Indigenous climate resilient practices for improving quality and yield of vegetables in Far Western

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Introduction

- Dependency on agricultural inputs such as seed, fertilizer, pesticide, external seed source is increasing which were previously managed by our ancestors from within the community
- There may be some specific indigenous technologies and practices that needs exploration
- Effective indigenous knowledge could enhance production and eliminate problems created by external inputs

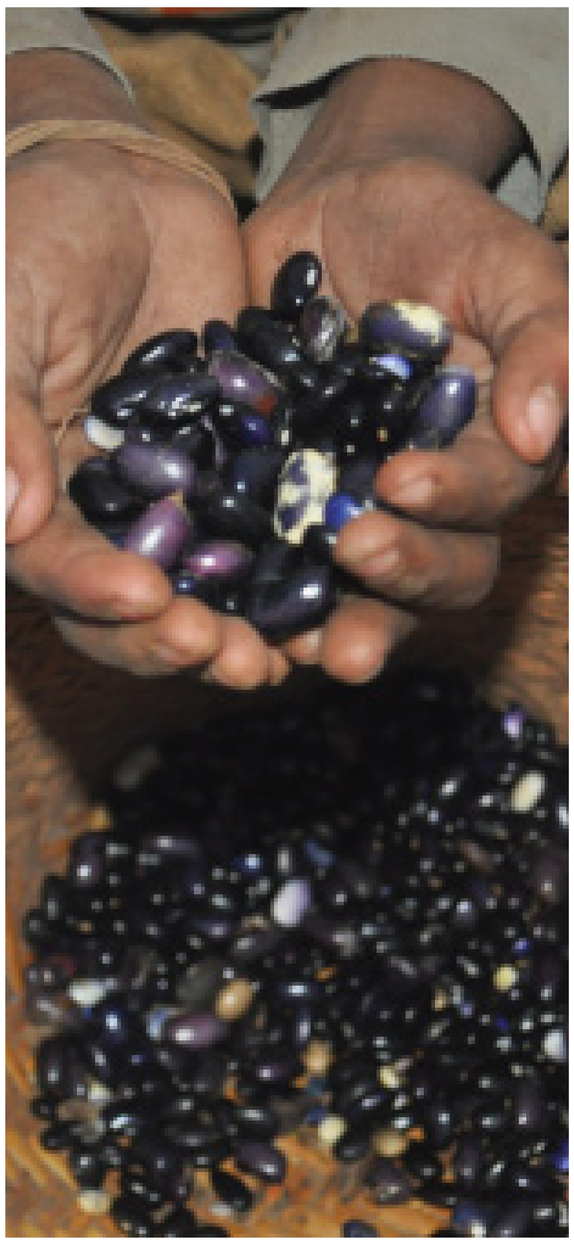
Research questions

- Are there any indigenous technologies and practices in vegetable cultivation?

Methodology

Household Survey of 282 farmers and FGDs/KIIs of few individuals/ groups at Kailali, Doti and Bajura

Qualitative analysis (content, thematic, etc.) of observed information supplemented by quantitative data



Key findings

Seed & Storage	Nursery management	Transplanting	Fertilizer and pesticide	Post harvest management
Farmers have abundant indigenous technologies and practices for seed collection and storage	Seeds are soaked in water 24 hours prior to sowing and placed on shade	Lightly irrigate saplings prior to uprooting	Farmers have abundant indigenous fertilizers and pesticides (everything that is bitter, sour, chilli hot, pungent, etc.)	Vegetables can be stored raw or after processing
Healthy and mature (sometimes induced) plant is the source of seeds	Forest soil along with fallen leaves (or Soil+FYM+Sand mixture) have best regenerative capacity and hence used	While uprooting precaution should be taken not to touch the middle portion of stem but the bottom	Use of local plant materials by decomposing them with or without cattle urine can be helpful to produce either liquid-based or slurry/solid-based jaibik fertilizers	Underground pits in the slopy land can store potato, ginger, radish, etc. in raw state
Seeds are collected and sun/shade dried before storage in cool, dry, shaded place	Neem-leaf powder and mustard-cake powder, etc. are added to have anti-pesticidal/fungal effect	Field/Pit is well tilled and fertilized with FYM 1-2 weeks prior to transplanting	Use of some specific plants (titepati, neem, etc.) to extract their content with the help of water or urine are done to prepare jaibik pesticides	Garlic, Onion, etc. can be stored by just hanging them in bundles in the roof, etc.
There are several storage mechanisms: Straw Bags, Leaves of Malu, Bamboo Baskets, Bhakari, Underground Pits, etc.	Closed nursery and heightened nursery housing are common in winter and rainy season, respectively	Light irrigation or mulching after the transplantation process is complete	Oil cakes, ashes, etc. can also be used for fungal diseases	Processing by making pickle, gundruk, sinki, chana, chips, etc. are also common

Conclusion

- There is a vast traditional knowledge related to vegetable production and management
- Due to easy availability of inputs on market this indigenous knowledge are gradually disappearing
- There is a dire need to document and validate these indigenous knowledge for their promotion in current context