



THE SUWON FRAMEWORK FOR CONSERVATION AND USE OF AGROBIODIVERSITY

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Agrobiodiversity: a largely untapped potential

Increased agricultural
reliance on major crops

Green Revolution

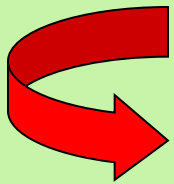
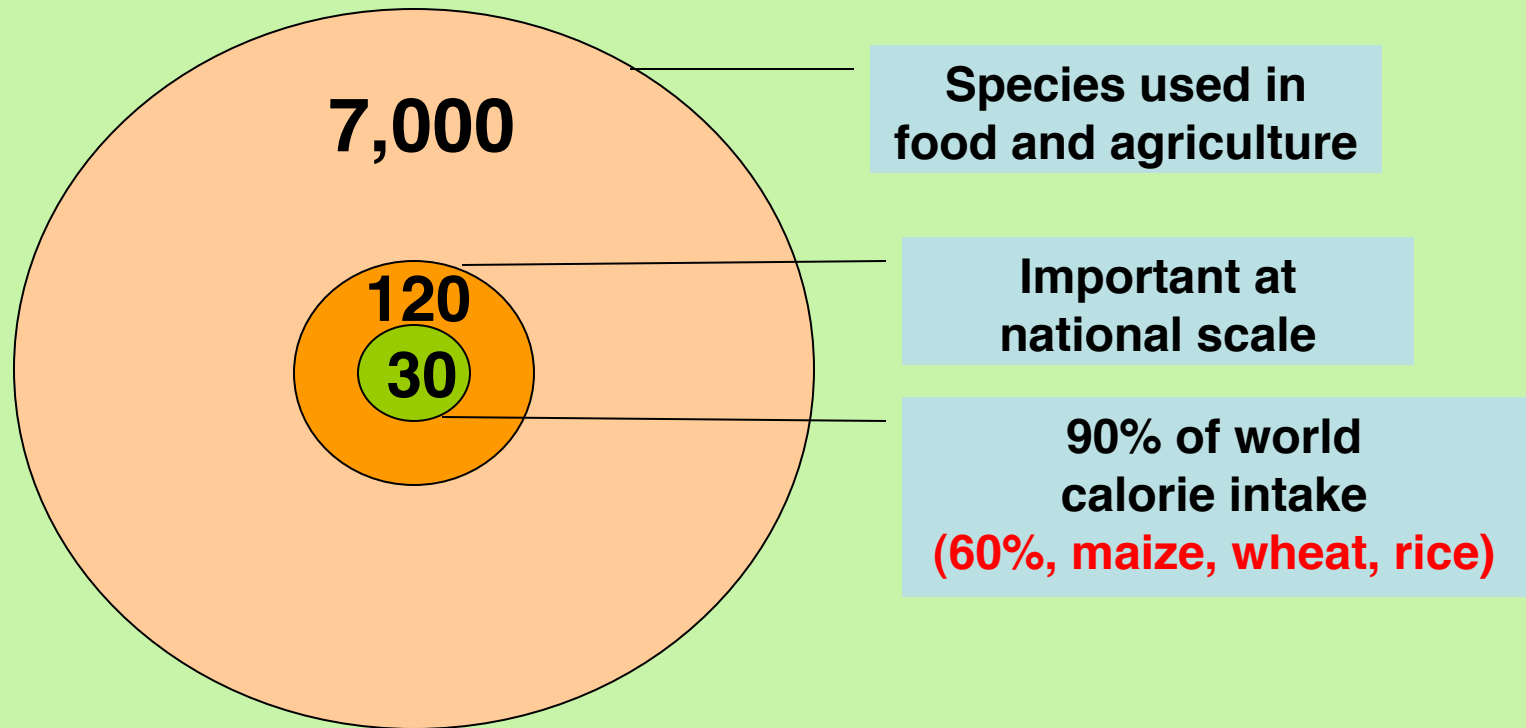
Decreased agricultural
sustainability

Increased economic
opportunities for
commodity crops

Globalization

Further marginalization
of local agrobiodiversity

Agrobiodiversity : a largely untapped potential



NEED TO RETHINK ABOUT THE STRATEGY:
situation largely overlooks at micronutrients and non-micronutrient factors, important for healthy life.

