

**SUMMARY OF THE FSN FORUM DISCUSSION TOPIC:  
AGRICULTURAL BIODIVERSITY  
FROM 7<sup>TH</sup> TO 31<sup>ST</sup> JANUARY 2008**

**I. IMPORTANCE OF BIODIVERSITY TO FOOD SECURITY**

---

- Biodiversity contributes actively to the sustainable provision of ecosystem services, to food provision and food security (R. Huffaker, D. Navarro Ros)
- Agricultural ecosystems sustain human life; they supply food and drinking water, maintain a library of genetic resources, preserve and regenerate soils, fix nitrogen and carbon, recycle nutrients, control floods, filter pollutants, pollinate crops and provide livelihoods for over half of the world's population, and for about three quarters of the World's poorest. (B. Neves)
- There is an increasing recognition of the importance of adopting ecosystem management practices. (B. Neves) and good FSN programmes do look at indigenous grain, vegetable and fruit development (K. Gallagher)

**II. ISSUES**

---

- Biodiversity aspects are often overlooked during design and implementation of most of the food security projects (K. Gallagher, E. Elamin). Some of these aspects include:
  - Native food or forest-based products (K. Gallagher, E. Elamin)
  - Linkage between Biodiversity and poverty (poverty leads to the deterioration of biodiversity) (E. Elamin, E. F. Ismail)
  - Value of ecosystem services to the poor (economic valuation vs. ecosystem services) (E F Ismail)
- Inappropriate communication of biodiversity information (e.g. usefulness of many indigenous plants), problematic availability and access to information of the local communities, and unsuitable package of information (i.e. technical language)
- Lack of financial resources for action.
- Ecosystems are being threatened by the combined effects of population pressure, rapid economic growth, the demands of greater global integration and climate change (B. Neves)
- Few look at the linkage between Biodiversity and poverty: utilization of traditional foods beyond the current level might lead to deterioration on biodiversity and hence to accelerating poverty in particular on marginal dry lands (E. Elamin)
- Ethical issue: the right of any species to exist without needing to be defined as "useful" (K. Gallagher)
- Harnessing crop diversity has been ignored over the years (O. Rupela)

### III. GOOD PRACTICES AND SUGGESTIONS FOR THE WAY FORWARD

---

- **Good practices**

- Promotion of African traditional leafy green vegetables in Kenya (L. Guarino, A. Kimani)
  - Creating compensation for ecosystem services, which benefits could/will be generated in the form of additional income and improved food security as well as protection and enhancement of global and regional ecosystems, enabling and enhancing environmental goods and services as promoted by the PESAL project (see references) (B. Neves)
  - Organic farming in India has proven to be most beneficial to FSN as well as to biodiversity (R.A. Ram)
- Agro-biodiversity should be addressed much more in FSN programmes, including:
    - Looking at greater use of local varieties and plants,
    - Incorporating landscape issues where plants and animals are integrated into mixed systems and stronger participation of local knowledge holders in both of these areas.
    - Looking at non-timber forest products (in forest communities)
    - Biodiversity from aquatic resources (e.g. rice systems, mangroves) (K. Gallagher)
  - Broaden the scope of biodiversity to encompass both the macro and global policy levels that addresses the relations between the environment and development (E. F Ismail)
  - Facilitate biodiversity components, which will bring the gains of biodiversity to the poor through education, knowledge enhancement and transfer, to make a real and persistent change in the attitude of people in developing world (E. F Ismail)
  - Develop indigenous-SMEs oriented food industry to alleviate both poverty and hunger (E. F Ismail)
  - Multi-stakeholder approach to agro- biodiversity: ministry of agriculture and forestry, as well as other government ministries, particularly the ministry of education, as well as NGOs agencies should be involved (E. F. Ismail, I. Mathew)
  - Make information accessible and affordable at local levels (E.F. Ismail)
  - Creation and dissemination of informative documents written in simple language which outline best practices and information about biodiversity and its importance to achieve FSN (E.F. Ismail, I. Mathew, O. Rupela, S. Mehta)
  - Promote organic farming and traditional agricultural methods, which have better food security and nutritional values for the sustainability of the agri-rural communities compared to conventional agriculture and also has good impact on Biodiversity (O. Rupela, R .A. RAM, S. Mehta)
  - Promote the use of traditional leafy vegetables, cereals and pulses (L. Guarino, I. Mathew, A. Kimani)
  - Promote good food and nutrition habits and practices of the needy population (E. F Ismail,

