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# The International Treaty

ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE



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## THIRD MEETING OF THE AD HOC TECHNICAL COMMITTEE ON SUSTAINABLE USE OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Vienna , Austria, 24 and 25 October 2016

**International Organizations and Sustainable Use of Plant Genetic Resources for Food and Agriculture**

1. The document, prepared by the International Organizations listed below, is for the information of the Ad Hoc Technical Committee on Sustainable Use. Some minor editorial changes have been made to uniform the different documents:
  - A. Bioversity International
  - B. Food and Agriculture Organization – FAO (Agriculture and Consumer Protection Department)
  - C. Global Forum on Agricultural Research - GFAR
  - D. Global Crop Diversity Trust - GCDT
  - E. Convention on Biological Diversity (CBD) – See Appendix I

# **BIOVERSITY INTERNATIONAL CONTRIBUTIONS TO THE IMPLEMENTATION OF ARTICLE 6 OF THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE<sup>1</sup>**

In the last twenty years, Bioversity International has coordinated or has been involved in a number of initiatives, projects and activities that contribute to the implementation of Article 6 of the ITPGRFA. In this note, we summarize how Bioversity's work has contributed to each of the measures indicated in Article 6.2 from a) to f) and present examples of projects that are aligned with these measures.

## *6.2 (a) pursuing fair agricultural policies that promote, as appropriate, the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources;*

Working with a wide range of partners, Bioversity research how policies affect the conservation and management of plant genetic resources. Various projects have identified and proposed public policy options that provide incentives for farmers, natural resource managers, research organizations and food industry to maintain diverse farming systems.

The Genetic Resources Policy Initiative (GRPI, 2002-present) investigates and supports model processes for multi-stakeholder, multi-disciplinary and multi-sectoral research and capacity building as inputs into developing national laws affecting the conservation and use of genetic resources for food and agriculture. During its first phase, GRPI was active in Egypt, Nepal, Peru, Uganda, Vietnam, Zambia, as well as East Africa and West and Central Africa regions. In its second phase, GRPI focused on the implementation of the ITPGRFA in Costa Rica, Guatemala, Burkina Faso, Ivory Coast, Uganda,

Rwanda, Bhutan and Nepal. Over the years, the Initiative has generated guidelines, methods and tools for national authorities to address policy issues related to the conservation, exchange and use of plant genetic resources for food and agriculture in an informed and participatory manner. GRPI has also contributed to the development and implementation of national legal frameworks that are in line with the Treaty objectives and provisions, particularly in relation to its Multilateral System of Access and Benefit-Sharing, Farmers' Rights and Sustainable Use of Plant Genetic Resources.

Key publication: Blog of the Genetic Resources Policy Initiative: <https://grpi2.wordpress.com/>

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Bioversity International, in collaboration with the United Nations University - Institute of Advanced Studies (UNU-IAS) and the Satoyama Initiative have developed a set of indicators to help assess the resilience of rural landscapes and their communities. These indicators have been used by different organizations in a number of situations to obtain a clearer understanding of the components of resilience in a distinctive geographical area and to empower local communities with the tools to understand their own resilience, what can erode it, and what can increase it. The indicators are a useful tool to appreciate to what extent existing public policies have a real impact on farming communities' sustainability and resilience.

<sup>1</sup> This summary has been written for the Secretariat of the ITPGRFA in preparation for the Third Meeting of the Ad Hoc Technical Committee on Sustainable Use of Plant Genetic Resources, Vienna, October 2016

Key publication: Bergamini, N., Blasiak, R., Eyzaguirre, P., Ichikawa, K., Mijatovic, D., Nakao, F. and Subramanian, S.M., 2013. Indicators of resilience in socio-ecological production landscapes (SEPLs), UNU-IAS policy report. *United Nations University Institute of Advanced Studies, Yokohama*. Available at: [http://archive.ias.unu.edu/resource\\_centre/Indicators-of-resilience-in-sepls\\_ev.pdf](http://archive.ias.unu.edu/resource_centre/Indicators-of-resilience-in-sepls_ev.pdf)

*6.2 (b) strengthening research which enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers, especially those who generate and use their own varieties and apply ecological principles in maintaining soil fertility and in combating diseases, weeds and pests;*

Various Bioversity projects aim to generate new knowledge about how the management of inter- and intra-species variation helps farmers deal with biotic and abiotic stresses and at the same time contribute to the sustainability of agricultural systems.

Since 2006, Bioversity International has been working with national partners in China, Ecuador, Morocco and Uganda to see how planting different varieties of the same crop in mixtures, can reduce pest and disease damage. Recent findings from trials with the National Agricultural Research Organization in Uganda show that mixing varieties resistant to certain pests and diseases, with those that are more susceptible, greatly reduces the incidence of that pest or disease. With common bean, we found this to be most effective when at least 50% of a resistant variety is mixed into a plot. For bananas, farmers have reported a 75% reduction in the presence of weevils in their mixtures. It is important to note that many of the resistant varieties we are finding are actually local crop varieties. Key publication: Mulumba, J. W., Nankya, R., Adokorach, J., Kiwuka, C., Fadda, C., De Santis, P., & Jarvis, D. I. (2012). A risk-minimizing argument for traditional crop varietal diversity use to reduce pest and disease damage in agricultural ecosystems of Uganda. *Agriculture, ecosystems & environment*, 157, 70-86.

Available at: <http://www.sciencedirect.com/science/article/pii/S0167880912000746>

*6.2 (c) promoting, as appropriate, plant breeding efforts which, with the participation of farmers, particularly in developing countries, strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas;*

Bioversity has coordinated a number of initiatives in which scientists and farmers work together to develop and select varieties that are adapted to harsh environmental conditions and that respond to farmers' preferences. New varieties resulting from these joint efforts have been released in various countries and traditional varieties selected by farmers have been multiplied and disseminated through local seed systems.

From 1998 to 2011, Bioversity International, Local Initiatives for Biodiversity Research and Development (LI-BIRD) and the Nepalese Agricultural Research Council led a participatory crop improvement programme in high-altitude villages of Nepal and in the lowland area of *terai* in Nepal. This programme encompassed contractual, consultative, collaborative and collegial modes of participation. Farmers contributed in goal setting, in identifying traits and in providing a testing system that was multi-farmer, multi-locational and allowed the trade-off between many traits.

Breeders contributed their more formal scientific knowledge to this process and assisted in the scaling up of products identified from the participatory varietal selection (PVS) and participatory plant breeding (PPB) programmes. Breeding methods were adapted to accommodate the opportunities and constraints of PPB, and used a low-cross-number, high population-size breeding strategy. Within this strategy, modified bulk population breeding was used extensively. The PVS and PPB programmes identified or produced many varieties that farmers prefer.

Key publication: Joshi, K. D., Sthapit, B., Subedi, M., Witcombe, J. R. 2002. Participatory plant breeding in 10 rice in Nepal. In: Cleveland, D. A., Soleri, D. (eds.) Farmers, scientists and plant breeding: integrating knowledge and practice. pp. 239-269. CABI, Oxfordshire, UK

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Bioversity ‘Seeds for Needs’ initiative has involved 11 countries, various crops – including rice, beans, sorghum, wheat and barley – and around 25,000 farmers. In Ethiopia ‘Seeds for Needs’ has been active since 2009 to bring farmers high-quality and diverse seeds that meet their needs. Farmers are directly involved in evaluating and selecting varieties of barley and durum wheat (most of which are traditional landraces conserved in Ethiopia’s national genebank), providing valuable feedback on their preferred traits to scientists. Combining scientific data with the experiences and knowledge of farmers is a key element of this initiative. Research found that more than 20% of the traditional Ethiopian durum wheat landraces performed better than commercial varieties bred specifically for drought resistance. From 2010 to 2013 varietal diversity increased by 23% across the initiative’s sites and more than half are still sharing these varieties within their seed networks. As a result, the initiative now works with over 1,500 farmers in the country. In 2014 a community seedbank was opened in the Amhara region with the Ethiopian Biodiversity Institute, to provide a reliable source of good-quality seeds to farmers in the area.

Key publication: Seeds for Needs page in Bioversity International website:

<http://www.bioversityinternational.org/seeds-for-needs/>

*6.2 (d) broadening the genetic base of crops and increasing the range of genetic diversity available to farmers;*

Bioversity extensive work on the phenotypic and molecular characterization of traditional and local varieties has contributed to identify germplasm with promising characteristics for genetic improvement efforts. The introduction of this germplasm in plant breeding (often participatory plant breeding) has led to broadening the genetic base of the cultivars resulting from plant improvement efforts.

Plant breeding and the production of new cultivars is widely regarded as underpinning agriculture and the development of society. Yet crop failures and risks associated with genetic uniformity on large cultivated areas, yield stagnation, and persistent failures to achieve sustainable are widespread problems. Therefore, the effective utilization of plant genetic resources by enhancing and expanding the genetic base from which future cultivars will be generated becomes essential. Under this context, Bioversity International collaborated from 1995 to 2001 with the United Nations Food and

Agricultural Organization, other CGIAR Centres, national agricultural research centres, crops networks and other relevant institutions in a the Base Broadening Initiative, which sought to identify and evaluate ways in which breeding programmes can make use of greater amount of genetic variation. Key publication: Cooper, H. D., Spillane, C. and Hodgkin, T. (eds). 2001. Broadening the genetic base of crop production. CABI, Oxfordshire, UK.

