

PREFACE

India has always been susceptible to the damaging impacts of droughts on its economy because it is a country reliant on agriculture. Flash droughts, one of the many types of droughts, have recently become a major problem for India. Flash droughts are characterised by their quick and severe onset, which can happen in a matter of weeks or months and lead to a quick loss of soil moisture. These occurrences may result in widespread crop failure, a lack of water, and other problems.

Flash droughts are a quick-moving and unpredictable phenomenon, as opposed to regular droughts, which take place gradually over a long period of time. Farmers find it challenging to foresee and prepare for the significant impact on their crops and way of life due to this unpredictability. The already difficult conditions for agriculture are made even more difficult by a flash drought's mix of high temperatures, low humidity, and decreased rainfall. These elements have a substantial impact on crop growth and productivity, which results in poorer yields, less food being produced, and a greater susceptibility to food scarcity.

Due to decreased agricultural output, flash droughts in India have had a huge negative financial impact. Crop failures directly affect farmers' livelihoods and the quality of life for those living in rural areas, with consequences that extend to the entire supply chain and the country's economy. Additionally, the increasing cost of food as a result of the increased demand for agricultural products puts additional strain on household budgets and raises the general cost of living.

Proactive steps are required to alleviate the problems caused by flash droughts. It is essential to encourage water conservation practises to guarantee effective use of the water resources that are available. As part of this, farmers are urged to implement cutting-edge irrigation methods like drip

irrigation and micro-sprinklers, which reduce water waste and boost water use effectiveness. A buffer during times of water shortage and a reduction in the effects of flash droughts on agriculture can be achieved by investing in the creation and expansion of irrigation systems, both surface-based and groundwater-based.

Building climate-resilient agricultural systems is also necessary to endure the frequency and severity of flash droughts, which are on the rise. This entails incorporating climate-smart techniques including agricultural diversification, agroforestry, better soil management, and the adoption of kinds of crops that can withstand drought. Implementing early warning systems that can anticipate the start of flash droughts can also help with resource allocation and prompt decision-making.

The government, together with academic institutions and agricultural extension services, is essential in spreading knowledge, offering technical assistance, and promoting farmers' adoption of adaptive practises. Farmers can be informed about the dangers posed by flash droughts and given the information and resources they need to lessen their effects by participating in awareness campaigns and training programmes.

Finally, flash droughts are becoming a major problem for India's agriculture industry and nation's overall food security. Farmers have difficulties as a result of the suddenness and intensity of these events, which can result in crop failures, water shortages, and financial losses. However, the nation can increase its resistance to flash droughts by water conservation practises, investments in irrigation systems, climate-resilient agriculture, and proactive initiatives. India can lessen the negative effects of flash droughts on agriculture, guarantee food security, and promote sustained economic growth by giving these initiatives top priority.