Q2. Starting from Indus Valley civilization, agriculture has been the main occupation of Indian society. Even today 70% of rural population is dependent on agriculture and it contributes 14% in Indian GDP. Thus the current assessment of impact of climate change on Indian agriculture is matter of concern for its citizens as well as the government.

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Impact of climate change on Indian Agriculture:—

1. **Reduction in productivity:** It is estimated that 10% drop in production for Ravi crops per degree increase in temperature.

2. **Shrinking cultivable area:** Due to desertification and unavailability of irrigation.

3. **Loss due to Extreme weather condition:** As per India's State of Environment report the frequency of extreme weathers (drought & flood) has increased by twice.

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4. Milk production :- Heat wave badly impact the milk production in the animals.

5. Pissiculture :- Recently due to flood in kerala new invasive species were spotted which affected the state's fishes ~~badl~~ badly.

6. Horticulture : More sensitive to temperature and rain. Also the pest attack due to extreme weather condition.

India's preparedeness

1. National ~~Missi~~ Mission on on sustainable Agriculture to study and minimize the impact of climate change on Indian Agriculture.

2. Pradhan Mantri Fasal Bima Yojna :- To protect the interests of farmers due to drought & floods.

3. Pradhan Mantri Krisi Sinchai Yojna :- to reduce the dependency on rain.

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4. ~~Pradhan Mantri~~ Soil Health Card scheme: To Increase the productivity

NICRA and climate change

1. Currently focusing on Research to produce ~~more~~ less water consuming seeds.

2. Block level crop recommendation system:- to suggest the farmers which crop will maximize their income.

3. More organised study and future impact of climate change on Indian Agriculture

4. Study of temporal and horizontal variation considering the 50% dependency and 14% contribution in GDP at one hand and unpreparedeness: "As more than half of ther one in our country is rainfed" ~~the~~ on the other hand the full fledge implementation of ~~NMSA~~ NMSA, more resources to NICRA, and social awareness (example: current Jalhi Jivan Initiative) will be instrumental to combat the menace.

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