



Genetic Diversity and Food Security-Sudan

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Outline or contents

- Background on the country and status of genetic diversity
- Food security status and determinants
- Food security policy framework and GD
- The regulatory framework of genetic diversity
- Challenges and conclusion

Food Security status and determinants

- FS dimensions (availability, accessibility, utilization and stability)
- The country has various climatic zones leading to various farming systems and various crops
- There is heavy dependence on natural resources for food as majority of people are rural and depends on farming, mainly rainfed
- Existing genetic diversity has helped to maintain food security for various reasons:

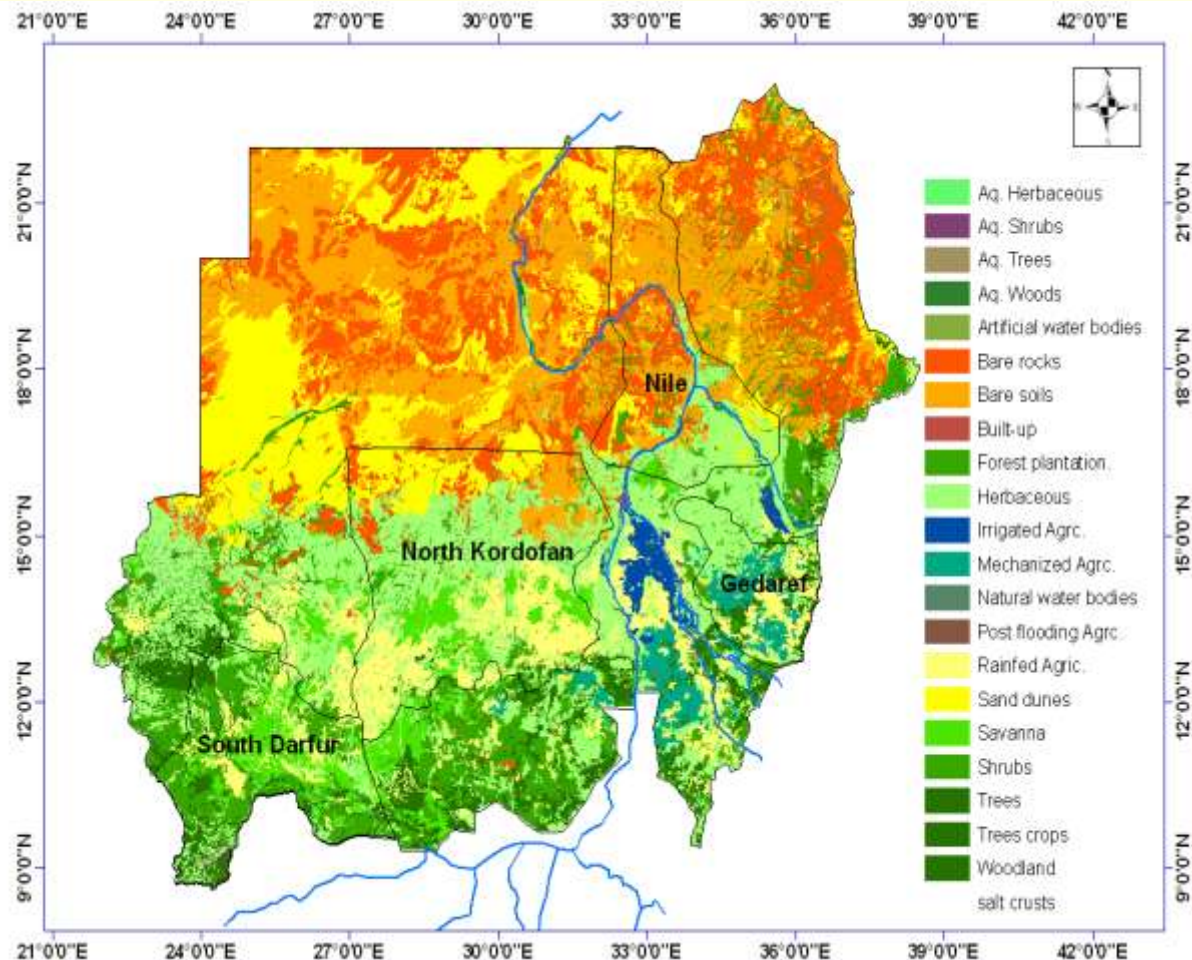
Genetic diversity and food security

Food security is maintained due to:

- Genetic diversity (Sudan fauna and flora)
- Diversity in systems of production
- Diversity in environment
- Diversity in food habits and taste

Nature of Diversity & relation to FS

Land Use Categories



Genetic Diversity in Sudan

biodiversity or genetic diversity
provides valuable ecosystems
services and functions for
agricultural production and
hence to food security

Agro-biodiversity in Sudan include



- Field crops
- Horticultural crops
- Medicinal and aromatic plants
- Farm animal
- Forests Ecosystem
- Rangeland Ecosystems



Farm Animal Genetic Resources

- The recent estimates for the livestock in the country stand at **104911759 heads of Cattle, Sheep, Goats and Camels.**
- **Different breeds**



Food security policy framework

- National plan for food security 2007 with support from FAO (3 basic programs)
- Integrated food security information for supporting decision making (2007-2012) FAO
- Formation of Food Security Technical Secretariat 2014—institutional framework for handling food security & nutrition issues (NCFSN, technical committee, working groups)
- Policies targeting determinants of FS

Food security and related policies & GD

- Policies and interventions related to supply side or availability and accessibility (enhance production, strategic reserve, trade policy, safety nets, early warning systems, health policies, water and waste management policy, sectoral policies)
- Norms, values and habits and management of demand side to food stuff
- Genetic diversity, population dynamics and relation to management of existing pressure on diversity

Regulatory and Legal framework GD

- **International legal instruments**

National legalization of the international instruments

- **The Interim National Constitution of Sudan (2005) – A11.1, 11.2, 11.3**
- **National Biodiversity Strategy and Action Plan (NBSAP) 2000, updated 2011-2020**
- **The Environment Protection Act 2001**
- **National Biosafety Law (2010)**
- **National Plant Genetic Resources legislations**

In Conclusion

Challenges & opportunities to diversity/food security enhancement

- Challenges of climate and adaptation measures and relation to preservation
- Challenges of policy interventions and pressure on existing genetic diversity
- Challenges of conservation and utilization of genetic diversity (ARC center role, setup and operationlization of related structures and mechanisms)

Opportunities exist-if policies & institutional setup are tailored to diversity maintenance and enrichment

Threats to biodiversity in Sudan



A large, dense, green tree with a thick trunk, standing in a dry, sandy landscape under a clear blue sky. The text "Thank you" is overlaid in the center.

Thank you