Sustainable Use of Agrobiodiversity in Asia-Pacific Region

Rationale

- The region is center of diversity of crops and livestock
- The region houses 58% world population but only 38% of Agricultural land
- Over 80% of world's small and marginal farmers
- Resource poor farmers are largely dependent on diversity of minor crops and crop wild relatives
- Rich mosaic of people and culture contributed towards enormous diversity of cultivated plants and domestic animals
- Population migration and trade enabled introduction of new species and varieties
- Genetic diversity in indigenous and introduced species enhanced through extensive exchange of germplasm

Sustainable Use of Agrobiodiversity in Asia-Pacific Region

Challenges

- 60% of world poor and hungry (highest in South Asia)
- Undernourished is the highest globally
- Food and nutritional insecurity
- Climate change – increased risk, bio-insecurity, vulnerability
- Competing land use – food vs feed vs fuel
- Limited resource base (land and water)
- Fast declining water and agrobiodiversity with intensification of agriculture
- Majority of producers are small and marginal farmers
- Dwindling support for NARES



International Symposium on Sustainable Agricultural Development and Use of Agrobiodiversity in the Asia-Pacific Region, Suwon, Republic of Korea, 13-15 October, 2010



Objectives

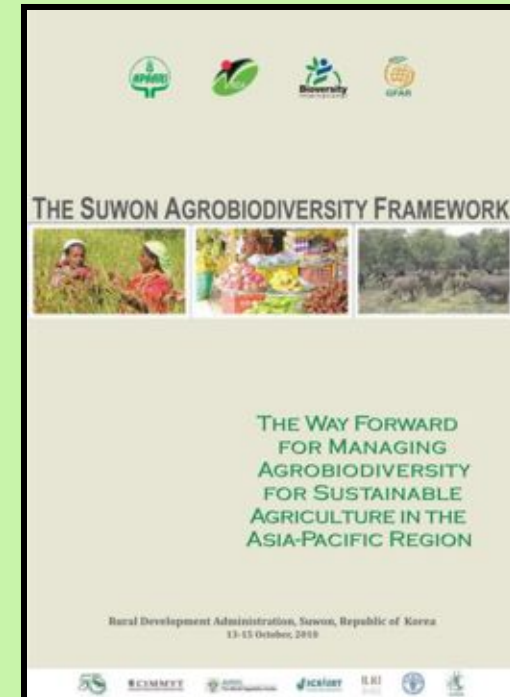
- To review the current status and trends for conservation of agrobiodiversity through use for sustainable agricultural development
- To bring together stakeholders to discuss issues that hinders the use and exchange of agrobiodiversity
- To discuss issues and concerns relating to access and benefit sharing
- To discuss policy framework and research priorities of NARS

Outputs

- Better understanding on the status of conservation and utilization of genetic resources for sustainable agricultural development
- Strengthened partnership to ensure access and benefit sharing of agrobiodiversity for improved livelihood
- Redefined the policy and research agenda for conservation through use of agrobiodiversity
- Endorsed "The Suwon Agrobiodiversity Framework: The way forward for managing agrobiodiversity for sustainable agriculture"

Suwon Agrobiodiversity Framework

- The agricultural biodiversity research and development framework for Asia-Pacific region
- Adopted during the 'International Symposium on Sustainable Agricultural Development and Use of Agrobiodiversity in the Asia Pacific Region' held at Suwon, Korea in October 2010.
- Agrobiodiversity Framework endorsed by APAARI
- The framework aims to provide a strategic approach towards the management and use of agrobiodiversity through regional collaboration and partnerships



