

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO.1959
TO BE ANSWERED ON 13.03.2023

Effects of Climate Change on Crops

1959. SHRI ADHIKARI DEEPAK (DEV):
SHRI SAUMITRA KHAN:
SHRI RAVI KISHAN:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the Government conducted any study to assess the adverse effects of climate change on food crops after 2019;
- (b) whether the Government is aware of reports suggesting that farmers are experiencing huge losses in their produce and income due to crop failures caused by climate change in West Bengal and if so, the details thereof and the action taken thereon and if not, the reasons therefor;
- (c) whether the Government has taken any steps towards mitigating drought-related crop failure in West Bengal;
- (d) the steps taken by the Government to reduce the dependence on monsoon and to compensate the losses of crop damage due to natural calamities during the last four years and the current year;
- (e) the details of funds allocated to Uttar Pradesh and Bihar under Disaster Relief Fund during the said period, year-wise; and
- (f) whether the Government prepared any short term and long-term action plans to protect crops against the vagaries of nature?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) The climate change is a global challenge and the Government of India is seized of the matter. The Government through its various Ministries and Departments continues to assess the impacts of climate change taking into account the new data and increased scientific knowledge on the subject. Such data and analysis are routinely carried out in the regular work of Ministries/Departments and incorporated in further schemes, plans and initiatives of the Government as notified from time to time. Experts and scientists in academia and think tanks

also consulted from time to time. The Indian Council of Agricultural Research (ICAR) undertakes risk and vulnerability assessment of Indian agriculture to climate change under its flagship network project 'National Innovations in Climate Resilient Agriculture (NICRA)'.

(b) to (e): The State Government is primarily responsible for providing necessary relief measures in the wake of natural calamities. The Union Government supplements the efforts of the States by providing technical guidance and promotional financial assistance for management of floods in critical areas. For undertaking relief measures, funds are available with the State Government in the form of State Disaster Response Fund (SDRF). Additional financial assistance, over and above SDRF, is considered from National Disaster Response Fund (NDRF) for natural calamities of severe nature and is approved on the basis of Memorandum received from the State Government, in accordance with established procedures.

The Department of Agriculture and Farmers Welfare is concerned with providing relief under NDRF to farmers who have lost their crops due to drought, hailstorm, pest attack and cold wave/frost. The allocation and release of funds from State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) is mentioned below-

Allocation and release of funds from SDRF and NDRF during 2022-23 (As on 24.02.2023) (Rs. in crore)

S.No	Name of State	Allocation of SDRF			Releases from SDRF		Releases from NDRF
		Central Share	State Share	Total	1 st Instalment	2 nd Instalment	
1	Uttar Pradesh	1624.00	541.60	2165.60	812.00	--	--
2	Bihar	1189.60	396.80	1586.40	594.80	594.80	--

Allocation and release of funds from SDRF and NDRF during 2021-22 (As on 31.03.2022) (Rs. in crore)

S.No	Name of State	Allocation of SDRF			Releases from SDRF		Releases from NDRF
		Central Share	State Share	Total	1 st Instalment	2 nd Instalment	
1	Uttar Pradesh	1546.40	516.00	2062.40	773.20	773.20	--
2	Bihar	1132.80	377.60	1510.40	566.40	566.40	1038.96

Allocation and release of funds from State Disaster Risk Management Fund (SDRMF)/SDRF and NDRF during 2020-21 (As on 31.03.2021) (Rs. in crore)

S.No	Name of State	Allocation of SDRF			Releases from SDRF		Releases from NDRF
		Central Share	State Share	Total	1 st Instalment	2 nd Instalment	
1	Uttar Pradesh	1933.00	645.00	2578.00	966.50	966.50	--
2	Bihar	1416.00	472.00	1888.00	708.00	708.00	1255.27

(f) The Government of India is implementing several programmes and schemes through relevant Ministries and States including the National Action Plan on Climate Change(NAPCC) which comprises missions in specific areas of solar energy, energy efficiency, water, sustainable agriculture, Himalayan ecosystem, sustainable habitat, health,

green India, and strategic knowledge for climate change. Thirty-four States /Union Territories (UTs) have prepared and some have updated their State Action Plans on Climate Change (SAPCCs) in line with NAPCC taking into account the State-specific issues relating to climate change. These SAPCCs outline sector-specific and cross-sectoral priority actions, including adaptation.

India Meteorological Department (IMD) is dedicated for monitoring, detection and forecasting of severe weather and climate including early warning for severe weather events such as cyclones, heavy rainfall, heat wave, etc. As a non-structural measure of flood management, the Central Water Commission issues flood forecasts. The IMD in collaboration with ICAR and other institutions is rendering District/Block level Agrometeorological Advisory Services (AAS) for the benefits of farmers in the country under the scheme “Gramin Krishi Mausam Sewa (GKMS)”. The main emphasis of the existing AAS system is to collect and organize climate/weather, soil and crop information, and to amalgamate them with weather forecast to assist farmers to take decisions on day-to-day farm operations, which can further optimize the application of input resources at farm level during deficient rainfall situation and extreme weather events to reduce monetary loss and to maximize crop yield. Department of Agriculture and Farmers Welfare is implementing Per Drop More Crop scheme. It mainly focuses on water use efficiency at farm level through Micro Irrigation (Drip and Sprinkler Irrigation System).

Rainfed Area Development (RAD) Programme under National Mission for Sustainable Agriculture (NMSA) focuses on Integrated Farming System (IFS) for enhancing productivity and minimizing risks associated with climatic variability. Under this system, crops/cropping system is integrated with activities like horticulture, livestock, fishery, agro-forestry, apiculture etc. to enable farmers not only in maximizing farm returns for sustaining livelihood, but also to mitigate the impacts of drought, flood or other extreme weather events. A flagship scheme of the Government of India, the Pradhan Mantri Fasal Bima Yojana aims to provide financial support to farmers suffering crop loss/damage arising out of natural calamities.

Indian Council of Agricultural Research - Central Research Institute for Dryland Agriculture (ICAR – CRIDA) in association with other ICAR Institutes, State Agriculture Universities (SAUs) and Krishi Vigyan Kendra’s (KVKs) have prepared district agricultural contingency plans for about 650 districts. These are for delayed Monsoons and other extreme weather events. These contingency plans are hosted on the Websites of ICAR-CRIDA and Ministry of Agriculture & Farmers Welfare.