*6.3 (e) promoting, as appropriate, the expanded use of local and locally adopted crops, varieties and underutilized crops;*

Bioversity International generates evidences about how traditional crops and varieties contribute or can contribute to respond to food and nutrition security needs, cultural preferences and environmental challenges, including unpredictable climatic changes and pests and diseases. Based on more than a decade of research for development work in various countries, Bioversity has developed methods and tools for the effective management and conservation of local and traditional varieties on farm. A long standing programme on neglected and underutilized species has contributed to first identify promising neglected species and then raise their profile in local and national food systems in Bolivia, Brazil, India, Kenya, Kyrgyzstan, Malawi, Mali, Mozambique, Nepal, Peru, Rwanda, South Africa, Sri Lanka, Tajikistan, Tanzania, Turkey, Uganda and Yemen.

The programme ‘Strengthening the scientific basis of *in situ* conservation of agrobiodiversity on farm’ (1997-2002) provided evidence of the overall trends in crop varietal diversity on farm for 27 crop species. Measurements of richness, evenness, and divergence showed that considerable crop genetic diversity continues to be maintained on farm, in the form of traditional crop varieties. It also identified best practices at all governance levels (from household to international) for the effective management of traditional varieties.

Key publications: Jarvis, D. et al. 2008. A global perspective of the richness and evenness of traditional crop-variety diversity maintained by farming communities. PNAS, 15, 14. Available at: <http://www.pnas.org/content/105/14/5326.full>; and

Jarvis, D., Hodgkin, T., Sthapit, B., Fadda, C. and López Noriega, I. 2011. An Heuristic Framework for Identifying Multiple Ways of Supporting the Conservation and Use of Traditional Crop Varieties within the Agricultural Production System, Critical Reviews in Plant Sciences, 30:1-2, 125-176. Available at: <http://www.tandfonline.com/doi/abs/10.1080/07352689.2011.554358>

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The project ‘Mainstreaming Biodiversity Conservation and Sustainable Use for Improved Nutrition and Well-Being’ is led by Brazil, Kenya, Sri Lanka & Turkey, coordinated by Bioversity and funded by the Global Environmental Facility. Building on its partner’s expertise, the project is addressing growing concerns over the rapid disappearance of agricultural biodiversity, particularly traditional crops and wild species with nutritional potential. Once rich agricultural biodiversity is disappearing due to environmental pressures, unsuitable land management practices and changes in consumer preferences, dietary patterns and lifestyles. Also disappearing is the traditional knowledge associated with the preparation, storage and cultural use of these foods, which, in the past, made up a significant proportion of local diets. The Project hence builds on growing evidence showing that agricultural biodiversity has the potential to fulfil many of the nutritional requirements needed for a healthy and balanced diet and thus can help reverse the alarming trends in under- and over-nutrition afflicting many countries worldwide. The evidence will be used to conserve and promote the use of these species in the four countries by:

- Raising awareness of their importance
- Creating markets and value chains for their use
- Making sure that future policies and strategies that tackle malnutrition include the sustainable use of agricultural biodiversity as a cost-effective solution to rising diet-related nutrition and health conditions – such as nutrient deficiencies and obesity

Key publication: Project website: <http://www.b4fn.org/>, and Hunter, D., Özkan, I., Moura de Oliveira Beltrame, D., Samarasringhe, W. L. G., Wasike, V. W., Charrondière, U. R., Borelli, T., Sokolow, J. 2016. Enabled or disabled: Is the environment right for using biodiversity to improve nutrition? Frontiers in Nutrition, 3, 14.

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Nutritious millets were once a strong part of traditional diets in Southern India before agricultural subsidies shifted attention to rice, wheat and maize and they became a ‘forgotten food’. Bioversity International has been working for almost 15 years with partners in India, such as the M.S. Swaminathan Foundation and the Indian Council of Agricultural Research to promote the conservation and use of millets. Results India’s National Food Security Act incorporated millets into the public distribution system in 2013, meaning these nutritious grains are now available to more than 800 million people at a subsidized rate. Improved market links for small-scale producers have seen restaurants adding millet-based dishes to their menus, and new income opportunities for women producing millet-based snacks. In 12 districts in Central and South India, switching from white rice to minor millets in school lunches resulted in increased hemoglobin levels in children – up to 37% higher than the control group – within 3 months.

Key publication: Bergamini, N., Padulosi, S., Ravi, S.B. and Yenagi, N., 2013. Minor millets in India: a neglected crop goes mainstream. In: Fanzo, J., Hunter, D., Borelli, T., Mattei, F. (eds.) Diversifying food and diets: using agricultural biodiversity to improve nutrition and health pp. 313-325. Routledge: London, UK; Available at: [http://www.bioversityinternational.org/uploads/tx\\_news/Diversifying\\_food\\_and\\_diets\\_1688\\_02.pdf](http://www.bioversityinternational.org/uploads/tx_news/Diversifying_food_and_diets_1688_02.pdf) and Padulosi, S., Thompson, J., Rudebjer, P. 2013. Fighting poverty, hunger and malnutrition with neglected and underutilized species (NUS): needs, challenges and the way forward. Bioversity International, Rome. Available at: [http://www.bioversityinternational.org/uploads/tx\\_news/Fighting\\_poverty\\_hunger\\_and\\_malnutrition\\_with\\_neglected\\_and\\_underutilized\\_species\\_NUS\\_1671\\_03.pdf](http://www.bioversityinternational.org/uploads/tx_news/Fighting_poverty_hunger_and_malnutrition_with_neglected_and_underutilized_species_NUS_1671_03.pdf)

*6.2 (f) supporting, as appropriate, the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops and creating strong links to plant breeding and agricultural development in order to reduce crop vulnerability and genetic erosion, and promote increased world food production compatible with sustainable development;*

Much of Bioversity International work in the last five to ten years has focused on reducing the vulnerability of farming communities, particularly those in marginal areas of developing countries, in front of rapid environmental and socio-economic changes. In this context, Bioversity has developed and made available tools and methods to help a range of actors integrate crop diversity in their efforts to increase the sustainability and resilience of agricultural systems. With the objective of enhancing smallholder farmers’ access to crop and varietal diversity, Bioversity has supported the establishment of community seedbanks in various countries around the world, and has helped connect them to national genebanks and national systems for the conservation and sustainable use of plant genetic resources.

Based on the experience of various projects, Bioversity has recently defined a step-wise method for first identifying and then accessing promising plant genetic resources for climate change adaptation. This methodology is based on a) developing new or strengthening existing partnerships among a range of stakeholders in each country; b) measuring possible impacts of climate change on target crops; c) identifying promising germplasm with potentially useful traits for climate change adaptation from local, national and international sources; and d) accessing such germplasm in compliance with local, national and international rules on access and benefit-sharing, and other applicable norms.

Key publication: Resource box for resilient seed systems, available at: <http://www.seedsresourcebox.org/>

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Under the framework of various Bioversity projects, the functioning of various community seedbanks has been analyzed, a number of community seedbanks have been reinforced and new seedbanks have been established. Community seedbanks can enhance the resilience of farmers and communities through securing improved access to and availability of diverse, locally adapted crops and varieties and through enhancing knowledge and skills in plant management including selection, storage, multiplication and dissemination of seeds. Good examples of how community seedbanks can be integrated in national plant genetic resource systems come from Ethiopia, Nepal and Uganda.

Here, various community seedbanks work in close collaboration with national agricultural research organizations. Thanks to this collaborative framework, national seedbanks provide long-term conservation services to community seedbanks and obtain new crop germplasm from them; community seedbanks get adapted new germplasm from national genebanks, old local varieties that have been lost, as well as technical advice and training in seedbanking.

Key publication: Vernooy, R., Shrestha, P., Sthapit, B. eds. (2015) Community Seed Banks: Origins, Evolution and Prospects. Routledge, London, UK. Available at: [http://agriwaterpedia.info/images/8/8d/Community\\_Seed\\_Banks.pdf](http://agriwaterpedia.info/images/8/8d/Community_Seed_Banks.pdf)

#### *6.2 (g) reviewing, and, as appropriate, adjusting breeding strategies and regulations concerning variety release and seed distribution.*

Working with national agricultural research organizations, non-governmental organizations, farmers' associations and other like-minded international centres and initiatives, Bioversity analyzes the functioning of seed systems and identifies factors that can affect seed systems' capacity to guarantee the availability and accessibility of crop diversity for farmers in the form of good quality seed and other planting material. In the last decade, Bioversity has proposed and tested various options at different stages of the seed value chain to diversify crops and varieties that are made available to farmers.

Bioversity work has paid particular attention to the role of informal, local seed systems in ensuring seed supply, particularly where formal seed systems do not have the capacity to cover all crops that are important for food and nutrition security and to reach farming communities in remote, marginal areas.

The project 'Improving seed systems for smallholders' food security' involves research organizations, non-governmental institutions and farmers groups in Bolivia, Burkina Faso, Nepal, Uganda, and Uzbekistan. The project aims to diversify both the providers of seed and other planting material, and the crops and varieties made available through formal and informal seed systems. It also seeks to integrate local seed systems in national seed sectors, through the recognition of community-based seed producers and suppliers in national seed policies, and by committing public support to this type of actors. Alternative schemes for the registration of traditional and farmer improved varieties are currently being considered in Bolivia, Nepal and Uzbekistan. More relaxed quality control schemes like the FAO Quality Declared Seed System are being studied by national authorities in Bolivia and Uganda for areas where the presence of formal seed sector is limited and for crops and varieties that are not usually produced by seed enterprises but are still demanded by small farmers. Official recognition of, and technical and financial support to communities and individual farmers which have a good reputation as seed producers and holders of crop diversity are also part of the discussions being held by local, provincial and national governmental bodies in Bolivia, Nepal and Uzbekistan.