Integrated Systems Approach



- Builds on current partnerships and eco-regional experiences and integrates partnerships across different sectors of genetic resources
- Seeks to ensure the continued availability of critical genetic resources to improve:
 - Agricultural productivity and resilience of the production systems
 - Quality of the supply chains through effective collaboration of different stakeholders
- Brings together work on microbes, crop plants, forest trees, livestock and fish genetic resources
- Combines research on genetic, biological, agronomical, socio-cultural, market and economic aspects
- Encourages different organizations and local communities to work in partnership for collective actions

Focus on Research and Development

- Studies to enhance use of genetic resources through sub-set approach
- Pre-breeding and participatory breeding to enhance utilization
- Strategies and technologies to enhance *in situ* and *ex situ* conservation through use
 - Understanding of diversity distribution and identification of useful traits
 - Enhancing *in situ* and on-farm conservation of landraces and wild relatives
 - Supporting communities to use local genetic diversity to reduce vulnerability and crop loss and resilience of production systems
 - Promoting cost-effective complementary conservation strategies



Focus on Research and Development



- **Assessment of the agrobiodiversity richness and status relative to economic, social and cultural factors**
 - Assessment of genetic erosion and restoration of lost diversity
 - Assessing the relationship of poverty and other socio-economic factors
 - Documenting traditional knowledge and linking it with conservation and use of genetic resources
- **Interdisciplinary studies on the invaluable ecosystem services for agriculture**
 - Role of wild ecosystems
 - Rehabilitation and maintenance of diverse landscape mosaics of agricultural lands
 - Adaptation of wild ecosystems to changing environments



Focus on Research and Development



- **Information systems and tools for data exchange**
 - Developing facilities for online access to wide range of databases
 - Common descriptors for recording and reporting information
- **Supportive policies, laws and strategies to enable enhanced exchange and use of genetic resources**
 - Assessing impact of international policies/laws
 - Assisting countries for implementing ITPGRFA effectively



Areas of Regional Collaboration



L.Guarino, Guarino

- **Developing national agrobiodiversity plans and integrating them into regional and collaborative frameworks**

- Enhancing food security and sustainable agricultural development
- Convincing policy makers and other stakeholders about importance of agrobiodiversity
- Assessing national and regional priorities

- **Increasing R&D collaboration on agrobiodiversity conservation and use**

- Collaboration and support for collecting, understanding and maintaining endangered genetic resources
- Enhanced collaboration for underutilized crops: small millets, minor legumes, wild tropical fruits, indigenous vegetables



Thomas Sennett (World Bank)

Areas of Regional Collaboration

- **Improving access and sharing of information**
 - Access and sharing of information on national genebank collections
 - International centers must ensure sharing of information on PGR
 - Support the maintenance and use of GPA-NISM
- **Strengthening public awareness on agrobiodiversity**
 - Need to make curriculum more innovative and interesting
 - Increase awareness and support through scholarship programs
 - Emphasis on public awareness on agrobiodiversity targeting policy makers and consumers
 - Need for policy advocacy on agrobiodiversity



Areas of Regional Collaboration

- **Enhancing exchange and use of genetic resources**
 - Multilateral system for exchange of PGR through SMTA
 - Enhanced cooperation on plant quarantine issues including pest risk analysis for safe movement of germplasm
 - Promoting implementation of GPA through policy advocacy and NISM-GPA
 - Facilitation role of APAARI on communication between Treaty Secretariat and NARS
- **Role of stakeholders in strengthening agrobiodiversity conservation and use**
 - Better integration of CRPs with national plans and regional/global strategies
 - Effective linkage of sub-regional networks with regional/global organizations i.e. APAARI, GFAR, FAO
 - Strengthen partnerships between regional PGR Networks and Crop Networks for exchange of genetic resources
 - Promote partnership with CSOs and private sector for more effective public awareness, education and advocacy

