

Study finds Koraput's rice varieties climate resilient

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Bhubaneswar: A research by a Koraput-based university has found stress-resistant traits in many traditional varieties of rice — grown mostly in the tribal-dominated areas of the district — that can withstand drought, flood and salinity in soil and thus, resist the vagaries of the modern phenomenon of climate change.

The findings of the research — conducted by Central University of Odisha's Debraj Panda, assistant professor of biodiversity and conservation of natural resources, and PhD scholar Prafulla K Behera — were published on December 1 in *Current Plant Biology*, a peer-reviewed journal from Elsevier.

The research claimed that the findings will pave the way for development of stress-resistant varieties of rice that can fight climate change.

Announced as a global agricultural heritage site by the Food and Agriculture Organization of the United Nations in 2012, Koraput is predominantly inhabited by Scheduled Tribes like Paro-

MAJOR TAKEAWAYS

➤ A research study found that many traditional rice varieties in **Koraput exhibit** higher levels of resilience to drought, salinity and floods

➤ Varieties like **Basubhoga, Dudhamani, Kalajeera, Laktimachi, Kuyerkuling** and **Tulasi** can resist drought, flood

➤ **Sapuri** and **Muktabali** can withstand salinity

➤ **Kalajeera, Machhakanta** and **Haldichudi** exhibit higher levels of resilience to a variety of stress factors like drought, salinity and flood

➤ These varieties, which are the main crops of the tribals in Koraput, have the potential to significantly contribute to global food and nutrition security in the face of changing climate

➤ These varieties can pave the way for researchers to develop stress-resistant varieties of rice in the future

ja, Bhumia, Gadaba, Bhatra, Durua and Kandha. Since time immemorial, the tribal farmers have been cultivating a large number of traditional varieties of rice and the Asian rice originated in the Koraput valley, according to the researchers.

Panda, who has been conducting research on collection, evaluation and conservation of indigenous varieties of rice in the valley for the past 10 years, has collected more than 130 varieties from the tribal pockets of the dis-

trict and studied their climate change-resilient and nutritional traits and DNA profiling to know the characters of the genes of the rice plants.

"Based on the research, six native varieties of rice were identified as tolerant to drought and flood, while two other varieties could resist salinity. Besides, three varieties exhibited higher levels of resilience to a variety of stress factors like drought, salinity and flood," Panda said.

