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Agriculture Through The Prism Of Water

If an elephant fills in 85% of a room, its occupants are unwittingly conditioned to engage only with the little left-over space.

Celebrities posing to close a dripping tap reminds me of this situation. If India has to conserve water for future-gen, apart from striving to “Catch-The-Rain”, it also has to do effective demand-side management of water. Accounting for 85-89% water usage in India, agriculture, the elephant in the room, is to be specifically targeted for this, not the dripping pipe.

Our farmers thankfully rescued us from the disgraceful USA's PL-480 Food aid charity, by ushering in the Green revolution, producing 340MT of foodgrains in 2024, from 74.7MT in 1959. Our then empty granaries, have now transformed to overflowing food-godowns, with over 3 times annual food-grain requirement procured and stored, a lot of which are getting degraded or eaten by bandicoots. India now accounts for a third of global rice exports, even after giving its 80-crore people free foodgrains under government schemes for the last 5 years, since Covid. With more income & high health awareness, increased urbanisation, our dietary patterns & palate preferences have changed. Galloping diabetics have cut our cereal intake. Our plates now offer a smorgasbord of horticulture, proteins and breads. Yet, our cropping patterns have not changed.

Agriculture through the Prism of Water: India has 5000+ major dams and is also the largest extractor of

groundwater, mainly for irrigation. 25% of our energy usage is for pumping up water. India is now water stressed. Per-capita water availability has come down from 5177 m³/year in 1950 to 1341 in 2021. If the trend continues, we may soon run out of water to cater to world's largest population of human and bovines residing here.

Indian farmers mostly use the most water-wasting flood irrigation technique in paddy fields, abetted by free surface-water or free/subsidised power to pump up ground-water, making our water footprint or virtual-water usage exorbitant. To produce a unit of paddy, if Brazilian farmers use 700 litres, Indian farmers use 3000-4000 litres! Assured MSP & procurement systems in paddy abet farmers to stick to paddy. But, do we need more rice, when much of the procured rice is wasted in godowns? When India exported 20.2MT of rice in 2024-25, we virtually exported 80 BCM of water!

Sahi Fasal: So isn't it time that we look our agriculture, scientifically, through the prism of water, aiming for higher Water Use Efficiency (WUE) with better irrigation techniques, agricultural practices and crops. Isn't it time we talk about “Sahi Fasal” - the right crops suited to the agro-climatic and water conditions of the area, without compromising on the food security, nutrition requirements of India and ensuring more remunerative “net income” for farmers, rather than what is dictated by faulty, outdated, economically and environmentally unsound, but politically sensitive policies of a democratic government? Isn't it time to recast our agriculture, encouraging more pulses and edible

oil, which now is a lion share of our agriculture imports, but essential for balanced healthy diet? In a monetised economy, shouldn't we change our slogan from “More crop per drop” to “more net-income to farmers”? If the crop cannot be changed, then irrigation practices need to be changed to improve WUE and reduce the water footprint. We need to wean farmers away from water intensive crops like paddy, sugarcane etc to crops like corn, maize etc requiring less water; improve procurement & market for these alternate crops; create appropriate & adequate storage for them and frame policies for effective pricing of inputs.

Edible oil dominates our agri-import with \$17.3 Billion (45.4% of agri-imports), as 60% of India's consumption of edible oil is from imports-palm oil, soya bean, sunflower etc, which is unsustainable and strategically dangerous. We need to divert more farmers to these crops with much less water footprint. Their cropping should be incentivised by better handholding-technically, financially and with assured procurement and attractive MSP. Cooperatives and FBOs should take the lead in ushering this change.

As 85-89% of water usage is for agricultural purposes and about 5% usage is for drinking and domestic purposes, a 10% saving of water in agricultural usage will triple water availability for drinking purposes. If we ACT now, we may escape the curse of our future generations for leaving them with parched lands!

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