# FAQs

## Climate Smart' Agriculture

**Q. Why is this in news?**

**A.** In the backdrop of the 2070 carbon neutrality target set by India at the CoP26 in Glasgow, the Union Budget for 2022-23 has listed "climate action" and "energy transition" as one of the four priorities for the Amrit Kaal.

**Q. What are the Climate related announcement in Budget 2022-23?**

**A.**

- An additional allocation of Rs 19,500 crore for solar PV modules has been made.
- The finance minister also talked of co-firing of **5-7 per cent of biomass pellets in thermal power plants,** "sovereign green bonds" and a "**battery-swapping policy**".
- These are positive steps towards making the energy and transport sectors less polluting.

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**Q. How agriculture impact environment?**

**A.**

- Agriculture contributes **73 per cent of the country's methane emissions.**
- **Third largest emitter:** India has kept away from the recent **EU-US pledge to slash methane emissions by 30 per cent by 2030,** despite the country being the **world's third largest emitter of methane.**
- As per the national GHG inventory, the agriculture sector emits **408 MMT of carbon-dioxide equivalent** and rice cultivation is the third highest source (17.5 per cent) of GHG emissions in Indian agriculture after enteric fermentation (54.6 per cent) and fertiliser use (19 per cent).
- Paddy fields are **anthropogenic sources of atmospheric nitrous oxide and methane,** which have been reckoned as 273 and 80-83 times more powerful than carbon dioxide in driving temperature increase in 20 years' (Sixth Assessment Report IPCC 2021).
- Moreover, paddy fields require about **4,000 cubic metres of water per tonne of rice** for irrigation.
- There is scientific evidence that **intermittent flooding** reduces water and methane emissions but increases nitrous oxide emissions.
- Thus, lowering of methane emissions through controlled irrigation **does not necessarily mean net low emissions.**

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- **Role of subsidies and procurement policies:** The environmental damage caused by agriculture is largely a **result of the various kinds of subsidies** — on urea, canal irrigation and power for irrigation — as well as the minimum support prices (MSP) and procurement policies concentrated on a few states and largely on two **crops, rice, and wheat.**

**Q. What is the Way forward?**

**A.**

- **Carbon tax:** According to the IMF, the world needs a carbon tax of $ 75 per tonne by 2030 to reduce emissions to a level consistent with a 2 degree Celsius warming target.
- India does not have **an explicit carbon-price** yet, but many countries have begun to implement carbon pricing.
- **Revisiting policies:** The Economic Survey 2021-22 points out that the country is over-exploiting its ground water resource (see map), particularly in the northwest and some parts of south India.
- This calls for **revisiting policies** to subsidise power and fertilisers, MSP and procurement and reorient them towards minimising GHG emissions.
- Farmer groups and the private sector can be mobilised to develop **carbon markets in agriculture,** both at the national and international levels, which can reward farmers in cash for **switching from carbon-intensive crops** to lower GHG emissions

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