 hac.area, 85267 hac. are irrigated by canals and tubewells both and 104321 hac. area is irrigated by tubewells alone.

Source of irrigation in district is presented in table below. The table reveals that through the currently available source of irrigation and the area irrigated with the respective source.

Table-11: Source wise area under irrigation

Sr.No.	Source Of Irrigation	Area Irrigated (Hac)
1	Canal	4748
2	Tubewells	1,04,321
3	Canal+Tubewells	85,907
	Total	1,94,976

Table-12: The block wise number of tube wells and pump sets:-

Sr.No.	Block	Electric Operated	Diseal Operated	Additional Bores
1	Moga-II	7435	783	456
2	Bagha Purana	9571	1363	469
3	Moga-I	9300	1495	1230
4	Nihal Singh Wala	9228	549	782
5	Dharamkot	14128	3022	3372
	Total	49662	7212	6309

Source www.punjab.gov.in

It is clear from the above table that major source of irrigation in the district is Tube well, canal + tubewells and very small area i.e. 4748 hectares are irrigated with canal.

(ii) Ground Water Resources

Ground water resources estimation of the district was done as on 31-3-2004 as per GEC-1997 for each individual block. Stage of ground water development in the district is 177%. The ground water development in all blocks of the district has exceeded the available recharge and thus all the blocks have been categorized as “over exploited”. Moga –I and Nihal Singh Wala are showing more than 200% of ground water development. Block Kot Ise Khan has relatively less development of ground water among all blocks i.e. 138%. The ground water development is primarily due to the present cropping pattern which lays excessive demand for ground water in the absence of assured canal irrigation and less rainfall. Net ground water availability of the district is 122,038 ham. In total 64,800 ham water is being utilized from static water resources of the district.

Table-13: The block wise ground water resource potential in the district (as per GEC-97):

Sr. N	Block	Net Annual Ground Water Availability (Ham)	Existing Gross Ground Water Draft for Irrigation (Ham)	Existing Gross Ground Water Draft for all uses (Ham)	Allocation for domestic industrial upto next 25 years (Ham)	Net Ground Water Availability for future development (Ham)	Stage of Ground Water Development (%)
1	Bagha Purana	25680.352	44361.178	44717.417	480.29833	-19161.124	174
2	Dharamkott	36500.726	50222.402	50592.834	499.4346	-14221.111	138
3	Moga-I	20851.86	42195.962	42806.805	706.90613	-22051.008	205
4	Moga-II	20889.262	38580.43	39104.94	590.5007	-18281.677	187

			8	3	8		
5	Nihal Singh Wala	18116.509	39180.11	39446.07	358.5786	-21422.189	217
	Total	122038.71	214540.1	216668.0	2635.718	-95137.11	177
				8	5		

Source Central Ground Water Board, Chd

Table-14: Block wise average ground water level fluctuation in Distt.Moga (Mts.) FROM 1997-2007

Sr.No.	NAME OF BLOCK	AVG./YR.
1.	Moga-I	- 1.18
2.	Moga-II	- 1.28
3.	Bagha Purana	- 0.71
4.	Nihal Singh Wala	- 0.97
5.	Kot-Ise-Khan	- 1.76
	District Average	- 1.18

Table-15: Position of ground water level in Distt. Moga (2007-2008)

Sr.No.	BLOCK	WATER LEVEL IN MTs.
1.	Moga-1	24.02
2.	Moga-II	23.13
3.	Bagha Purana	12.08
4.	Nihal Singh Wala	17.05
5.	Kot-Ise-Khan	18.90
	District Average	19.03