Key publication: López Noriega, I. 2016. Improving seed systems for smallholder farmers' food security. Report of the mid-term workshop of the project. Bioversity International, Rome, Italy. Available at: <http://www.bioversityinternational.org/e-library/publications/detail/improving-seed-systems-for-smallholder-farmers-food-security-report-of-the-mid-term-workshop-of-the-project/>

and Otieno, G.; Lopez Noriega, I.; Reynolds, T.W. 2016. Smallholder access to quality and diverse seed in Uganda: Implications for food security. Bioversity International, Rome, Italy. Available at: <http://www.bioversityinternational.org/e-library/publications/detail/smallholder-access-to-quality- and-diverse-seed-in-uganda-implications-for-food-security/>

## **COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS**

1. The Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), at its Sixth Session, recognized the pivotal role of plant genetic resources for food and agriculture (PGRFA) in addressing global challenges, including food security, biodiversity loss, climate change adaptation and the fight against poverty, especially for smallholder farmers. The Governing Body endorsed the revised *Programme of Work on Sustainable Use of Plant Genetic Resources for Food and Agriculture and Supporting Initiatives* (Resolution 4/2015, Annex 1). One of the goals of the Programme of Work is to implement the Priority Activities of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture (Second GPA), regarding the sustainable use of plant genetic resources for food and agriculture. The Governing Body, at its last session, also identified the Food and Agriculture Organization of the United Nations (FAO) and its Commission on Genetic Resources for Food and Agriculture (Commission) as possible implementing partners and requested its Secretary to cooperate with all relevant entities within FAO and other institutions for the effective implementation of activities in support of the Programme of Work.

2. At its Fifteenth Regular Session in January 2015, the Commission considered FAO's work in support of the implementation of the Second GPA. The Second GPA is one of the Supporting Components (Article 14) of the Treaty. The Commission reaffirmed the need for technical support in the area of crop improvement and for plant breeding capacity and seed systems' development in support of the implementation of the Second GPA. The Commission stressed the complementarity of different conservation approaches and the need to balance them and it requested FAO to continue supporting countries in the implementation of the *Genebank Standards for Plant Genetic Resources for Food and Agriculture* and to continue its work on strengthening national seeds systems. The Commission provided a detailed report to the Governing Body's Sixth Session held in October 2015.<sup>2</sup>

3. The Commission's Intergovernmental Technical Working Group on Plant Genetic Resources for Food and Agriculture (Working Group), at its Eighth Session in June 2016, considered FAO's recent activities in support of the implementation of the Second GPA and countries' efforts to implement the Second GPA. The recommendations of the Working Group, including those related to the sustainable use of PGRFA, are contained in the report of the meeting.<sup>3</sup>

4. Both, FAO's and its Commission's activities as well as countries' efforts to implement the Second GPA are summarized below for the information of the Ad Hoc Technical Committee on Sustainable Use of Plant Genetic Resources for Food and Agriculture (ACSU) of the Treaty which will hold its Third Meeting in Vienna, Austria from 24 to 25 October 2016.

### **FAO ACTIVITIES IN SUPPORT OF THE IMPLEMENTATION OF THE SECOND GLOBAL PLAN OF ACTION FOR PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE: SUSTAINABLE USE OF PGRFA**

#### **A. Guidelines for Developing a National Strategy for Plant Genetic Resources for Food and Agriculture**

5. The Commission, at its Fourteenth Regular Session, expressed its appreciation for FAO's assistance to countries in developing national plant genetic resources strategies, best practices and tools for the implementation of the Second GPA. It further requested FAO to prepare draft guidelines for national plant genetic resources strategies for review by the Intergovernmental Technical Working Group on Plant Genetic Resources for Food and Agriculture (Working Group) and the Commission at their next sessions.

6. In response to the Commission's request, FAO developed draft *Guidelines for Developing a National Strategy for Plant Genetic Resources for Food and Agriculture*, which the Commission, upon review by the Working Group, endorsed at its last session. These guidelines shall assist countries to implement the Second

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<sup>2</sup> IT/GB-6/15/Inf.8

<sup>3</sup> CGRFA/WG-PGR-8/16/REPORT.

GPA in harmony with other relevant national and international commitments. Cognizant of each country's needs, capacities and constraints, national strategies for PGRFA should identify a national vision, goals and objectives, and the corresponding plan of action, including responsibilities, resources, and timeframes for activities relevant to the conservation and sustainable use of PGRFA. The Guidelines are currently available in English, French and Spanish.

7. Increasingly, regions develop strategies for the conservation and sustainable use of PGRFA. Examples include the Strategic action plan to strengthen conservation and use of Mesoamerican plant genetic resources in adapting agriculture to climate change (SAPM) 2014-2024. In the Near East, FAO worked with four countries (Egypt, Lebanon, Jordan and Iran) on the development of National PGRFA Strategies that identify priority activities for the conservation and sustainable utilization of PGRFA in the countries.<sup>4</sup>

8. Efforts are underway in Moldova for the establishment of a national programme for the long-term conservation and sustainable utilization of the diversity of PGRFA. The work addresses the four main areas of the Second GPA: *in situ* conservation, *ex situ* conservation, sustainable use and institution and capacity building.

9. In collaboration with the Treaty, FAO supported capacity development in 15 countries in Asia, namely Bangladesh, Bhutan, Cambodia, India, Indonesia, Lao, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam, to develop a cooperative framework to accelerate cross-border flow of PGRFA among the countries.<sup>5</sup>

## B. Voluntary Guide for National Seed Policy Formulation

10. The Commission, at its last Session, endorsed the *Voluntary Guide for National Seed Policy Formulation*<sup>6</sup> (Voluntary Guide) which is currently available in English, French and Spanish, with translations in other languages pending. Since its publication, the Voluntary Guide has received considerable attention and is being used by an increasing number of policy makers and administrators. FAO presented the Voluntary Guide at an international conference on *Seeds: the solution to current and future food challenges*, co-organized in October 2015 by the French Groupement National Interprofessionnel des Semences et Plants (GNIS) and FAO under the auspices of the Expo 2015 that was held in Milan, Italy under the theme "Feeding the Planet, Energy for Life". The Guide has since been presented to various stakeholders and expert forums, including an expert meeting, co-organized by the Third World Network, South Centre and Oxfam Novib in March 2016. In establishing its National Seed Policy, the government of Costa Rica uses the Voluntary Guidelines.

## C. Strengthening seed systems

11. In 2015 and 2016, FAO continued to provide support to the strengthening of seed systems in various countries, including through partnerships at national, regional and international levels dedicated to the provision of quality seeds and planting materials. Relevant seed sector activities have been implemented especially in developing countries through a combination of Technical Cooperation Projects (TCPs) and Trust Fund projects. Countries supported by FAO in the development or revision of seed legislation include: Azerbaijan<sup>7</sup>, Benin<sup>8</sup>, Burkina Faso, Chad<sup>9</sup>, Georgia<sup>10</sup>, Guinea<sup>11</sup>, Guinea Bissau<sup>12</sup> and Haiti<sup>13</sup>, Nicaragua, Republic of Georgia and Ecuador<sup>14</sup>.

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<sup>4</sup> TCP/SNO/3401 Optimizing the Use of Plant Genetic Resources for Food and Agriculture for Adaptation to Climate Change.

<sup>5</sup> GCP/RAS/284/JPN Enhancing Understanding and implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture in Asia.

<sup>6</sup> Available online from: <http://www.fao.org/publications/card/en/c/272c15fb-0949-479d-aba9-72d918891fc5/>

<sup>7</sup> TCP/AZE/3503 Support to Seed Sector Development in Azerbaijan.

<sup>8</sup> TCP/BEN/3402 Projet d'Appui au Développement de la Filière Semence Maïs (PADFSM).

<sup>9</sup> TCP/CHD/3403 Appui à l'élaboration d'une politique semencière au Tchad.

<sup>10</sup>. GCP/GEO/004/AUT Capacity Development of the Ministry of Agriculture of Georgia: Improved Policy Making and Effective Implementation of the Strategy for Agricultural Development (contribution to ENPARD Georgia Programme).

<sup>11</sup> TCP/GUI/3402 L'objectif global du projet est de contribuer à améliorer la sécurité alimentaire et l'état nutritionnel de la population par une augmentation durable de la production et de la productivité des cultures vivrières.

12. FAO also continued to support community-level seed delivery systems, especially through the creation of an enabling environment for the establishment of small- and medium-size seed enterprises. In Honduras, for example, small- and medium-size enterprises contributed to a significant increase in the production of maize, beans, rice and sorghum by making available to about 300 000 mainly smallholder farmers, including indigenous peoples, quality seeds and planting materials of well-adapted crop varieties.<sup>15</sup> Similar support was provided in Ecuador<sup>16</sup>. In Somalia, landraces of maize, sorghum and cowpea were purified, bulked and distributed to farmers with the support of FAO<sup>17</sup>. In Georgia, FAO helped to improve significantly the overall seed delivery system by strengthening the national capacity for seed certification and, in addition, increasing the capacity of farms to multiply early generation seeds, i.e. breeder and foundation seeds<sup>18</sup>.

13. FAO contributed, through a project for seed sector development funded by the Government of Turkey<sup>19</sup>, to the development of a Regional Seed Agreement and a related implementation strategy, aiming at facilitating seed trade in the ECO region consisting of Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, Turkey and Uzbekistan.

14. In partnership with the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD), FAO currently supports efforts to improve crop production in Mozambique by making available quality seeds and establishing Farmer Field Schools<sup>20</sup>. Through the South-South Cooperation mechanism and in collaboration with the government of Venezuela, FAO also supports the strengthening of capacities in the rice production of ten countries in Africa (Benin, Cameroon, Côte d'Ivoire, Guinea, Kenya, Mali, Nigeria, Senegal, the United Republic of Tanzania and Uganda<sup>21</sup>).

