

Irrigation and Ground Water

Tube wells (96%) are the main source of irrigation although some part of the district is also irrigated by canals (2%) and other sources of irrigation (1.8%) such as lifting of water (Figure 11). The ground water resources are over exploited due to large scale pumping by tubewells, resulting in decline of water table at the rate 16cms to 140 cms per year, so the ground water level is generally deep. Based on ground water balance of the district, all the 8 blocks are categorized as **DARK**. (not safe for exploration)

Ground Water Quality for Irrigation

The ground water in 15% of the area in Patiala is suitable for all conditions where as in 29% area, the ground water is unsuitable for Irrigation (Figure 12).

Quality and Quantity (depth of water table) of ground water in Patiala District could be the most limiting factors in sustaining the agricultural production system.

Figure 11

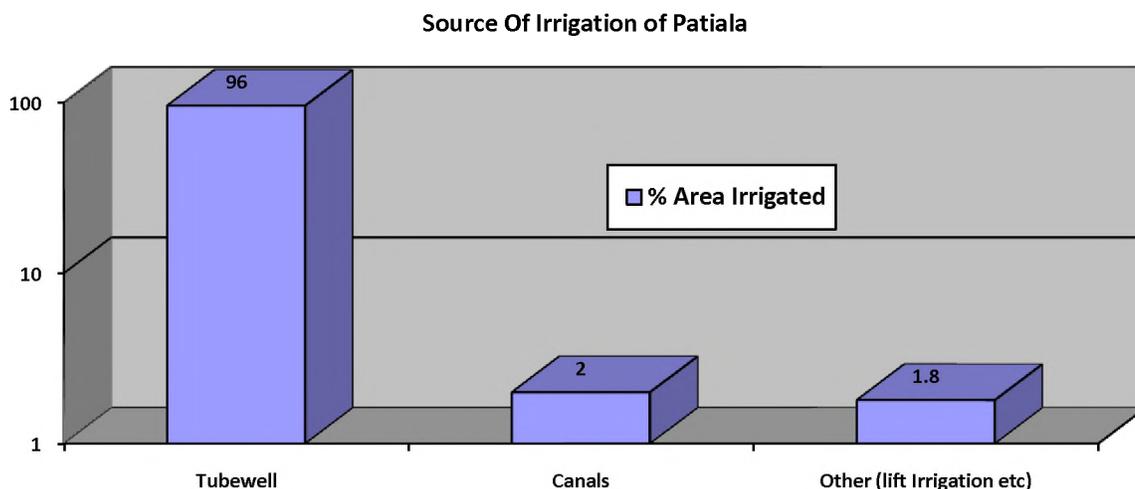


Figure 12

Category	Ground water Quality		Area (%)
	EC(mmh o)	RSC (meL- 1)	

Suitable for all conditions	1 a	<2.0	<2.5	15.05
Suitable for coarse textured soil/salt tolerant crops	1b	2.0 – 4.0	<2.5	7.59
Suitable after mixing with canal water	2a	2.0 – 4.0	2.5 - -5.0	12.24
Suitable after mixing with canal water	2b	4.0 – 6.0	> 2.5	
Suitable with recommended gypsum application	3	< 2.5	2.5 – 7.5	35.90
48 (>5)	4a	2.0 – 4.0	> 5.0	29.22
Unsuitable for irrigation (7.5)	4b	4.0 – 6.0	2.5 – 7.5	
Unsuitable for irrigation (>7.5)	4c	< 6.0	> 7.5	
Unsuitable for irrigation (<2.5)	4d	> 6.0	<2.5	