I Mathew)

- Consider food consumption patterns as a starting point would make it easier to link agriculture, health and nutrition, focus on biodiversity and sustainability. Investigating the scientific basis for local perceptions must be used to set the agenda for agricultural biodiversity. These points must be included in the curricula and training of extension agricultural workers and health workers in order to have a mind set and focus at field level that favour agricultural biodiversity and FSN (S. H. Thilsted)

#### IV. REFERENCES

---

- **Biodiversity and Poverty Reduction** – The importance of biodiversity for ecosystem services, by N. Ash and M. Jenkins (UNEP-WCMC): <http://www.unep-wcmc.org/latenews/Biodiversity%20and%20Poverty%20Reduction%20UNEP-WCMC.pdf> (R. Huffaker)
- **FAO platform on Biological Diversity** - How biodiversity benefits natural and agricultural ecosystems: <http://www.fao.org/biodiversity/index.asp> (D. Navarro Ros)
- **FAO Biodiversity Awareness folder** – Several papers relevant to the discussion: [http://www.fao.org/biodiversity/doc\\_en.asp](http://www.fao.org/biodiversity/doc_en.asp) (D. Navarro Ros)
- **Bibliography of the Genetic Resources of Traditional African vegetables** – Underutilized species, by N.M. Mnzava, J.A. Dearing, L. Guarino, J.A. Chweya: <http://www.underutilizedspecies.org/documents/PUBLICATIONS/neglectedleafygreenvegetablecrops\nafricavol2.pdf> (L. Guarino)
- **African Leafy Vegetables** – Their role in the World Health Organization's Global fruit and vegetables initiative, by Francisca I. Smith and Pablo Eyzaguirre: [http://ajfand.net/Issue14/PDFs/SMITH-IPGRI\\_1.pdf](http://ajfand.net/Issue14/PDFs/SMITH-IPGRI_1.pdf) (L. Guarino)
- **NVMA Tasks Government on Compensation on Avian Flu** – Suggestions from commentators in Nigeria, from Nigerian Tribune: <http://www.tribune.com.ng/07112007/agric.html> (L. Guarino)
- **South Africa Turning its Back on Local Greens?** – From Agricultural Biodiversity Weblog, by L. Guarino: <http://agro.biodiver.se/2008/01/south-africa-turning-its-back-on-local-greens/> (L. Guarino)
- **FAO PES Dedicated Website** –Available from mid February at: [www.fao.org/es/esa/pes](http://www.fao.org/es/esa/pes) (B.Neves)
- **The State of Food and Agriculture 2007-** Paying Farmers for Environmental Services, FAO 2007: <http://www.fao.org/docrep/010/a1200e/a1200e00.htm> (B.Neves)
- **Nutritional Quality of Organic Versus Conventional Fruit, Grains and Vegetables** from The journal of Alternative and Complementary Medicine: [http://km.fao.org/fsn/resources/fsn\\_viewresdet.html?r=333](http://km.fao.org/fsn/resources/fsn_viewresdet.html?r=333) (O.Rupela, S.Mehta)
- **Linking human nutrition and fisheries:** Incorporating micronutrient-dense, small indigenous fish species in carp polyculture production in Bangladesh: [http://km.fao.org/fsn/resources/fsn\\_viewresdet.html?no\\_cache=1&r=343&nocache=1](http://km.fao.org/fsn/resources/fsn_viewresdet.html?no_cache=1&r=343&nocache=1)
- **Organic farming in India** (R.A Ram) [http://km.fao.org/fsn/resources/fsn\\_viewresdet.html?no\\_cache=1&r=350&nocache=1](http://km.fao.org/fsn/resources/fsn_viewresdet.html?no_cache=1&r=350&nocache=1)