KISSAN VIKAS CHAMBER PUNJAB (Regd.)

Mandi Bhawan, Punjab Mandi Board, Sector 65-A, Mohali - 160062

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Receding ground water level and Brackish water in Punjab.

Respected Maharaja Sahib,

I want to bring in your kind notice about the grim situation being faced in Punjab by receding groundwater level and its subsequent adverse effects.

Intensive agriculture dominated by paddy-wheat monoculture has led to over exploitation of natural resources especially ground water. Out of 137 blocks in Punjab only 25 are safe,103 over exploited,5 critical and 4 semi-critical. Ground water table fell 17cm per annum in 1980s,25cm in 1990s and it was alarming high at 91cm during 2000-2005. Considering present declining trend it is estimated that water in 3/4th of the state would decline the critical level 90ft by 2020. Experts claim that state needs 52MAF water to sustain its present intensive cultivation. It has only 14.54MAF canal water leading to over exploitation of the ground water. CGWB (Central ground water board) says that ground water has fallen in about 42170 Square Kilometres in north, northeast, Central and Southern parts i.e.in 84 percent of the total area. The worst affected districts are 1)Nawanshehar 2) Jalandar 3)Kapurthala 4)Moga 5)Patiala 6)Ropar 7)Fatehgarh Sahib 8)Sangrur 9)Gurdasspur 10)Amritsar. This receding water level had put a lot of financial strain on the farmers as they had to incur a lot of expenditure on deep boring and replacing centrifugal pumps with submersible pumps. Small and marginal farmers were worst affected.

Water level has gone up in 14 percent area as it is not extracted being brackish (Saltish) and not fit for both Domestic and irrigation. These areas are pockets of Mansa, Moga, Bathinda, Mukatsar, Ferozepur, Faridkot and Fazilka. Here water level has gone up. This area lies in the southwest of Punjab.

According to CGWB, the underground water of Punjab is interconnected and it flows from Northeast to Southwest of the state at a gradient of 1ft per kilometre, but a situation is emerging that due to over exploition of ground water in the central Zone i.e. Amritsar, Kapurthala, Jalandar, Ludhiana, Fatehgarh Sahib, Patiala and Sangrur may reverse the gradient and the brackish (Saltish) water of the South East may not start flowing towards Central Punjab and pollute its sweet water. CGWB has already found traces of it in the district of Sangrur. This is really a dangerous trend. This is the high time to take remedial and preventive measures to check it. The following steps are very necessary.

- 1) Watershed management programme which is now confined to Kandi area must be extended to the state.
- 2) Harvesting of the water up to water table, not only by rain water, but by canal water should be encouraged. We need much more river and canal water for this purpose. This will help in recharging the ground water and the recharge rate of the given area should be determined on scientific way as the recharge rate is the difference between evapotranspiration and infiltration. Evapotranspiration includes evaporation from the bodies of water as well as the water lost through the respiration of the plants.

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- 3)Irrigation through underground pipes instead of open channels should be encouraged.
- 4) More stress should be given on Drip and sprinkle irrigation.
- 5) Furrow irrigation and Laser leveling should be also be encouraged.

Paddy is the main consumer of the water as it needs six times more water than Maize,20 times more water than groundnut and 10 times more water than other Kharif crops.CGWB has recommended reducing area under paddy by 10 lakh hectares.

This is the high time to start replacing Paddy-Wheat monoculture in a planned way by other crops which need less water and also less taxing on the fertility of our already over exploited soil. Horticulture and forestry if planted with new techniques of micro, drip and sprinkle irrigation can go a long way in not only saving water, but also replenishing the soil with most needed fertility.

Here, I am also of the opinion that the facts as described above about the prevailing grim situation due to the scarcity of water are brought in the notice of Central Govt and Supreme Court to convince them about the dare need of much more river water to recharge our already depleted ground water, it may help us in strengthening our case

In the end. I request you to look in to the matter and take appropriate action.

Thanking you.

Dated:-17-04-2017

Yours sincerely,

(Kulwant Singh)

President Kissan Vikas Chamber