#### **D. Rehabilitation of seed systems**

15. In order to ensure that emergency seed relief interventions contribute to the overall seed sector development in the long term, FAO supports the use of better seed system security assessment methodologies in countries that are affected by, or prone to, natural disasters and conflicts. FAO carried out seed security assessments and seed relief operations in collaboration with partners in Chad, Mali and Uganda, with further activities planned for Ethiopia, Kenya, Somalia and South Sudan. In partnership with WFP, FAO provides agricultural inputs and assets to approximately 125 000 at-risk households in Nepal following the April 2015 earthquake<sup>22</sup>.

16. To mitigate the effects of economic turmoil caused by insurgency and natural catastrophes in Pakistan, FAO currently supports the restoration of cropping systems, including by improving access to quality inputs (seed and fertilizers) and the rehabilitation of fruit orchards<sup>23</sup>. In response to similar pressures,

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<sup>12</sup> TCP/GBS/3503 *Appui au développement durable d'un secteur semencier performant en Guinée Bissau*.

<sup>13</sup> UTF/HAI/033/HAI *Appui à la relance du secteur semencier*.

<sup>14</sup> TCP/ECU/3502 *Apoyo al fortalecimiento en los procesos de fomento de servicios especializados del Ministerio de Agricultura, Ganadería, Acuacultura y Pesca (MAGAP) en el ámbito de la innovación tecnológica y producción de semillas*.

<sup>15</sup> TCP/HON/3501 *Desarrollo de las Capacidades de Gestión Empresarial y Competitividad de las Redes de Empresas de Producción de Semilla*.

<sup>16</sup> TCP/ECU/3502 *Apoyo al fortalecimiento en los procesos de fomento de servicios especializados del Ministerio de Agricultura, Ganadería, Acuacultura y Pesca (MAGAP) en el ámbito de la innovación tecnológica y producción de semillas*.

<sup>17</sup> OSRO/SOM/516/EC *Improving the genetic quality of seeds in Somalia*.

<sup>18</sup> GCP /GEO/003/AUS *National programme for rehabilitation of seed production system in Georgia*.

<sup>19</sup> GCP /INT/123/MUL *Seed Sector Development in Countries of the Economic Cooperation Organization*.

<sup>20</sup> GCP /MOZ/111/EC *National Programme on Food security - (EU-MDG Initiative - Agriculture, food security, rural development and natural resource management*.

<sup>21</sup> GCP/RAF/489/VEN *Partnership for Sustainable Rice Systems Development in Sub-Saharan Africa*.

<sup>22</sup> OSRO/NEP/504/CAN *Restoring agricultural-based livelihoods of vulnerable earthquake-affected smallholder farmers in Sindhupalchowk, Nuwakot, Dhading, Gorkha, Rasuwa and Dolakha*; OSRO/NEP/501/BEL *Emergency assistance for the restoration of earth affected agricultural system in central Nepal for food and livelihood security*; TCP/NEP/3504 (E) *Emergency response to restore the rural livelihoods of earthquake affected farmers*.

<sup>23</sup> OSRO/PAK/502/JPN *Project for Assistance to the Recovery and Development of the Agricultural Economy in Federally Administered Tribal Areas*.

Madagascar received assistance with the development of a new agricultural extension system and the rehabilitation of seed systems<sup>24</sup> while the Democratic People's Republic of Korea received similar support in response to the significant decreases in harvest following the severe drought of 2014<sup>25</sup>.

17. Other emergency-related seed interventions in 2015 included support provided to: (i) farmers in the Philippines affected by civil unrest and natural disasters<sup>26</sup>; (ii) over 15,000 smallholder farmers in Ethiopia affected by drought in 2015 caused by El Niño<sup>27</sup>; (iii) vulnerable farming households affected by Hurricane Fred in Cape Verde in 2015; (iv) 2400 vulnerable Syrian households affected by snow storms and unusually low temperatures in January 2015<sup>28</sup>; (v) farmers affected by severe flooding in Malawi<sup>29</sup> and Ghana<sup>30</sup> in December 2014 and June 2015, respectively; and (vi) farmers in Yemen who received quality seed<sup>31</sup>.

18. FAO also supported Sudan<sup>32</sup><sup>33</sup> and South Sudan<sup>34</sup> through enhancing their capacities to adopt climate smart agricultural production systems. In Sudan, this included the procurement and distribution of quality seeds and planting materials.

19. FAO continued to foster and strengthen partnerships with relevant regional and international organizations with seed sector development related mandates. These include especially the Africa Seed Trade Association, International Seed Federation (ISF), International Seed Testing Association (ISTA), OECD Seed Schemes, and the Union for the Protection of New Plant Varieties (UPOV).

## E. Strengthening plant breeding

20. The Commission, at its last session, reaffirmed the need for technical support in the area of crop improvement and plant breeding capacity.<sup>35</sup> During the reporting period, FAO continued to implement several regular programme and trust fund activities to strengthen capacities for developing well-adapted crop varieties that are most suited to local agroecologies and farming systems:

With FAO's support, root and tuber crops value chains are being strengthened in Benin, Cameroon, Côte d'Ivoire, Ghana, Malawi, Rwanda, and Uganda.<sup>36</sup> The interventions included strengthening capacities for the development, handling and dissemination of disease-free planting materials for cassava, yam and potatoes.

In Bangladesh, FAO assists national partners in developing capacity for crop variety development and adaptation and defining the best framework for quality assurance, in partnership with the private sector and seed producers<sup>37</sup>.

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<sup>24</sup> GCP /MAG/081/EC *Actions Intégrées en Nutrition et Alimentation*.

<sup>25</sup> TCP/DRK/3505 (E) *Support to vulnerable farmers to mitigate the impact of drought in North and South Hwanghae provinces of the DPR Korea*.

<sup>26</sup> TCP/PHI/3504 (E) *Emergency response to restore the livelihoods of conflict affected communities in the Autonomous Region in Muslim Mindanao (ARMM) and in Region XII*.

<sup>27</sup> TCP/ETH/3504 (15/XII/ETH/232) *Emergency assistance for vulnerable smallholder households affected by El Niño-induced drought in eastern Amhara and southern Tigray Regions*.

<sup>28</sup> TCP/SYR/3502 *Emergency assistance to restore the livelihoods of vulnerable greenhouse vegetable crop producers affected by the snow storm*.

<sup>29</sup> OSRO/MLW/502/BEL *Emergency assistance for resuming smallholder crop production in flood affected districts of Malawi*.

<sup>30</sup> TCP/GHA/3506 *Restoration of productive capacities of flood affected agricultural households in Ghana*.

<sup>31</sup> TCP/YEM/3503 *Emergency livelihood support to Internally Displaced People (IDPs) and vulnerable host communities living in conflict affected areas of Al Dhale Governorate*.

<sup>32</sup> OSRO/SUD/506/ITA *Integrated Food Security and Livelihoods Project (IFSLP) in Eastern Sudan*.

<sup>33</sup> OSRO/SUD/507/CHA *Life-saving food assistance and livelihood support to IDPs and vulnerable households affected by conflict in North Darfur State*.

<sup>34</sup> TCP/SSD/3405 *Emergency livelihood support to Internally Displaced Persons (IDPs) and vulnerable host community families affected by the recent crisis*.

<sup>35</sup> CGRFA-15/15 Report, paragraph 53.

<sup>36</sup> GCP/RAF/448/EC *Strengthening linkages between small actors and buyers in the Roots and Tubers Sector in Africa*.

<sup>37</sup> UTF/BGD/044/BGD *Integrated Agricultural Productivity Project Technical Assistance and Capacity Development Component*.

In Zambia, FAO supports efforts to genetically improve rice<sup>38</sup>. The interventions include the production of enhanced breeder and foundation seeds.

FAO, together with other organizations, also promotes crop diversification in Ethiopia through integration of adaptable crops and new varieties into the existing farming systems<sup>39</sup>. The focus is on nutrition-based agriculture based on the growing of nutritionally rich crops and varieties, post-harvest management and loss reduction.

21. As contribution to enhanced nutrition, FAO also continued to build upon the success of the International Year of Quinoa by promoting the production, evaluation, management, utilization, and marketing of the crop under diverse farming systems and agroecological regions in 26 countries across Africa, the Near East and Asia.

22. In February 2016, the FAO International Symposium on “The Role of Agricultural Biotechnologies in Sustainable Food Systems and Nutrition” was held in Rome at FAO headquarters<sup>40</sup>. The symposium’s objective was to explore the application of biotechnologies for the benefit of family farmers in. Over 400 participants took part in the symposium, which highlighted successful case studies for the application of biotechnologies in developing sustainable food systems and improved nutrition. Intellectual Property Rights, funding and scientific and technical capacities were identified as important factors in the adoption of diverse agricultural biotechnologies.

23. The Joint Division of FAO and the International Atomic Energy Agency (IAEA) for Nuclear Techniques in Food and Agriculture (AGE) supported 99 countries in the implementation of 72 crop-improvement related TCPs. Additionally, through the Coordinated Research Projects mechanism of the IAEA, AGE networked with researchers from 44 different countries to collaborate on six crop improvement-themed collaborative projects. These efforts have resulted in the development of about 4241 mutant lines in 17 different crops in 32 Member States and 64 publications. 337 trainees acquired enhanced relevant skills both at AGE’s Agricultural and Biotechnology Laboratory in Seibersdorf, Austria and other advanced training facilities around the world. An updated version of the Mutant Variety Database, which is a searchable online tool for over 3 200 officially released mutant crop varieties worldwide, became available in May 2015<sup>41</sup>.

