

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
STARRED QUESTION NO. 420
TO BE ANSWERED ON 02.04.2026

Adaptation to climate change

*420 SHRI MUKUL BALKRISHNA WASNIK:

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

- (a) whether the NITI Aayog in September, 2022 citing a World Bank report, noted that rising temperatures and shifting monsoon rainfall may cost India 2.8 per cent of its GDP;
- (b) whether it is a fact that, as a result of climate change, living standards of almost half of the country's population is likely to be adversely affected by 2050; and
- (c) if so, the response of the Government thereon and adaptation measures proposed in the vulnerable sectors like agriculture, fisheries, water resources, health and ecosystems?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (c) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (C) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO. 420 FOR REPLY ON 02.04.2026 REGARDING ADAPTATION TO CLIMATE CHANGE ASKED BY SHRI MUKUL BALKRISHNA WASNIK

(a) to (c) NITI Aayog, in its report published in September 2022 titled “Climate Change and Sustainability: A Thematic Assessment of the Centrally Sponsored Schemes”, has, inter alia, referred to the World Bank study titled “South Asia’s Hotspots: The Impact of Temperature and Precipitation Changes on Living Standards” (2018). The said World Bank study assesses potential impacts under two scenarios, namely a climate-sensitive scenario (RCP 4.5) and a carbon-intensive scenario (RCP 8.5). As per the study, under the carbon-intensive scenario, changes in average weather conditions are projected to result in a decline in living standards by 2050 to the extent of 6.7 per cent for Bangladesh, 2.8 per cent for India, 2.9 per cent for Pakistan, and 7.0 per cent for Sri Lanka. The carbon-intensive (RCP 8.5) scenario represents an extreme emissions scenario and may tend to overstate potential risks. In contrast, the climate-sensitive scenario (RCP 4.5), which is more consistent with prevailing global climate policies and national commitments, indicates relatively lower impacts, as also noted in the World Bank study.

The Government has taken several initiatives to protect the country from the adverse effects of climate change and to build adaptive capacities of vulnerable sectors. The multi-faceted approach is aimed at addressing the potential impacts of climate change focusing on adaptation and resilience building.

The overarching framework for India’s climate actions is the National Action Plan on Climate Change (NAPCC). The NAPCC comprises nine missions in specific areas of solar energy, enhanced energy efficiency, sustainable habitat, water, sustaining Himalayan ecosystems, Green India, sustainable agriculture, human health and strategic knowledge for climate change. The missions under NAPCC represents multi-pronged, long-term, and integrated strategies for achieving key goals in the context of climate change.

Further, thirty-four States/Union Territories (UTs) have prepared their State Action Plans on Climate Change (SAPCC) in line with NAPCC taking into account the State specific issues relating to climate change.

Six of nine missions under NAPCC focus on adaptation for enhancing climate resilience of vulnerable sectors and communities including agriculture, water, health and ecosystem. The Government of India implements National Mission for Sustainable Agriculture (NMSA), to promote sustainable agriculture practices in the country. Several schemes under NMSA encourage farmers to adopt sustainable agriculture practices. Per Drop More Crop (PDMC) scheme increases water use efficiency at the farm level through micro irrigation technologies i.e. drip and sprinkler irrigation. For promoting organic farming and natural farming, *Paramparagat Krishi Vikas Yojana* (PKVY), and National Mission on Natural Farming (NMNF) are implemented respectively.

The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying since 2020-21 has been implementing a flagship scheme “*Pradhan Mantri Matsya Sampada Yojana*” (PMMSY) to bring about Blue Revolution through sustainable and responsible development of fisheries sector. The PMMSY programmes contribute to climate change adaptation and

mitigation through promotion of sustainable fishing practices, eco-friendly aquaculture methods, resilient infrastructure, and conservation of marine ecosystems. It emphasizes reducing environmental impacts, enhancing resource efficiency, and fostering climate-resilient livelihoods for fishers and fish farmers.

With increasing concerns over water scarcity, the Government has initiated various programs like the *Jal Jeevan* Mission and National Water Mission to improve water management and ensure sustainable water use, especially in drought-prone regions. Government of India implements the National Programme for Climate Change and Human Health with the objective to create awareness, capacity building, health sector preparedness and response and partnerships related activities on the climate sensitive health issues in the country.

The Government of India has been undertaking a number of steps aimed at protecting the ecosystem and implementing conservation, which have a direct/indirect impact on combating climate change. National Mission for a Green India (GIM) aims at protecting, restoring and enhancing India's forest cover and responding to Climate Change by undertaking plantation activities in the forest and non-forest areas. Under the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) and National Mission on Strategic Knowledge for Climate Change (NMSKCC), financial support is provided to various Institutions and Universities to carry out Research & Development studies related to climate change science and adaptation strategies.