Suwon Framework - Moving Forward

- Encourage national systems to adopt the Framework in their national agrobiodiversity work plans
- Encourage donor/funding organizations to use the Framework as basis in supporting initiatives on agrobiodiversity
- Strengthen capacity of Subregional Networks and Crop Networks to follow through the Framework
- Develop regional collaborative projects based on the Framework
- Catalyse national systems to strengthen their breeding programs through the use of trait-specific germplasm
- Support activities that promote the use of underutilized crops
- Support policies for enhancing agrobiodiversity conservation and use



Regional Workshop for Implementation of Suwon Agrobiodiversity Framework Kuala Lumpur, Malaysia 4-6 November, 2011



Organized by

- APPARI and Bioversity International

Supported by

- APAARI, Bioversity, GFAR, FAO, ADB

Participants

- NARS: Malaysia, India, Indonesia, Philippines, Vietnam, Cambodia, China
- International Centres: Bioversity, IRRI, ICRISAT, ICRAF, FAO, CFF
- NGOs: Li-BIRD, Nepal; ANGOC, Philippines

Regional Workshop for Implementation of Suwon Agrobiodiversity Framework

Objectives

- To develop a regional Road Map for implementing Suwon Agrobiodiversity Framework
- To strengthen networking and collaboration among various stakeholders in the Asia-Pacific region
- To develop regional collaborative projects and in line with prospective donors' priorities
- To identify countries participating in the project, their role and the focal persons
- To identify and link up with possible funding organizations

Regional Workshop for Implementation of Suwon Agrobiodiversity Framework

Program Structure

- Thematic presentations
- Working Group Discussions (3)
 - Topic prioritization
 - Objective setting
 - Methodology, possible approaches, expected outputs
 - Refining group outputs, identify potential partners, assign tasks for future follow-up
- Priority Research ideas conceptualized - For addressing issues relation to gender, poverty, sustainable agriculture, climate change

