

Water used for Irrigation: Approach for Analysis

CottonConnect's REEL and REEL Regenerative Programmes promote sustainable and regenerative agriculture and responsible resource management. The detailed data collection and source-wise analysis of water-related metrics, such as water source, water extractions, and water usage, are pivotal in enhancing farmer training and fostering a more sustainable environment within farming communities.

Key Performance Indicators (KPIs)

The KPIs related to water are:

- Reduction in water usage for cotton production
- Water productivity
- Sustainable water management practices adopted

Water Source Analysis:

The Farmer Field Book captures various aspects such as the source of irrigation, type of irrigation energy use, quantity of water used (using a set of data points) from all irrigated farmers in the programme. By examining the data associated with various water sources, such as canals and bore wells, and considering factors like the depth of the water source, horsepower (HP) of motors, and motor running duration, CottonConnect gains valuable insights into the dynamics of water supply. This comprehensive understanding allows for informed decision-making regarding the most efficient and sustainable water sources for agricultural use. The benefits of source-wise analysis include:

- **Informed Decision-Making:** Quantifying water extraction from various helps to understand water usage patterns. This data-driven approach empowers us to be guided on the most efficient and sustainable water sources and technologies for specific farming contexts.
- **Customized Training:** Source-wise analysis enables CottonConnect to tailor training programs to the unique needs of each farming community.
- **Promoting Sustainable Practices:** Data on sustainable water management practices like alternate furrow irrigation, drip, and sprinkler irrigation techniques are invaluable. These practices are crucial for reducing water wastage and enhancing crop yields. By analysing the adoption rates of these techniques, CottonConnect identifies areas where further training and support are required.
- **Resource Conservation:** Source-wise analysis encourages responsible water usage. It allows CottonConnect to advocate for the conservation of water resources and the protection of ecosystems, ensuring long-term sustainability.
- **Environmental Impact Reduction:** By optimizing water usage and promoting sustainable practices, CottonConnect contributes to reducing the environmental impact of agriculture. This includes lowering the risk of soil erosion, salinization, and pollution of water bodies.

CottonConnect's data-driven approach to water management under the REEL Programme is a powerful strategy. It facilitates informed decision-making, enabling the organization to tailor training and support programs to specific community needs. This approach promotes responsible water usage, encourages adopting sustainable irrigation practices, and ultimately contributes to a more environmentally friendly and economically viable agricultural sector. The program's holistic approach fosters farmer well-being and environmental sustainability, aligning with CottonConnect's commitment to responsible agriculture.