

# AGROBIODIVERSITY; A CASE FOR PRESERVING AND CONSERVING INDIGENOUS ECOTYPES OF NIGERIAN POULTRY

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Agrobiodiversity, is the vital organic resources on which the present and future sustenance of humankind depends. The farm animal genetic resource (AnGR) sector of this provides the variety and variability of species, breeds and populations including unique genotypes which underpins an essential component of food and agricultural production.

The African sub - continent is one of the world's mega diversity centers and judicious use and enhancement of these living resources must be ensured.

This becomes important because of the highly specialized nature of the animal production enterprise, especially with poultry which is the focus of our research. Production here is dominated by as few as ten (10) primary breeders generating meat, white and brown eggs and further dominating the enterprise with a concomitant thinning of the genetic base on which the whole enterprise stands.

The Nigerian ecotypes (ecological types), our focus an indigenous small body sized mongrel with a plethora of genotypes and phenotypes that is most suited for the environment in which it is found due to adaptation, where they are raised extensively, solely on free range with little or no attention to issues of feeding and health. Still they thrive meeting about 60% of the rural meat requirement.

The immunological index, which is a measure of preparedness to diseases challenge is high when compared with the exotics that are commercially raised. The term indigenous is a term of convenience given the fact that microsatellite analysis of populations of the different ecotypes and the German Dahlem Red show clearly that phylogenetically the Nigerian indigenous is nearer to the Dahlem Red than other African ecotypes, due to various attempts at planned and indiscriminate cross breeding, the most prominent being the Western Nigerian Government program of Cock exchange dating back to 1965.

On our project farm, all Nigerian indigenous ecotypes are being preserved in - situ, with planned crossing between and within types, and also the exotics, under intensive production systems, so that the unique genotypes are preserved and indices of productivity can be measured in a controlled environment. Results obtained so far are fascinating.