Pigeonpea (Cajanus cajan (L.) Millsp.) is one of Uganda’s many traditional pulses. It is a hardy crop with diverse uses, and is resilient to climate change. Pigeonpea may have an important role to play in Uganda’s food and nutritional security, while protecting and enhancing natural resources in a changing climate. Farmer’s adoption is linked to uses, biophysical conditions and farmer’s preferences. In Uganda, however, pigeonpea has received little attention. The sustainable cultivation of pigeonpea in Uganda will require, among other things, identification of suitable regions for cultivation and a better understanding of the factors that influence its adoption by farmers.

**Growth and use of pigeonpea**

Pigeonpea suitability was performed by matching land characteristics with crop requirements using a GIS weighted overlay technique.

**Suitability analysis steps**

1. Choose data types (Slope, Temperature, Rainfall, Soil drainage)
2. Each data type reclassified into 4 classes
3. Assigning suitability scale to reclassified images
4. Weighted overlay technique
5. Pigeonpea suitability

**Factors influencing pigeonpea adoption**

Household surveys using semi-structured questionnaires were conducted together with focus group discussions from April to May 2019.

**Surveys and discussions**

- 283 Household interviews
- 51 Focus group discussions

**Advantages and constraints to pigeonpea production**

- **Our suitability map indicated that pigeonpea can be grown on 79% of arable land in Uganda.**

**Constraints related to pigeonpea production**

- Pests, diseases, drought and lack of improved varieties were identified as the major constraints to pigeonpea production.

**Farmers’ preferred traits in pigeonpea**

- Similarly, the most preferred traits in pigeonpea by farmers included resistance to pests and diseases, early maturity and tolerance to drought.

**Pigeonpea has potential but more work is needed**

- Take advantage of the suitable areas for pigeonpea cultivation by extending the crop to these areas
- Overcome pests and disease issues with access to resistant varieties
- Save and exchange seed with resistance to diseases, early maturity and drought tolerance by farmers
- Pigeonpea should be promoted in suitable areas with strong linkage between research-extension-farmer

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