## **ASSESSMENT OF THE IMPLEMENTATION BY COUNTRIES OF THE SECOND GLOBAL PLAN OF ACTION FOR PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE 2012-2014**

24. At its Fifteenth Regular Session, the Commission endorsed a timeline both for the monitoring of the implementation of the Second GPA and for the preparation of *The Third Report on the State of the World’s Plant Genetic Resources for Food and Agriculture*.<sup>42</sup> According to the timeline adopted by the Commission, an assessment of the implementation of the Second GPA should be presented to the 8<sup>th</sup> session of Working Group. The results of the assessment presented to the Eighth Session of the Working Group were based on information received from 35 countries and 12 international organizations (including 11 CGIAR centres) for the reporting period January 2012 to June 2014. A more detailed assessment of the implementation of the Second GPA was provided to the Working Group in the document *Assessment of the implementation of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture 2012–2014*.<sup>43</sup>

25. For the assessment, higher-order composite indices (HCIs) were calculated for *In Situ* Conservation and On-Farm Management, *Ex Situ* Conservation and Sustainable Use of PGRFA and Building Sustainable Institutional and Human Capacities. The calculations were based on information provided by National Focal

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<sup>38</sup> TCP/ZAM/3501 *Strengthening Rice Seed Production and Enhancing Extension Services to Increase Rice Production in Zambia*.

<sup>39</sup> GCP /ETH/085/MUL *Increase the production and productivity of poor and vulnerable smallholder farmers and hence increase the availability of diversified livelihood through increased production in crop and livestock products for household consumption as well cash generation from market sales of these products*.

<sup>40</sup> Symposium website <http://www.fao.org/about/meetings/agribiotechs-symposium/en/>

<sup>41</sup> Available online from: <http://mvd.iaea.org/#!Home>

<sup>42</sup> CGRFA-15/15/Report, paragraph 56.

<sup>43</sup> CGRFA/WG-PGR-8/16/Inf.1.

Points from 33 countries,<sup>44</sup> who rated the level of achievement in their countries for 91 percent of the indicators on average. The purpose of HCIs is to assess progress towards the three PGRFA targets (i.e. Conservation of PGRFA – comprising *in situ* and *ex situ*; Sustainable Use of PGRFA; and Building Sustainable Institutional and Human Capacities) and to facilitate the comparison of performance across time, countries and regions. The implementation of the Second GPA as a whole contributes to the achievement of the adopted PGRFA targets, and each priority activity (PA) covers a particular dimension of, and contributes, to one of the three targets. PAs 8 to 12 contribute to Target 2, i.e. Sustainable Use of PGRFA. Progress in the implementation of each PA is assessed through a set of indicators adopted by the Commission. More information on the construction of the HCIs is contained in the document *Targets and indicators for plant genetic resources for food and agriculture*.<sup>45</sup>

26. The sustainable use of PGRFA had the second highest HCI score; the highest was Building Sustainable Institutional and Human Capacities while *Ex Situ* Conservation and *In Situ* Conservation and On-Farm Management were third and fourth, respectively. For the sustainable use of PGRFA, the activities that were reported on included the characterization and evaluation of accessions, the management and distribution of collections, pre-breeding and breeding, seed systems and promotion of the diversification of crop production and increase of crop diversity on-farm. There were variations in the ratings provided for the different PAs: supporting seed production and promoting diversification actions received the highest and lowest average ratings, respectively.

*PA8, Expanding the characterization, evaluation and further development of specific collection subsets to facilitate use.* More than 50 percent of the accessions held in national genebanks have been morphologically characterized and, impressively, almost 1 000 trait-specific subsets of collections developed. More than 175 000 accessions (and more than 350 000 samples) of about 280 different crops were distributed by national genebanks. Similar figures were reported by the international agricultural research centres for the accessions held in their genebanks.

*PA9, Supporting plant breeding, genetic enhancement and base-broadening efforts.* There were almost 500 breeding and pre-breeding programmes or projects for more than 300 crops, the majority of which were for the major crops. More than half of the germplasm used in these breeding activities was obtained from regional or international networks or the genebanks of international centres, thus demonstrating clear interdependency. About one-third of the activities aimed to address constraints relevant to the production systems of small-scale farmers or local communities. About 200 genetic enhancement and pre-breeding activities were implemented in 20 countries for almost 100 crops. Local cultivars and landraces were by a wide margin the types of materials that were most used. About 2 000 active plant breeders were working in public-sector institutions in 30 countries; their work focused mostly on fruits, cereals and vegetables. Almost 500 plant breeders were working in the private sector, with a significant majority of them working on cereals. The international centres reported 56 breeding programmes or activities on 36 crops and employed 150 plant breeders.

*PA10, Promoting diversification of crop production and broadening crop diversity for sustainable agriculture.* There were crop diversification programmes and activities in 24 countries for 145 different crops, with almost 70 new crops or wild species introduced into cultivation. More than 160 underutilized species with potentials for commercialization were identified. In addition, 25 projects or programmes related to the improvement of plant genetic diversity in the cropping systems of 12 different crops or crop groups were implemented by the international centres.

*PA11, Promoting development and commercialization of all varieties, primarily farmers' varieties/landraces and underutilized species.* Across most of the 20 countries that provided data for this PA there were 53 different national laws, policies, etc. for promoting the development and/or commercialization of farmers' varieties and/or landraces. In addition, there were more than 530 programmes or projects for more than 200 different crops. In all, 1 443 landraces of almost 200 crops, as well as 168 underutilized species with potentials for commercialization were identified. Eight of the international centres reported 19 programmes or projects promoting the development and commercialization of varieties. They also identified 633 landraces and 16 underutilized species with potentials for commercialization.

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<sup>44</sup> The number of indicators rated by two countries was not sufficient to include them in the overall analysis.

<sup>45</sup> CGRFA-15/15/4.1; cf. also Background Study Paper No. 67.

*PA12, Supporting seed production and distribution.* About 6 400 varieties were released in 29 countries. Vegetables and cereals constituted the majority of the crop groups. More than 9 000 registered seed enterprises operated in 26 countries. On average, 14.5 varieties were cultivated on 80 percent or more of the total cropping area for the five most widely spread crops of the reporting countries. Although difficult to judge without comparisons, this latter aspect could be a reliable indicator for assessing within-crop diversity and vulnerability of monocropping systems.

## THE GLOBAL FORUM ON AGRICULTURAL RESEARCH (GFAR)

The Joint Capacity Building Programme of the International Treaty, GFAR and other relevant organizations on the Implementation of Farmers' Rights started with the request of farmers' organizations, civil society organizations and relevant stakeholders of developing countries to increase their capacity and public awareness on Farmers' Rights and foster their concrete implementation at national and local levels. This work was presented at the special event on "*Farmers' Rights under the International Treaty: Past, Present and Future Actions to Strengthen their Implementation*" on 3 October 2015, prior to the Sixth Session of the Governing Body of the International Treaty. Before this, GFAR was very involved in the original establishment of the Treaty and more recently undertook a study on the implications of Farmers' Rights for the Intellectual Assets principles of the CGIAR, a study considered by the CGIAR to be very helpful in reconciling breeders' rights and Farmers' Rights in their work.

Support has been provided to Guatemala, Honduras and Malawi where capacity building materials on Farmers' Rights have been developed in an inclusive and participatory manner; seed and agricultural fairs have been supported; national meetings on Farmers' Rights have been organized and held with the participation of a wide range of stakeholders; and legal support has been provided in processes of developing or adjusting national seed policies.

Currently, the Joint Programme is supporting the translation into different Malawian local languages of the capacity building material of Farmers' Rights, to be shared with smallholder farmer communities in that country; follow-up technical advice is being provided to the Secretary of Agriculture and civil society organizations regarding drafting of the National Seed Policy for Malawi; a national meeting on Farmers' Rights is been organized in October in Honduras to launch and distribute capacity building materials on Farmers' Rights.

Our cooperation with the GEF Small Grant Programme- UNDP has been strengthened and under this cooperation, the Joint Capacity Building Programme is supporting farming communities in developing countries, to increase their awareness and capacity on Farmers' Rights. Countries to receive support through the Programme in the coming months will be Costa Rica, Ecuador and Peru. We envisage the cooperation with UNDP having great potential to increase and reach still further countries, by including a window on Farmers' Rights in projects approved under the GEF Small Grants Programme-UDP regarding in situ conservation and on-farm management of agrobiodiversity.

As the third Session of the ACSU will be a valuable space to share and exchange knowledge and information on Farmers' Rights and their implementation, a presentation of the Joint Capacity Building Programme on Farmers' Rights by GFAR will be done contributing to:

1. Providing information about the support available to Contracting Parties and farmers' organizations to increase their capacity and awareness on Farmers' Rights;
2. Highlighting the importance of promoting and establishing multi-stakeholder platforms to increase national consensus on what Farmers' Rights mean under the International Treaty
3. Sharing lessons learned from the support provided in different countries and how such support has facilitated the implementation of Farmers' Rights at national and local levels
4. Sending a clear message on the need to encourage working together and sharing information through the structured framework of the Joint Capacity Building Programme on FR."

At the last meeting of the Global Conference on Agricultural Research for Development important collective actions were agreed to achieve future development goals, in particular for family farmers and poor communities around the world.

This global event was framed under the paradigm of "leave no one behind" ensuring that every individual achieves the rights and opportunities described by the Sustainable Development Goals. In the context of agri-food research and innovation this starts with ensuring farmers across the world-many of whom are women-participate equitably in the processes of research and innovation and that they benefit from the results.

One of those collective actions is "Ensuring better rural futures" using grass-root foresight. Under this initiative farmers and local organizations will develop their capacity to elaborate their own better rural future.

