

# PRECISION FARMING

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## **Context:**

The Centre is contemplating to earmark Rs 6,000 crore to promote precision farming.

## **Background:**

Apart from offering financial support, the Centre is also considering collaborating with the Netherlands and Israel, where tech-based modern farming solutions are being used, through Centres of Excellences (CoEs)

## **Key takeaways:**

1. Precision Farming (also called Precision Agriculture) refers to the use of technology to manage farming inputs (like water, seeds, fertilizers, pesticides) more accurately and efficiently.
2. It involves technologies like Global Positioning System (GPS), Geographic Information System (GIS), remote sensing, drones, soil sensors, and data analytics to monitor crops, manage variability in the field, and optimize resource use.

## **Benefits of Precision Farming:**

1. Increased Productivity: By applying inputs more accurately, farmers can improve crop yields and quality.
2. Cost Reduction: It reduces the amount of fertilizers, water, and pesticides used, lowering costs for farmers.
3. Environmental Sustainability: Reduces overuse of chemicals, promotes soil health, and limits environmental degradation.
4. Efficient Resource Use: Optimizes the use of water, seeds, and other inputs, leading to better resource management.

## **Impact on Sustainable Agriculture:**

1. Precision farming supports the goals of sustainable agriculture by minimizing resource wastage, reducing chemical inputs, improving soil health, and mitigating environmental damage.
2. It helps address key challenges like climate change, water scarcity, and soil degradation by enabling better resource management and adaptive farming techniques.