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कृपया इस स्थान में प्रश्न संख्या के अतिरिक्त कुछ न लिखें।

UPSC

Answer Questions in NOT MORE THAN the Word Limit specified for each in the Parenthesis.
Content of the Question is more important than length.
(Specimen Answer Booklet - For Practice Purpose Only)

उम्मीदवारों को इस हाशिए में नहीं लिखना चाहिए
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Q: How the Country can be atmanirbhar in food even in the face of adverse climate conditions? Explain.

Feeding people while saving the planet requires specific art. There are almost 8 billion people on this planet, access to food at affordable prices however remains a challenge for a substantial segment of humanity which leads to malnutrition.

Concerns for Today's World:

- ① Access to food remains challenge despite the availability of ample food
- ② Lack of sync between policies and technologies
- ③ Develop technologies that supply the food and nutritional needs of the world while also addressing climate change imperatives.

Role of Science and innovations in ensuring food security:

- ① The technological breakthrough in high-yielding varieties (HYV) of wheat by Norman Borlaug and his team in rice at IRRI [International Rice Research Institute] ensured that humanity can have plenty of the basic staples.

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② Countries that are guided by scientific knowledge and the spirit of innovation, instead of ideologies and dogmas, have produced ample food, even in deserts
Eg: Israel.

Climate Adaption as well as mitigation from agriculture:

① The climate shocks are increasing across the world with higher frequency and intensity of heatwaves, droughts and untimely floods, putting millions at risk of food security.

② While agriculture gets severely impacted by climate change, it also leads to almost 28% of global greenhouse gas (GHG) emissions thus contributing to global warming.

Way forward:

① The net zero carbon target which seems to be too ambitious can serve humanity well if sincerely implemented and this planet can still feed more than 10 Billion people.

② Time to double its expenditure on

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andi - research and development and education.

③ Currently, it flows around 0.6% of agri - GDP for Centre and state combined, needs to be increased.

④ Research should include the development of new crop varieties that are resistant to the effects of climate change and disease and contribute to higher yields at the same time.

⑤ Farmers and scientists need to communicate via ^{two} ~~long~~ way feedback mechanisms, so that science can be directed to needs of the producer and the market.

⑥ Improving the communication and links along the agriculture supply chain can help foster sustainable food production.

There is a pressing need for governments and policy-makers to drive a transition toward sustainable agriculture and prioritize the reduction of food loss and waste in their climate change action plans