

The Potential of Underutilized Species to Prevent Micronutrient Deficiencies in Northern Ghana

Master-Thesis at the Department of Agricultural and Biosystems Engineering

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Abstract

Certain nutrient deficiencies are still common in northern Ghana while other parts of the country suffer less of the same. Several control efforts improved the nutritional status and a mixture of a variety of approaches seem to have a longstanding and sustainable success. Ghana has room to improve the dietary diversification approach, especially to women. NUS make nutritious food while being able to diversify the diet of Ghanaians. However, they are underrepresented in attention and agricultural cultivation.

The database analyses were done between July and September 2020 using databases of INFOODS, BFN, AFCD, and the USDA and other scientific publications. Qualitative data was produced conducting fieldwork in northern Ghana on two occasions: The group meetings (n=27) were done in July 2018 and the individual interviews (n=19) were done in August 2020. The ATSAF - CGIAR++ Junior Scientists Program provided data through the CIP on released varieties in Ghana and newly biofortified clones.

The first part of the results is supposed to give an overview of NUS that are relevant against micronutrient deficiencies prevalent in Ghana in terms of their nutritional content. The second part looks at a native species that is underutilized and draws attention to its accessibility, availability, and utilization. The third part of the result looks at an introduced species and its uptake by farmers, NGO involvement, accessibility, and availability, as well as which newly biofortified bred clones could be beneficial for future release.

Although *Parkia biglobosa* is deeply connected to the Dagomba and although much money has flown into the promotion of OFSP and that it is an important crop nationally both species lack availability to farmers.

This study highlights the potential and importance of NUS and that the potential lies within their availability – No matter how good the nutrient makeup is, if the plant is not available to farmers, people and the economy will not benefit from it.