## CROP TRUST'S WORK ON PRE-BREEDING

The Treaty recognizes pre-breeding as a key component of ‘Sustainable Use of PGRFA’ (Article 6). Pre-breeding is functional to making plant diversity more usable by breeders and as such constitutes an essential link between conservation and use. The Crop Trust’s work in this area revolves around the project “Adapting Agriculture to Climate Change: Collecting, Protecting, and Preparing Crop Wild Relatives”, which is funded by the government of Norway (<http://www.cwrdiversity.org/>). The use of wild relatives in pre-breeding programs is a major component of this 10-year project. At present, the project supports pre-breeding programs for 19 crops (Table 1). All pre-breeding projects have strong capacity-building elements and always involve research partners in a CGIAR Center or a university as well as national partners in institutions of developing countries. All the germplasm covered by the pre-breeding projects is developed and made available by the implementing partners in the framework of the Treaty.

**Table 1:** Current pre-breeding projects

Crop	Countries	Focus traits	Project period
Alfalfa	Australia, Chile, China, Kazakhstan	Drought tolerance	2015 - 2018
Banana	Belgium, IITA (Nigeria), partner in South-East Asia (TBD)	Drought tolerance	2015 - 2018
Barley	ICARDA (Morocco), Germany, Morocco	Drought, heat and salinity tolerance, enhanced nutritional value, disease and pest resistance	2016 - 2018
Carrot	Bangladesh, Pakistan, USA	Heat, salt and drought tolerance	2014 - 2017
Chickpea	ICARDA (Morocco), Turkey, USA	Drought tolerance	2014 - 2017
Common bean	Colombia, CIAT (Colombia, Honduras)	Heat, drought, waterlogging and root rot resistance	2016 - 2018
Cowpea	IITA, Nigeria, Burkina Faso, Niger	Drought, heat	2016 - 2018
Eggplant	Cote d'Ivoire, Spain, Sri Lanka	Drought resistance, waterlogging, cold and heat tolerance, root system development	2013 - 2016
Finger millet	ICRISAT (Kenya), Kenya	Drought tolerance, resistance to blast and striga, agronomic traits	2015 - 2018
Grasspea	ICARDA (Morocco), India	Heat tolerance, low toxicity, broomrape ( <i>Orobanche</i> ), powdery mildew and aphid resistance	2016 - 2018
Lentil	Bangladesh, Canada, ICARDA (Morocco), Nepal, Spain, Turkey	Drought tolerance, <i>Orobanche</i> and <i>Stemphyllium</i> -blight resistance	2013 - 2016
Pearl millet	ICRISAT (India), India, ICRSIAT (Niger)	Heat and terminal drought tolerance	2015 - 2018
Pigeonpea	ICRISAT (India), India	Salinity tolerance, Phytophthora blight and pod borer resistance, yield-related traits	2015 - 2018
Potato	Brazil, CIP (Peru), Peru, Uruguay	Heat and drought tolerance, late blight and bacterial wilt resistance	2013 - 2016
Rice	IRRI (The Philippines), USA	Yield-related traits under drought	2011 - 2016
Sorghum	Australia, Ethiopia, partner in West Africa (TBD)	Heat tolerance, cool soil conditions tolerance, water-use efficiency, rust, anthracnose, grain mold and downy mildew resistance	2015 - 2018
Sunflower	Canada, Uganda	Drought tolerance, early flowering, yield-related traits	2011 - 2016

Sweetpotato	CIP (Peru), USA, Mozambique	Heat resistance	2014 - 2018
Wheat (durum)	India, CIMMYT (Mexico), ICARDA (Morocco), Great Britain	Yield potential, heat tolerance, drought tolerance, disease resistance	2014 - 2018

In the following, we describe one example of such pre-breeding projects – on eggplant wild relatives.

The goal of the eggplant pre-breeding work is to focus specifically on traits related to climate change adaptation. The use of the wild relatives of eggplant in breeding has been very limited, in spite of the crop's economic importance. The project conducts one of the first major applied eggplant pre-breeding efforts. Progress was documented in a series of videos in Sri Lanka, one of the project's partner countries: <https://vimeo.com/152546490> and <https://vimeo.com/152549863>.

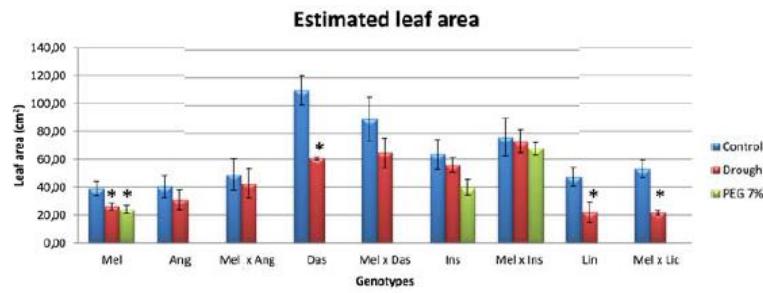


Fig. 1: The photograph on the left shows the differences between wild and cultivated eggplants. The bar graph on the right displays the performance of the wild species in comparison to the domesticated eggplant and hybrid lines under drought conditions. It appears that the leaf area in most of the wild species and hybrids is less affected by drought conditions than in domesticated types.

The pre-breeding project leader, Jaime Prohens from the Polytechnic University of Valencia, explains in an interview how essential capacity-building is for the success of the CWR project. His programme is bringing doctoral students and researchers from Sri Lanka and Côte d'Ivoire to our research institute in Valencia for training in modern pre-breeding techniques. This year, two scientists from Sri Lanka have worked with the project for three months and received training in the use of molecular techniques and in embryo rescue. Jaime also has a PhD student from Côte d'Ivoire joining his institution for six months and a researcher from the same country for three months. The goal is for the scientists who have trained with the project to transfer this knowledge to local technicians and to train new students back home. As Jaime explains, the project exemplifies a very promising approach to ensuring global food security: it utilizes material from the University collections and the in-house technical expertise to develop germplasm which will be used by local partners in developing countries to create new crop varieties adapted to local needs. At the same time, by working side by side with colleagues from these countries, Jaime transfers the knowledge to strengthen the professional base in developing countries, to create a lasting legacy. For the full interview, please see the [Project website](#).



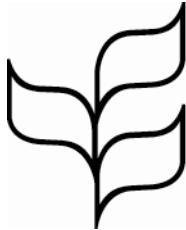
*Fig. 2: On the left, the whole project team. On the right, members of the project team during assessments of experimental plants in the screen-houses in Sri Lanka.*

## **Appendix 1**

**REPORT OF THE MEETING ON ARTICLE 10 WITH A FOCUS ON ARTICLE 10(c) AS A  
MAJOR COMPONENT OF THE PROGRAMME OF WORK ON ARTICLE 8(j) AND  
RELATED PROVISIONS OF THE CONVENTION**



CBD



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### AD HOC OPEN-ENDED INTER-SESSIONAL WORKING GROUP ON ARTICLE 8(j) AND RELATED PROVISIONS OF THE CONVENTION ON BIOLOGICAL DIVERSITY

Seventh meeting  
Montreal, 31 October – 4 November 2011

#### **REPORT OF THE MEETING ON ARTICLE 10 WITH A FOCUS ON ARTICLE 10(c) AS A MAJOR COMPONENT OF THE PROGRAMME OF WORK ON ARTICLE 8(j) AND RELATED PROVISIONS OF THE CONVENTION**

#### **INTRODUCTION**

##### **A. *Background***

1. In paragraph 10 of decision X/43, the Conference of the Parties authorized the Secretariat to convene a meeting on Article 10 (sustainable use of biological diversity) of the Convention on Biological Diversity, with a focus on Article 10(c) (customary use of biological diversity), with the participation of Parties, Governments and international organizations, and representatives of indigenous peoples and local communities, to provide advice on the content and implementation of the new major component of work for consideration at the seventh meeting of the Working Group on Article 8(j) and Related Provisions, to assist the Working Group in taking this component forward.

2. Furthermore, in accordance with paragraphs 8 and 9 of decision X/43, the international meeting is to provide advice, building on the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, on the development of further guidance on sustainable use and related incentive measures for indigenous and local communities; measures to increase the engagement of indigenous and local communities and governments at national and local level in the implementation of Article 10 and the ecosystem approach; and a strategy to integrate Article 10, with a focus on 10(c), as a cross-cutting issue into the Convention's various programmes of work and thematic areas, beginning with the programme of work on protected areas.

3. The meeting on sustainable use (Article 10) and customary use (Article 10(c)) was held in Montreal, from 31 May to 3 June 2011.

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**B. Participation**

4. In accordance with paragraph 10 of decision X/43, the Secretariat issued notification 2011-048 (ref. no. SCBD/SEL/OJ/JS/DM/75211) dated 4 March 2011 requesting nominations from interested Parties. A total of 67 nominations were received. The selection of participants was completed by the Secretariat based on the expertise of nominees, the need to ensure fair and equitable geographic representation and gender balance. Thanks to the generous support of the Governments of Japan, Canada, European Union and Norway, the Secretariat was able to provide financial assistance to 34 participants from developing and least developed countries, including small island developing States, as well as indigenous peoples and local communities and experts.

5. The meeting was attended by experts nominated by Belarus, Benin, Botswana, Canada, Colombia, Costa Rica, France, Ethiopia, India, Mexico, Norway, Philippines, Vanuatu, and Sweden. The experts nominated by Bangladesh and Syria, who had been selected and invited to the meeting, were unable to participate.

