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## Legume Diversity and Ethnobotanical Surveys in the Northern Guinea Savannah of Nigeria

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### Abstract

The study aimed at conducting an ethnobotanical assessment of the local recognition of wild and cultivated legumes. The target area was around Zaria, Kaduna State. The area is classified in different resource use domains according to population pressure and market access. Thirteen villages out of four different domains were chosen for the interviews.

Concerning wild legumes, 427 semi-structured interviews with the visual aid of a voucher herbarium consisting out of 55 wild legumes that were collected in the study area were conducted. The interviews were done separately with men and women and with different ethnic groups, mainly Hausa and Fulani. Concerning cultivated legumes, 74 interviews with men with the help of cowpea and bambarra nut seed samples were conducted.

The interviews on wild legumes contained questions concerning the vernacular name, the local classification, plant habitat, species abundance in the area, indicator functions, soil preferences of species, soil fertility attributing characteristics and traditional. The recognition of the herbarium specimens was high and legumes were used by both sexes and ethnic groups in many ways, such as in human medicine, in veterinary medicine, in various technical applications, in supernatural practices, for human consumption and as animal fodder. Gender related activities concerning collection and the use of wild leguminous plants were observed.

The surveys on cowpea (*Vigna unguiculata*) and bambarra groundnut (*Vigna subterranea*) contained questions on cultivar diversity, genetic erosion of local varieties, the production system and seed storage and seed supply system. The legumes were spatially and temporally integrated in the production system. Seed storage and seed exchange was a common practice, whereby the strengthening of the seed supply system was seen as important. The information gathered showed a static genetic erosion of traditional cultivars in all resource use domains due to three different main reasons: individual abandonment, accidental loss and large scale abandonment.

As conclusion, the multipurpose uses of legumes are acknowledged in the study area. There is the potential to integrate legumes further in the existing production system. The conservation of the traditional knowledge concerning wild legumes can be seen as important due to high migration in the study area.

**Keywords:** Biodiversity of wild and cultivated legumes, ethnobotany, genetic erosion, RRA, semi-structured interviews, multipurpose uses of legumes, traditional knowledge

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