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## Protect Culture to Maintain Traditional Crops: A Case Study among Tribal Farmer Communities in India

MARIJN VOORHAAR<sup>1</sup>, VINCENT GARIN<sup>1</sup>, KRITHIKA ANBAZHAGAN<sup>1</sup>, PRASHANTH RAMINI<sup>2</sup>,  
VITTAL RAO KUMRA<sup>2</sup>, JANA KHOLOVÁ<sup>1</sup>, ERWIN BULTE<sup>3</sup>, ROBERT LENSINK<sup>3</sup>

<sup>1</sup>*ICRISAT, Crop Physiology, India*

<sup>2</sup>*Centre for Collective Development (CCD), India*

<sup>3</sup>*Wageningen University, Social Sciences, The Netherlands*

### Abstract

Similar to other traditional crops, sorghum cultivation is declining in several regions of the world. In this study, we investigated the main socio-cultural drivers that explain the persistence of sorghum cultivation by tribal farmers in the district of Adilabad (Telangana, India). For these indigenous communities, sorghum still plays a prominent role in their tradition and culture.

Our study was conducted in Utnoor, a small region (350 km<sup>2</sup>) with a high level of agro- and cultural biodiversity. Consisting of both hills and plain areas, it covers the main crops cultivated in India (rice, maize, wheat) with a substantial share for sorghum and chickpea. With a tribal population of almost 60%, the Utnoor region is an agri-cultural hotspot where conclusions about big tendencies characterising Indian agriculture can be drawn.

We interviewed 110 farmers (male: N=89 / female: N=21) living in 11 different villages representative of the three main agricultural systems present in the region (sorghum, chickpea, and rice/maize). We collected data about demography, agronomy, environmental pressure and access to technology. The most salient feature of our study is the adaptation of the Hofstede scale to measure cultural values in these farming communities. To the best of our knowledge, it is a first attempt to measure cultural differences in the (Indian) agricultural context with this well-established tool.

Our findings show that sorghum is mostly grown for household consumption and fodder purposes, whereas chickpea, rice and maize are cultivated for the market. The sorghum market is mostly informal, making it less profitable for farmers. Sorghum farmers tend to live further away from a water source, compared to the other farmers. A strong correlation was found between culture and crop choice. Compared to chickpea, and rice/maize farmers, sorghum communities showed less hierarchy, a more collective attitude and attachment to the group, and were less likely to change cultural behaviours. Therefore, cultural aspects should be taken into consideration to design interventions aiming to preserve traditional crops.

**Keywords:** Culture, Hofstede, socioeconomics, sorghum, traditional crops, tribal communities