

## **Exploration of Bambara groundnut (*Vigna subterranea* (L.) Verdc.), an underutilized crop, to aid global food security: varietal improvement, genetic diversity and processing**

### **ABSTRACT**

Currently, the global agricultural system is focused on a limited number of crop species, thereby presenting a threat to food security and supply, especially with predicted global climate change conditions. The importance of ‘underutilized’ crop species in meeting the world’s demand for food has been duly recognized by research communities, governments and policy makers worldwide. The development of underutilized crops, with their vast genetic resources and beneficial traits, may be a useful step towards solving food security challenges by offering a multifaceted agricultural system that includes additional important food resources. Bambara groundnut is among the beneficial underutilized crop species that may have a positive impact on global food security through organized and well-coordinated multidimensional breeding programs. The excessive degrees of allelic difference in Bambara groundnut germplasm could be exploited in breeding activities to develop new varieties. It is important to match recognized breeding objectives with documented diversity in order to significantly improve breeding. This review assesses the genetic diversity of Bambara groundnut, as well as important factors involved in realizing and harnessing the potential of this crop.

**Keyword:** Bambara groundnut; Climate change; Crop improvement; Food security; Underutilized species