6. Experts from the following organizations also participated in the meeting: Forest Peoples Programme, Unnayan Onneshan - The Innovators, Global Garden Consulting, United Nations Educational, Scientific and Cultural Organization (UNESCO), Food and Agriculture Organization of the United Nations (FAO), United Nations University (UNU), International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Asociación ANDES, Association OKANI, Kibale Association for Rural and Environmental Development, Tebtebba, Instituto Indígena Brasileiro para Propriedade Intelectual (Inbrapi), the Southern African Development Community, Corporación Serraniagua, Andes Chinchasuyu, the Tweed Byron Local Aboriginal Land Council and Southern Cross University, Red Indígena de Turismo de México (RITA), Fundación para la Promoción del Conocimiento Indígena (FPCI), Association of Kaliña and Lokono in Marowijne, Suriname (KLIM), Métis National Council, Sri Lanka Community Development Centre and Seneca International. Experts from Inter Mountain Peoples Education and Culture in Thailand Association (IMPECT), South Central Peoples Development Association, and Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON) were selected and invited to the meeting but were unable to participate.

**ITEM 1. OPENING OF THE MEETING**

7. The meeting was opened at 9:30 a.m. on 31 May 2011 by Mr. Olivier Jalbert, Principal Officer, Secretariat of the Convention on Biological Diversity, on behalf of the Executive Secretary.

8. In his opening remarks, Mr. Jalbert recalled the major achievements of the work programme on Article 8(j) and related provisions since its inception and recalled that, at its tenth meeting, the Conference of the Parties had decided on a new major component of the revised work programme, namely the sustainable use of biological diversity with a focus on customary sustainable use (Article 10(c) of the Convention on Biological Diversity). The mandate of the meeting within the broader framework of the programme of work on Article 8(j) and Related Provisions, and as instructed by the Conference of the Parties in decision X/43 was to provide expert advice, "building on the Addis Ababa Principles and Guidelines, to develop further guidance on sustainable use and related incentive measures for indigenous and local communities and to consider measures to increase the engagement of indigenous and local communities and governments at national and local level in the implementation of Article 10 and the ecosystem approach". Therefore, participants in the meeting had an opportunity to give shape and substance to this major new task of the work programme, thereby guiding the work of the Parties in the implementation of the new Strategic Plan for Biodiversity 2011-2020, and to make recommendations on elements of a strategy to integrate Article 10(c) as a cross-cutting issue into the various work programmes of the Convention and thematic areas, beginning with the programme of work on protected areas.

## **ITEM 2. ORGANIZATIONAL MATTERS**

### **2.1           *Officers***

9. Participants elected Ms. Pernilla Malmer of Sweden and Ms. Joji Carino of the Tebtebba Foundation as Co-chairs of the meeting.

### **2.2           *Adoption of the agenda***

10. The meeting adopted the following agenda on the basis of the provisional agenda (UNEP/CBD/8J/CSU/1/1) prepared by the Executive Secretary in accordance with decision X/43 of the Conference of the Parties:

1. Opening of the meeting.
2. Organizational matters.
3. Advice on possible content and implementation of the new major component of work on Article 10 with a focus on Article 10(c):
  - (a) Guidance on sustainable use and related incentive measures for indigenous and local communities;
  - (b) Measures to increase the engagement of indigenous and local communities and Governments at national and local level in the implementation of Article 10 and the ecosystem approach;
  - (c) Strategy to integrate Article 10, with a focus on Article 10(c), as a cross-cutting issue into the Convention's various programmes of work and thematic areas, beginning with the programme of work on protected areas.
4. Refining and operationalizing the proposed indicators on traditional knowledge, as well as the development of appropriate indicators for customary sustainable use.
5. Other matters.
6. Adoption of the report.
7. Closure of the meeting.

### **2.3           *Organization of work***

11. At its opening session, the group decided to work initially in plenary to hear a number of presentations. On the second day the meeting broke into several small groups to consider the substantive items, then reconvened in plenary for the remainder of the meeting.

## **ITEM 3.       ADVICE ON POSSIBLE CONTENT AND IMPLEMENTATION OF THE NEW MAJOR COMPONENT OF WORK ON ARTICLE 10 WITH A FOCUS ON ARTICLE 10(c)**

12. In addressing this item, the meeting had before it a note by the Executive Secretary on how Article 10(c) can be further advanced and implemented as a priority (UNEP/CBD/WG8J/6/2/Add.1). The document had been circulated in advance of the meeting to participants. The initial sessions were in plenary, with expert presentations from the governments, international organizations, and indigenous peoples and local community experts on the issue of customary sustainable use. This was followed by small group work and a report back by the chairpersons and rapporteurs in plenary. Following is a summary of the main points and proposals made.

13. Presentations by experts included the following issues: (i) introduction to Article 10(c) and the Addis Ababa Principles and Guidelines; (ii) sustainability of use; (iii) customary use; (iv) Article 10(c) case-studies and lessons learned; (v) customary use practices and customary management practices and *sui generis* systems; (vi) relationship between customary use and access to lands and resources including land tenure; (vii) recognition of Indigenous and/or Community Conserved Areas; (viii) issues of special access and general access; (ix) protected areas and customary use; (x) hunting and wildlife management; (xi) commercial use of biological resources; (xii) approaches to promoting access to and management of biological resources for customary and sustainable use; (xiii) customary sustainable use and gender perspectives; (xiv) customary sustainable use, livelihoods and sustainable development (to highlight the role of customary sustainable use to human well-being and sustainable development); (xv) biodiversity for poverty eradication and development; and (xvi) possible tasks for a new component of work on sustainable use with a focus on customary use.

14. After an initial introduction of the Addis Ababa Principles and Guidelines by the Secretariat of the Convention on Biological Diversity, the representative of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) provided an overview of the ITPGRFA and new work arising with a focus on Article 6 (sustainable use) and Article 9 (farmers' rights) of the treaty. In particular, issues of the interdependence of crops and food security, role of small farmers, sustainable use in agriculture, the usefulness of regional approaches, the multilateral system and access and benefit-sharing, the contribution of the Addis Ababa Principles and Guidelines to sustainable use, and the need for synergies between mutually reinforcing international processes and specifically the Convention on Biological Diversity, the Nagoya Protocol and the ITPGRFA.

15. The meeting commended the Benefit-sharing Fund of the ITPGRFA for its positive impact on sustainable use of agrobiodiversity by funding 11 existing benefit-sharing projects and investing an additional US \$10 million into projects for sustainable and customary use of crop genetic resources. Through these projects, the Benefit-sharing Fund was having a positive worldwide impact on the sustainable use of agrobiodiversity and the adaptation of farmers' food crops to climate change impacts. The meeting called for collaboration between the Convention on Biological Diversity and the ITPGRFA in the area of sustainable use, including customary use, and farmers' rights, and underlined the need to further scale up the Benefit-sharing Fund according to its strategic plan.

16. A representative and expert from the United Nations University addressed the meeting on *Satoumi*, a marine expression of *Satoyama*. It was based on fisher community traditional practices and customs in Japan. In Japan 30 per cent of marine protected areas were designed and managed by local communities. Japan enjoyed a long history of hereditary fishing rights which regulated the sustainable use of national waters. The traditional management of local fisheries had allowed limited resources to be used over time in a sustainable way. In recent times there had been attempts to codify and incorporate customary practices into modern legislation, with various degrees of success. Some communities were sometimes reluctant to reveal customs that could be codified in such ways as to make them inflexible and unable to deal with migrating species, or local changes including climate change. Such communities may value flexibility over official recognition. A specific study concerning matriarchal hereditary fishing rights provided a fascinating insight into gender and biodiversity management. The extensiveness and completeness of customary local management of marine environment was demonstrated by the various intricate aspects of biodiversity use including timing, seasons, zones, and decision-making regarding the adoption of new technologies amongst others. Local management also involved regeneration activities and promotion of cross-sectoral approaches to sustainable use.

17. Participants responded drawing attention to the first and second principles of the Addis Ababa Principles and Guidelines and specifically the need to get legal frameworks and governance right and the balance of ensuring flexibility and local approaches. Also the need for a respectful interface between traditional knowledge and science was emphasized.

18. The indigenous expert from Ecuador provided an in-depth view of customary sustainable use and poverty alleviation rooted in the epistemologies and cosmologies of indigenous peoples. So fundamental was the concept of biodiversity to the Kichwa people that there was no word for biodiversity – the closest equivalent being “life” (kawsay) or mother earth (Pachamama). The cosmologies of indigenous peoples included various world views that considered a spiritual dimension which interacted and required balance with the physical world. Such a fundamentally different world view provided customary laws which governed the use of resources including biodiversity, which had difficulty interfacing with modern legal systems. The expert presented examples of traditional practices including diverse permaculture, demonstrated food security, sustainability and companion planting. New forms of culturally appropriate sustainable development, including revisiting traditional practices including bartering and reciprocity, cultural revitalization and relearning and promoting traditional knowledge, and customary sustainable use for poverty alleviation were also investigated.

19. The chairperson of Unnayan Onneshan, from Bangladesh, provided an insight into the desirability of local management of biological resources. Detailed advice was provided on various cultural, social and legal concepts of property rights with a focus on a set of entitlements. The expert called for a decolonizing of legal systems to incorporate diverse and traditional forms of associations with resources, beyond primitive accumulation. New sustainable development models were needed for access to resources vis-à-vis accumulation by dispossession. He argued that models of governance based on individual property rights were incompatible with customary sustainable use. The expert also noted the need for law reforms to take into account the identification of the rightful users of forest resources and to secure operational-level access rights and the promotion of collective local action and management. His presentation drew attention to the need to strengthen principles one and two of the Addis Ababa Principles and Guidelines (legislation and governance).

20. The representative of the Southern African Development Community presented the regional approach adopted by 15 countries in Africa. He spoke on goals of sustainable and customary use for medicine, health, food, shelter, energy and poverty alleviation against a reality of a growing populations and depleting resources. The SADC members were increasingly interested in the role of local communities and the integration of traditional knowledge in protected areas management.

21. Some participants noted the current opportunity posed by the revision of the National Biodiversity Strategies and Action Plans (NBSAPs) for integration of customary sustainable use.