Regional Workshop for Implementation of Suwon Agrobiodiversity Framework



Project Concept Notes

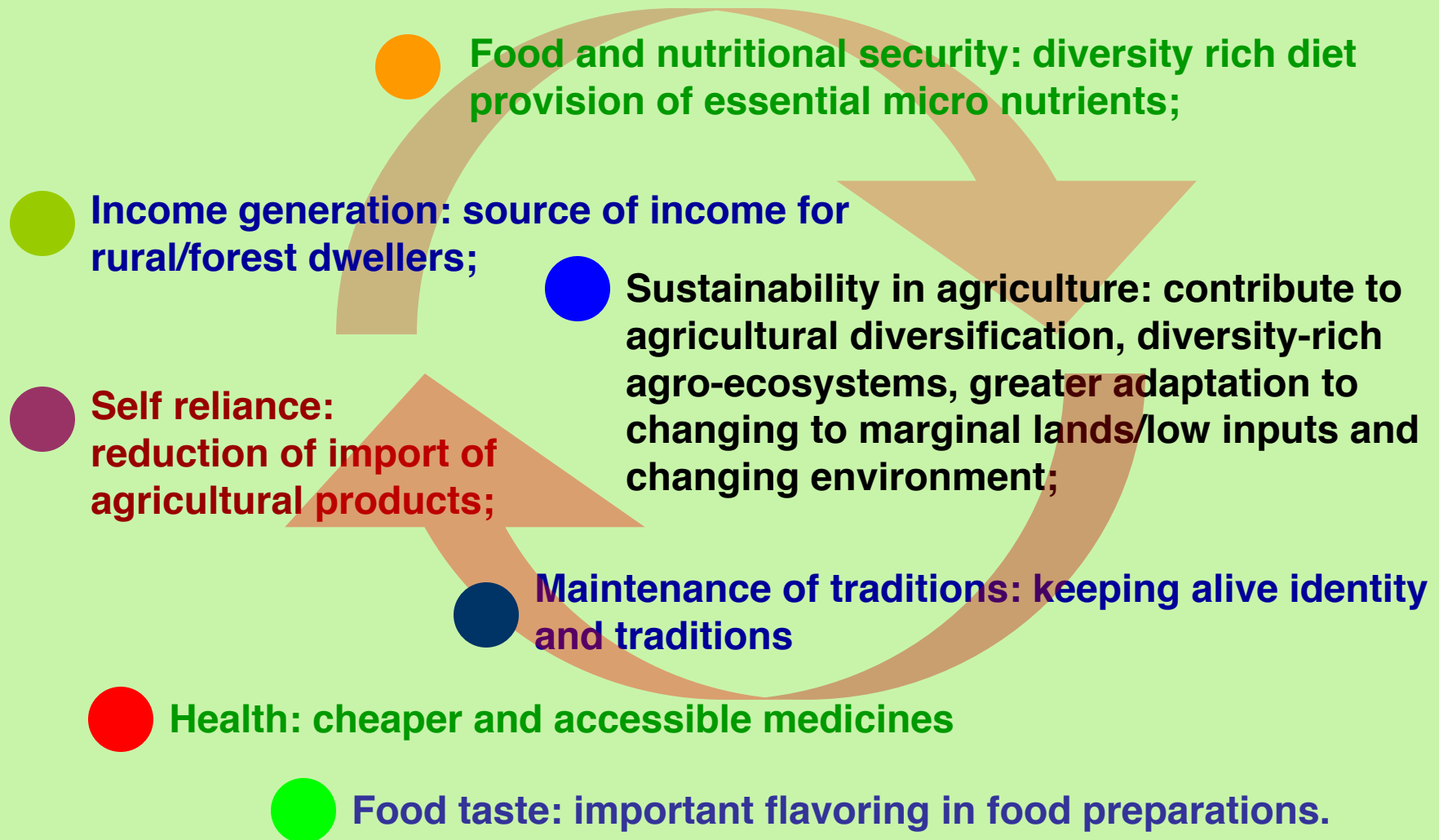
- Application of strategies and technologies to enhance *in situ* and *ex situ* conservation through use with the goal of enhancing livelihood and reducing poverty
 - **Project 1:** Enhancing utilization of germplasm for optimizing use of water, nutrients, saline soils and pesticides for sustainable crop production
 - **Project 2:** Acquisition and accessing of crop wild relatives and accessing novel alleles for enhanced use
 - **Project 3:** Enhancing use of underutilized species for improved livelihoods and diversified diets

Regional Workshop for Implementation of Suwon Agrobiodiversity Framework



- Assessment of the agrobiodiversity richness and status relative to economic, social and cultural factors
 - **Project 4:** Increased availability of and accessibility to the rich agrobiodiversity for conservation and improvement of livelihoods of farmers
- Interdisciplinary studies on interaction between agricultural and wild ecosystems, and ecosystem services for agriculture
 - **Project 5 :** Understanding and managing changes in diversity and local thresholds to the sustainability of ecosystem services in Asian land use systems

Contribution of NUS to Livelihood



Initiatives by APAARI on NUS

- **Success Stories /Status Reports**

- Strengthening of Plant Genetic Resources for Food and Agriculture: Conservation and Utilization in the Pacific (2011)
- Short Duration Mungbean: A New Success in South Asia (2010)
- Taro Improvement and Development in Papua New Guinea (2009)
- Lentil Improvement in Bangladesh (2004)

- **Workshops/Conferences/Expert Consultations**

- Global Consultation on Agrobiodiversity in India (October 2012)
- Regional Workshop on Suwon Agrobiodiversity Framework (2011)
- Regional Consultation on Crops for the Future : Towards Food, Nutritional, Economic and Environmental Security in the Pacific, (2009)
- Expert Consultation on Biofuels (2007)
- Expert Consultation on Agricultural Innovations: Linking Farmers to Markets (2006)

- **Participation of Stakeholders in Conferences/Workshops**



THANK YOU