

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO.1327
TO BE ANSWERED ON 28.07.2022

Increasing events of flooding and cloud burst

1327. SHRI VIJAY PAL SINGH TOMAR:

SHRI HARNATH SINGH YADAV:

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

- (a) whether the outbreak of floods/clouds bursting is increasing in several parts of the country due to climate change;
- (b) if so, whether Government proposes to take any steps to reduce climate change; and
- (c) if so, the details thereof?

ANSWER

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

(a) According to the India Meteorological Department (IMD), cloudburst events occur within a short duration and are highly localized. The occurrence of the cloudburst is not predictable worldwide. Moreover, the information about cloudburst incidents is very limited. IMD considers it to be a cloudburst when rainfall occurs at the rate of 10 cm/hour or more over a geographical area of approximately 20-30 square km. However, there are other studies where different criteria are considered for defining cloudburst. Relatedly, evidence suggests that there is also an increase in heavy rainfall events in recent years.

There is no established study for India providing a quantified attribution of climate change leading to increased outbreak of floods/cloudbursts. Many studies monitor disasters such as floods, cloudbursts, droughts and heatwaves. However, the science of attribution of these changes particularly to climate change is far more complex and currently an evolving subject. Most studies so far have relied on mathematical modelling of climate change impacts but these are yet to be empirically verified.

The occurrence of floods can be attributed to various factors, including wide variations in rainfall both in time and space with frequent departures from the normal pattern, inadequate carrying capacities of rivers, river bank erosion and silting of river beds, landslides, poor natural drainage in flood prone areas, snowmelt and glacial lake outbursts.

(b) and (c) Climate change is a global collective action problem. India with more than 17% of the global population has contributed only about 4% of the global cumulative greenhouse gas emissions between 1850 and 2019. Reports from various sources, including Intergovernmental Panel on Climate Change, highlight that the challenges faced due to global

warming are mainly due to cumulative historical and current greenhouse gas emissions of the developed countries. India firmly believes in global cooperation to deal with climate change challenges through the multilateral processes of the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, on the basis of equity and the principle of Common but Differentiated Responsibilities and Respective Capabilities. As per the UNFCCC, developed countries should take the lead in climate actions.

Even though India is not part of the problem, it is committed to its solution and has done more than its fair share to combat climate change. The Government stands committed to combating climate change through its several programs and schemes. This includes implementation of the National Action Plan on Climate Change (NAPCC), which comprises missions in specific areas of solar energy, energy efficiency, water, agriculture, Himalayan ecosystem, sustainable habitat, green India, and strategic knowledge on climate change. The NAPCC provides an overarching framework for all climate actions. Thirty-three States/Union Territories have prepared 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. The Government is also implementing the scheme, 'National Adaptation Fund for Climate Change' to support adaptation measures of States/UTs in areas that are particularly vulnerable to the adverse impacts of climate change.
