# Towards climate-resilient agriculture

## What is the issue?

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Efforts to make agriculture climate-resilient must be scaled up and consolidated in order to avoid the impacts of a warming world.

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## What does the IPCC report say?

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- The Special Report on Global Warming of 1.5ºC was recently approved by the Intergovernmental Panel on Climate Change (IPCC).
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- The report focusses on keeping warming to under 1.5°C as compared to pre-industrial times.
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- The world has already warmed 1°C since pre-industrial times.
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- Hence, limiting warming to 0.5°C from now means the world can keep the ecosystems much as it is now.
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- Adding another 0.5°C on top of that essentially means a different and more challenging Earth for people and species.
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## Why is India vulnerable?

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- India’s agricultural ecosystem is distinguished by high monsoon dependence and with 85% small and marginal landholdings, it is highly sensitive to weather abnormalities.
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- There has been less than normal rainfall during the last four years, with 2014 and 2015 declared as drought years.

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- Even the recent monsoon season (June-September) ended with a rainfall deficit of 9%, which was just short of drought conditions.
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- There are also reports of an escalation in heat waves, which in turn affecting crops, aquatic systems and livestock.
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- The Economic Survey 2017-18 has estimated farm income losses between 15% and 18% on average, which could rise to 20%-25% for unirrigated areas without any policy interventions.
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- These projections underline the need for strategic change in dealing with climate change in agriculture.
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## What are the steps needed?

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- **Interventions** - Apart from traditional wisdom, farm extension services and climate resilient technologies should guide farmers' responses to climate change.
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- The climate resilient techniques could include solar pumps, drip irrigation and sprinklers, which involves minimum consumption of electricity and water.
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- Climate exposure can also be reduced through proper agronomic management practices such as inter cropping, multiple cropping and crop-rotation at the field level.
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- **Awareness** - The NSS 70th round indicates that a very small segment of agricultural households utilised crop insurance due to a lack of sufficient awareness and knowledge.
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- Hence there is an urgent need to educate farmers by reorienting Krishi Vigyan Kendras with specific and more funds about climate change and risk-coping measures.
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- **Framework** - Climate adaptations are to be mainstreamed in the current

developmental framework which is still at a nascent stage. (Economic Survey 2017-18).
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- Mainstreaming adaptation into the policy apparatus will enable identification of several barriers that prevent up-scaling efforts and adaptation by farmers.
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- Other initiatives towards building greater resilience in agriculture should include -
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1. Expansion of extension facilities
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2. Improving irrigation efficiency
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3. Promotion of satellite-enabled agriculture risk management
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4. Creating micro-level agro-advisories
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5. Providing customised real time data
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6. Capacity building of stakeholders
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## What is the importance of SAPCC in this regard?

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- The State Action Plans on Climate Change is an important platform for adaptation planning.
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- Under it, states are encouraged by the centre to come up with innovative and scalable projects to develop resilience against climate change and mainstream it in the planning processes.
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- Some of the components under these schemes are getting converged with major rural developmental programmes of the centre, which will further enhance their effectiveness at the grass-root level.
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- However, it needs to evolve further in terms of climate-oriented regional analysis to capture micro-level sensitivity and constraints.
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- Thus, greater expertise and consultations are required here for systematic prioritisation of actions to build a climate resilient agriculture.
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**Source: The Hindu**

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