

## **Assessing Farm-level Limitations and Potentials for Organic Agriculture by Agro-ecological Zones and Development Domains in Northern Nigeria of West Africa**

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**ABSTRACT** Farm-level use of organic fertilizer could be influenced by development domains that comprise human population density and markets access. Analysis of 320 farm households from 16 geo-referenced villages provided the basis for assessing farm-level limitations and potentials for organic agriculture by agro-ecological zones and development domains in northern Nigeria of West Africa. The analysis was based on four identified development domains. The development domains were clusters of population and market access which are: low population density, low market access (LPLM); low population density, high market access (LPHM); high population density, low market access (HPLM); and high population density, high market access (HPHM). It was found that cereal-legume based cropping systems accounted for 74 percent of the total share of organic fertilizer used on the farm. The actual and potential use of organic fertilizer revealed that the current levels of organic fertilizer use as share of the minimum requirements for take-off for organic agriculture in Nigeria was low (37 percent) despite its potentials. Based cost effectiveness of livestock ownership, the development domains of HPLM and HPHM in the northern Guinea savanna revealed best potential for take-off of organic agriculture in Nigeria.