## Frequently Asked Questions (FAQs)

### Webinar 4: Sahi Fasal – Increasing Water Use Efficiency in Agriculture

#### 29 July, 2020

Q1. While there are plans and schemes for irrigation and technologies, how theycan be effectively delivered at the doorsteps of farmers rather than farmers having to approach them? How can farmers effectively access the technology?

**Reply:** Government of India has been implementing a number of irrigation programmes and schemes from time to time. Earlier most of them were based on the open canal system concept, but there is a drastic shift in current and upcoming irrigation programmes and schemes from the traditional irrigation method based on canal flood irrigation to the modern micro irrigation system which uses drip and sprinkler irrigation methods.

In order to spread awareness amongst farmers regarding plans and schemes for micro irrigation technologies at their door step, various States under CentrallySponsored Schemes viz. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) Scheme of the Ministry of Jal Shakti, Department of Rural Development and the Ministry of Agriculture & Farmers Welfare.Under this Scheme, States such as Andhra Pradesh andGujarat have come up with Special Purpose Vehicle (SPV) to provide subsidized micro irrigation technologies at a single window platform. This SPV is responsible for all the activities, including on-ground implementation as well as monitoring and meeting the micro irrigation (MI) targets.

NABARD has also developed extensive packages for transferring technology panaceas to farmers through its Rural Investments programs, viz. Micro-Irrigation Fund, Long term Irrigation Fund, Infrastructure Development Fund and Farm Sector Promotion Funds.

Goal 4 of National Water Mission highlights the main objective of NWM, which is to improve water use efficiency at least by 20% in all sectors, including domestic, industrial, agricultural and commercial.

In this context, National Water Mission has launched a campaign "Sahi-Fasal". This is a step to nudge the Indian agriculture to promote crops which use less water but more efficiently; have high nutritional quality and are economically remunerative to farmers, and based on a holistic and integrated strategy. Creating awareness among farmers on appropriate crops, micro–irrigation, soil moisture conversation etc; weaning them away from water intensive crops like paddy, sugar cane, etc to crops like corn, maize etc which require less water; effective pricing of inputs (water and electricity); protection of environment and assisting policy makers to improve procurement policies, creating appropriate storage facilities and markets etc are the key elements of "Sahi-Fasal".

Besides, bringing policymakers, programmers together in framing policy/ programs that promote water conservation in agriculture along with mainstream agricultural policies will aid the rapid uptake of the program among key stakeholders, improve procurement and market for these alternate crops; create appropriate storage for them, etc. ultimately leading to increase in the income of farmers. NWM has organized series of workshops on 'SahiFasal' in Amritsar (on 14.11.2019), Aurangabad (on 13.01.2020), New Delhi (on 26- 27.11.2019) and Kurukshetra (on 14.02.2020) where farmers participated enthusiastically. Punjab/Haryana has taken steps for crop diversification.

Q2. Incentivizing technology and access to technology for farmers on one side and need to incentivize farmers to use treated wastewater for irrigation and use of not just cash crops but food crops on the other side – Experience sharing with respect to example of Karnataka.

**Reply:**In case of Karnataka,farmers are still using irrigation technologies without subsidy or other incentives. They usually use treated waste water for irrigation purpose via their own way of transportation of treated waste water. Therefore, there is a need for creation of network to share knowledge amongst farmers regarding schemes and programs and establish knowledge sharing centers for reuse of treated waste water and judicious use of irrigation water through precision irrigation technologies.

#### Q3. How the standard of the treated water is to be ensured for use in agriculture?

**Reply:** Central Pollution Control Board is an apex body to set the water quality standards for treated waste water reuse for land under agriculture practices. The treated effluent must meet the norms prescribed for irrigation under Environment (Protection) Rules, 1986/Consent. A detailed document is available at https://tspcb.cgg.gov.in/Environment/General%20Standards%20For%20Discharge%20O

<u>f%20Environmental%20Pollutants.pdf</u> regarding treated water standard assurance for land of irrigation.

Q4. What is the role of minimum support price (MSP) in water saving and cropping pattern change?

**Reply:** The Minimum Support Price (MSP) is an important tool in bringing about significant change in the cropping patterns in the country. When the MSP was introduced, it aimed to play a major role in facilitating a regular livable income to agricultural laborers, both farm owning and landless. Today, it continues to play that role along being a key factor in influencing the crop selection.

One of the reasons the farmers continue to grow paddy is the assured procurement and MSP attached to it. This has resulted in more and more area being brought under paddy, at the cost of depleting water table. If proper MSP is provided to alternate less water consuming crops and if its procurement is assured, people will go for less water intensive crops.

Same is also true for Sugarcane, where effective procurement pricing at least matching, if not above, the Fair and Remunerative Price (FRP) announced by Centre or State Advised Price (SAP) promotes its cultivation in the water stressed regions of Karnataka, AP & Maharashtra. Whereas vegetables, oil seeds and pulses do not have assured price guarantee backed by effective procurement – raising the market risks for their cultivators.

# Q5.How can the pricing be made more attractive for wastewater to be used in all sectors?

**Reply:** Economic instruments play a key role in building support for reuse of wastewater. Water pricing has always been a tricky subject-given how water is a special economic good, as it is both scarce and a necessity. The rule would be to price goods that are not easily available according to their scarcity value and to price necessities based on its requirement, and hence it has to be affordable.

However, water does carry some pricing with it. We charge industrial usage and domestic usage separately. Economic incentives can be set up for the industrial sector using carrot-stick mechanisms, by increasing the slab on water prices for industrial use and at the same time, tax exemptions or other qualitative benefits can be made available to companies that follow best practices, including waste-water treatment and reuse.To begin with, these measures can be given to PSUs, thus making them act as first movers and set an industry standard.

Further, large scale industrial and private players shall be encouraged to install wastewater reuse arrangements by linking various regulatory approvals to a satisfactory level of infrastructural arrangement keeping in view with the needs and capacity of the users.

Q6. What will be the cost of solar pumps for pumping about 15000 liters water per day?

**Reply:** The cost of solar pumps for pumping water about 15 Kilo liters per day (KLD) is approx. in the range from Rs. 1.40 lac to Rs. 1.50 lac.

\*\*\*\*\*