



TRANSFORMING GENETIC RESOURCES INTO VALUE

Synthesis and Recommendation on the National Plant Agrobiodiversity Conservation Strategy for the Sultanate of Oman

National Plant Agrobiodiversity Conservation Strategy for the Sultanate of
Oman - Stakeholder Consultation Workshop, 2-3rd November 2015

The Presentation

- Monitoring of agrobiodiversity conservation
- Promoting use of conserved agrobiodiversity
- Policy and legislative context for agrobiodiversity conservation
- International integration on agrobiodiversity conservation
- Problem encountered and research priorities

Monitoring agrobiodiversity conservation

- Focus on exemplars species
 - What are top 100 priority socioeconomic species (25 CWR, 25 MP, 25 WHS, and 25 LR)?
 - Is there monitoring program in Protected Areas (*in situ*)?
 - If not, a program need to be developed for different types of plants, i.e. a) shrubs and trees (woody plants) and, b) herbaceous plants

Promoting use of conserved agrobiodiversity

Do we know about our plant genetic resources? Their importance, use, distribution?

Do we have information and knowledge about their **Characteristics** and specific socioeconomic traits of importance (**Evaluation**)?

Promoting use of conserved agrobiodiversity

Characteristics and Evaluation

Although, there are some characteristics data published agriculture research of MAF and other organization but still they are not easily accessible.

These publications are usually in form of annual reports or thesis. Very few of them go to peer reviewed journal publications.

Most of the characteristics are in form of morphological characterization and to some extend DNA fingerprinting profiling using AFLP and SSR.

The Second State of the world on Plant Genetic Resources for food and Agriculture (FAO, 2010) mentioned that still countries facing lack of characterization and evaluation data.

Policy and legislative context for agrobiodiversity conservation

Royal Decrees (1)

Royal Decree	Number
Issuance a Law of the Natural Protected Areas and National Parks	26/1979
Set Protected Areas and Laws	38/1979
Establishment of the Environmental Protection Council for Pollution Control	68/1979
For Issuance of the Environmental Protection and Pollution Control Law	10/1982
Modify some provisions of the Environmental Protection and Pollution Control Law	63/1985
Ratification of the Convention of Biological Diversity	119/ 1994
Modify some provisions Law of the Natural Protected Areas and National Parks	47/1995
Modification of the Environmental Protection and Pollution Control Law	111/1996
Ratification of the Global Plan of action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture	10/1997

Policy and legislative context for agrobiodiversity conservation

Royal Decrees (2)

Royal Decree	Number
Issuing System Prevention and Protection of Agricultural Wealth	31/1998
Amendment to the Environmental Protection and Pollution Control Law	75/1998
Law of Agricultural Quarantine	91/2000
Promulgating the Law on the Protection of New Plant Varieties	92 /2000
Law on Conservation of the Environment and Prevention of Pollution	114/2001
Ratification of the Cartagena Protocol on Biosafety	55/ 2002
Law on Nature Reserves and Wildlife Conservation	6/2003
Issuing Pastures and Animal Resources Management Law	8 /2003
International Treaty on Plant Genetic Resources for Food and Agriculture	57 /2004

Policy and legislative context for agrobiodiversity conservation

Royal Decrees (3)

Royal Decree	Number
Establishment of the Oman Botanic Garden	6/2006
Establishment of the International Plant Genetic Resources Institute (Biodiversity International)	86 /2007
Promulgating the Protection of the Breeds' Rights in New Varieties of Plants Law	49/2009
Approving the Sultanate of Oman's Accession to the Near East Plant Protection Organization (NEPPO)	70/2014

Policy and legislative context for agrobiodiversity conservation

The country published several laws and regulations on Environment Protection and on Protected Areas.

However, implementation and monitoring of these legislative need to be effective.

- review, monitoring of implementation,
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Policy and legislative context for agrobiodiversity conservation

Policies

- Assessment of the status of biological diversity and its value.
- Identification and reduction of threats to species and ecosystems mainly from human activities.
- Establishing traditional but wise dependence of local communities on the conservation and sustainable use of biodiversity, including agricultural biodiversity to meet the population's needs for food, health care, fuel, construction materials, raw materials, commercial, industrial, recreational and a variety of other resources.

Policy and legislative context for agrobiodiversity conservation

Policies

- Improvement of the system of coordination of actions aimed to resolve biodiversity issues.
- Undertaking inventories of all fields as available to classify economic, ecological, and sensitive species, as well as ecosystems and habitats of interests.
- Richness of genetic diversity for the development of sustainable cultivars and breeds of domestic animals.
- Improving legal and economic conditions for biodiversity conservation.

Policy and legislative context for agrobiodiversity conservation

National policies and the CBD

Key Article	Theme	Action Required	Current status
6	General measure for conservation and sustainable use	Review and implementation the national biological strategy and action plan	Active, 5 th strategy and action plan (2014)
8	<i>In situ</i> conservation	Establish protected areas (PA), develop guidelines for PA, promote protection of ecosystems	Active, but need strengthening
9	<i>Ex situ</i> conservation	Establishment of national gene bank using appropriate conservation technologies as well generating Characterization and Evaluation data/information	Active, but need strengthening esp. gene bank that apply international standards

Policy and legislative context for agrobiodiversity conservation

National policies and the CBD

Key Article	Theme	Action Required	Current status
10	Sustainable use of components of biological diversity	To develop innovative approaches to use biological diversity	Limited use
12	Research and training	Support universities and research centers	No particular program
17	Exchange of information	Facilitate the exchange of information from all publicly available sources relevant to conservation and use	Genetic Resources Information Platform (GRIP)
19	Handling of biotech. and distribution of its benefits	<ul style="list-style-type: none"> Review and adopt property rights. Implementing Cartagena and Nagoya protocols. 	On-going

Integration with global conservation agenda

Background about our agrobiodiversity

It is very important to the world and the region for conserving our agrobiodiversity

- Species evolved in harsh environment
- Center for diversity for many Crop Wild Relatives species
- Traditional knowledge that accumulated in the country for conservation and use because Oman location in the 'Old World'

Integration with global conservation agenda

- This strategy expected to meet the international needs towards effective implementation of international conventions (e.g. CBD and ITPGRFA) and protocols tackled and with best management and sustainable use of PGR.
- Enhance the international collaboration on effective and sustainable use of PGR through joint projects that meet social and environmental challenges (e.g. climate change)

Challenges and Research Priorities

What are challenges on conservation and use of agrobiodiversity?

How we may overcome such challenges?

What are research priorities?