

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO: 4190
TO BE ANSWERED ON 27.03.2023

Impact of Heat Waves

4190: MS. S. JOTHIMANI:

Will the MINISTER OF ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the steps the Government has taken to raise public awareness on the impact of rising temperatures (particularly heat waves) on health, the environment and the economy, along with details of expenditure incurred by the Ministry and its Offices on such campaigns;
- (b) details of investments made by the Government on the research and development of efficient irrigation systems, better rainwater harvesting techniques and technologies for recycling of water, along with incentives being provided by the Government to farmers and households to adopt such technologies; and
- (c) the support the Government provide to startups, particularly rural startups, aimed at combating the ill-effects of heat waves on agriculture and health?

ANSWER

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

(a) India's climate actions cut across various sectors and are being implemented through various programs and schemes of different Union Ministries, Departments and State/ Union Territory Governments. The Government of India through concerned Ministries and Departments organises workshops, exhibitions, campaigns, competitions, etc. to raise public awareness on issues related to environment sustainability and climate change. Mission LiFE (Lifestyle for Environment) has been launched to promote sustainable lifestyles and practices that conserve the environment and have climate co-benefits. This Ministry is also implementing the Environment Education Programme (EEP) with an objective to sensitize children/youth, on issues related to environment and to motivate them to adopt sustainable lifestyles. An amount of Rupees 50.07 crores was spent by this Ministry under the Environmental Education, Awareness and Training scheme in FY 2021-22.

The Ministry of Health and Family Welfare has taken steps to increase public awareness on the subject of health impacts of climate change including heat waves, under the 'National Programme on Climate Change and Human Health'. Heat wave is one of the severe weather phenomena for which India Meteorological Department (IMD) issues colour coded impact based heat wave warning for public benefit through mass media. IMD in collaboration with local health

departments have started heat action plans in many parts of the country to forewarn about heat waves and also advising action to be taken. The National Disaster Management Authority (NDMA) and IMD are working with 23 States prone to high temperature leading to heat-wave conditions for supporting heat action plans.

(b) Water Technology Initiative (WTI) has shaped and mounted several research-led solutions through National, International, and coordinated projects for water management and conservation which includes exploring the Agri-Water nexus. Varied projects in this area include groundwater recharge systems and integrated use of drip irrigation systems for enhancing crop productivity, sensors for monitoring of water balance components, solar green house based hydroponic solutions, river bank filtration technologies, rainwater harvesting, etc. under the Indo-Dutch bilateral cooperation. Further, WTI has also supported two Water Innovation Centres (WIC) in Jodhpur and Ludhiana for the Agri-Water interdisciplinary research and development for convergent solutions. Technological approaches have been adopted by Department of Science and Technology for conservation of water through water efficient agricultural practices; augmentation of quality of water from available and accessible sources; and renovation for recycle.

The Ministry of Agriculture and Farmers Welfare is implementing Per Drop More Crop (PDMC) scheme, which focuses on enhancing water use efficiency at farm level through micro irrigation viz. drip and sprinkler irrigation systems. The Government provides financial assistance/subsidy to farmers for encouraging them to install drip and sprinkler irrigation systems under the PDMC scheme. Farmers are encouraged to take advantage of the PDMC scheme by wide publicity through press & print media, publication of leaflets/booklets, organization of workshops, exhibitions, farmer fairs, information on State/Government of India web portals etc. Besides, with the objective of facilitating the States in mobilising resources for expanding coverage of micro irrigation, Micro Irrigation Fund (MIF) has been created with National Bank for Agriculture and Rural Development (NABARD). The objective of the fund is to facilitate States in mobilizing resources for expanding coverage of micro irrigation by taking up special and innovative projects and also for incentivising micro irrigation beyond the provisions available under PDMC scheme to encourage farmers to install micro irrigation systems. In addition, Indian Council of Agricultural Research (ICAR) imparts training and organizes field demonstrations through Krishi Vigyan Kendras (KVKs) to educate farmers for promotion of efficient irrigation techniques/ micro irrigation for various crops.

(c) The Government with an intent to build a strong ecosystem for nurturing innovation and startups in the country has launched 'Startup India initiative'. The action plan for 'Startup India' has laid the foundation of Government support, schemes and incentives envisaged to create a vibrant startup ecosystem in the country. The action plan comprises of 19 action items spanning across areas such as 'Simplification and handholding', 'Funding support and incentives' and 'Industry- academia partnership and incubation'. The Startup India Seed Fund Scheme (SISFS) under Startup India initiative provides financial assistance to startups across the country for proof of concept, prototype development, product trials, market entry and commercialization.