22. The indigenous expert from Peru spoke on the importance of Article 10(c) for indigenous peoples and the Convention on Biological Diversity. He emphasized the need to progressing thinking on new sustainable economic models based on low carbon green economies. A fascinating and time-proven initiative, the Potato Park, a community-driven bio-cultural heritage territory, was used to illustrate the importance of how key species could bind indigenous peoples together and give birth to conservation, a genetic resource bank, food security, sustainable development, women’s enterprises, poverty alleviation, creative and diverse economies based on traditional knowledge and customary use, local models for adaptation to climate change, and new equitable benefit-sharing models. The Potato Park initiative was committed to exploring and promoting the protection of traditional knowledge through creative and *sui generis* intellectual property models including geographic indicators and collective trademarks, enabling law reform for recognition of customary law concerning customary use. Through such activities the Potato Park provided indigenous peoples with an opportunity for the local implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

23. Having considered the presentations thus far, some experts noted that for some communities, tensions arose where distribution of cash occurred and suggested various models for equitable sharing of benefits that centred on indigenous structures able to exercise customary laws. Some suggested that identifying community needs and funding them as priorities had enjoyed some success. The need for a multiplicity of benefits was the desirable model to promote.

24. A local community expert from Uganda and a former Equator Initiative prize winner presented the community-driven conservation effort that had led to multiple improved outcomes for the participating communities. He discussed the primate conservation project and community procedures for the distribution of benefits accruing from this and related enterprises. An interesting example of flow of benefits was provided concerning a fund for neighbours of the swamp, which provided poor farmers with compensation for wild animal damage. However, challenges remain for the project, including ongoing human-wildlife conflict partially driven by increasing populations and emergent community needs, conservation versus development needs, limited technical capacity and academic knowledge, and the need to diversify community businesses beyond tourism.

25. Another Equator Initiative prize winner from Sri Lanka provided a case-study on the revival of traditional yams and effective alternative social development models. The restoration of the traditional yams led to community empowerment with multiple benefits including increased food security, a diverse gene bank and local-level insurance against climate change.

26. An Equator Initiative prize winner from Colombia discussed the characteristics of successful community projects involving conservation and sustainable use of biodiversity. Successful projects required diverse and broad-based stakeholder engagement. Local projects needed to take into consideration culture in their methodology and maintain a goal of collective social advancement. Protected areas and protected corridors required buy-in by relevant local communities and recognition of their community conservation areas. Each project had to consider various dimensions, including nature, social, cultural and economic. He also discussed small farmers and women farmers and customary use, and noted the usefulness of geographic indicators as a possible way of protecting local products arising from traditional knowledge. He also pointed to the fact that despite the successful implementation of ecological corridors and their formal and customary protection, threats still remained, in particular from mining and megaprojects driven by interests that may override the kind of protection granted for the corridors.

27. An indigenous representative of the Red Indígena de Turismo de México (RITA) discussed indigenous tourism initiatives and customary sustainable use. RITA had 150 members who were indigenous small business operators. The representative provided concrete examples on how indigenous tourism could contribute to conservation, sustainable use and the protection and promotion of traditional knowledge. Communities engaging in tourism activities developed a broad range of skills. In particular the representative was interested in peer sharing and scaling up of successful ventures. She also expanded on the cultural landscape approach favoured by many indigenous peoples, and emphasized that customary sustainable use had to be grounded in cultural restoration. Successful combinations included conservation – sustainable use – and promotion of local livelihoods.

28. The Equator Initiative prize winners answered questions from the floor and proposed some prerequisites for successful community projects that promoted sustainable and customary use and conservation. They emphasized that successful projects were driven from the bottom up although ideas and possibilities may come from the outside and could even be introduced and supported by Governments, as long as there was community buy-in and ownership. Successful projects required support of elders and commitment from community leaders. Project development sometimes required dealing with power structures, which might need to be confronted and mitigated. Scale-up success and replication remain goals of the Equator Initiative. Most successful projects were conducted on secure community territories. Security of tenure was a prerequisite for successful ventures.

29. A plenary session on Tuesday afternoon was managed and presented by the Forest Peoples Programme (FPP) and their participating indigenous peoples and local community partners, which for this meeting included: Unnayan Onneshan, Bangladesh; Association OKANI, Cameroon; Fundación para la Promoción del Conocimiento Indígena (FPCI), Panamá; and Association of Kaliña and Lokono in Marowijne (KLIM), Suriname, all members of the FPP 10c Network. The FPP 10c Network had a decade

of case-studies and experience on customary sustainable use and related issues. Examples of customary sustainable use included hunting, fishing, farming (including shifting cultivation), and gathering non-timber forest products including for medicine, housing, fishing nets, crafts and various tools and utensils. Indigenous territories were understood as regulated commons collectively owned and managed. Spiritual beliefs and cosmological views guided interaction with nature. Customary laws continued to guide customary sustainable use and included principles such as: don't take more than you need and can carry; ensure the resource can recover; do not hunt pregnant or young animals; avoid sacred and taboo sites or species; use rituals and customs when interacting with natural resources (seeking guidance and permission); take into account internal controls – including the views of elders and traditional institutions.

30. Explaining the challenges and key issues related to customary sustainable use, the FPP 10c Network emphasized that top-down decision-making and management undermined customary sustainable use. They also emphasized the crucial link between secure land and resource rights and customary use. Access and control of territories were vital prerequisites for customary sustainable use. It was noted that protected areas established without the involvement and consent of local communities restricted access and use of traditional areas and therefore threatened customary use, and might lead to increased pressures on other areas. The many issues faced by customary sustainable use were further exacerbated by climate change. Indigenous peoples were most vulnerable to climate change because they depended on the ecosystems for their livelihoods. Government policies sometimes banned or restricted community access and use of areas that were vulnerable to climate change. Customary sustainable use also had to adapt to climate change, such as changing seasons. At the same time, customary sustainable use could provide much experience to adapt to climate change.

31. Customary sustainable use was interconnected with traditional knowledge, and thus status and trends in traditional knowledge would have direct impacts on customary sustainable use. For the enjoyment of customary sustainable use, traditional knowledge had to continue to be transmitted to younger generations, and to be practised through “learning by doing” on traditional territories; this was why access to traditional territories was crucial. Traditional language remained an essential element of both traditional knowledge and customary use, as local ecological concepts could not be captured and explained in other languages. Enforced foreign languages and education could thus be harmful to traditional knowledge and customary use.

32. Some recommendations arising from the group presentation by the FPP 10c team included: recognition and promotion of traditional institutions and customary practices and laws; recognition of rights to territories (lands and waters) and resources; free, prior and informed consent must be applied in matters affecting indigenous territories; indigenous peoples and local communities need to be fully engaged in natural resource decision-making and management; and promotion of multicultural and multilingual educational systems.

33. The FPP 10c team also presented some community-based initiatives to enhance implementation of Article 10(c) at the national and local levels. One of these was the documentation of traditional knowledge and customary practices. Documentation of knowledge and practices provided an opportunity to re-evaluate traditional knowledge and practices in the light of new developments and or cultural revitalization and restoration. Another initiative was community mapping, which had become a useful and powerful tool for indigenous peoples and local communities dealing with Governments, protected areas and land tenure issues. Other initiatives included research on climate change impacts and community-based biodiversity monitoring, including monitoring and reporting of illegal logging and/or the removal for illegal trade of endangered species.

34. The lessons learned from the case-studies led to calls for the development of participatory models for protected areas and management of integrated landscapes which coincided well with traditional Japanese concepts of *Satoumi* presented by UNU.

35. On Wednesday morning, the meeting welcomed Professor Kazuhito Takeuchi, Vice Rector of UNU and representative of the International Partnership for the *Satoyama* Initiative (IPSI). Professor Takeuchi spoke at length of the *Satoyama* Initiative and linkages to conservation, biodiversity, customary sustainable use and the provision of ecosystem services. Socio-ecological production landscapes, the target areas of IPSI around the world, continued to be at risk at a time when pressures from human populations and climate change were accelerating. The *Satoyama* Initiative provided a space to consider and create new models of landscapes which could incorporate both ecosystem services and sustainable development. A number of case-studies of socio-ecological production landscapes were presented which demonstrated the value of diverse and integrated land-use systems including the tea forest of Yunnan Province in China, and mixed plantations in Brazil. Such examples provided sustainable multiple benefits and continued to deliver ecosystem services and enhanced cultural values. The expert also discussed the concept of socio-ecological production landscapes which in recent times had tended towards monocultures (such as plantations) and had thus become unsustainable. He also discussed the unique problem faced by Japanese socio-ecological production landscapes or *Satoyama* because of a declining and aging population of rural areas. The recent tsunami and earthquake disaster which had severely affected Japan had provided an opportunity to reconsider development in the light of *Satoyama*.

36. After the presentation on *Satoyama*, the Forest Peoples Programme and community representatives continued to present lessons learned from the 10(c) case-studies and focused on advice for a new component of work with an emphasis on concrete actions.

***Advice on content of a new component of work focused on Article 10(c)  
proposed by the FPP 10c Network***

37. Some proposals presented by the FPP team included the following: policy and law reform to take into account access and rights to territories and resources for customary sustainable use; inclusion of traditional knowledge and customary sustainable use in the revision and updating of NBSAPs; policies and programmes developed with the effective participation of indigenous peoples and local communities to strengthen traditional knowledge and customary sustainable use, including the recognition of customary laws through national legal frameworks; strengthening of customary institutions; measures to recognize and respect the rights of indigenous peoples and local communities to territories and resources; review and resolution of land claims to strengthen land tenure and recognize traditional and collective tenure (secure land tenure); restitution of territories taken, including for protected areas, without free prior and informed consent of the relevant indigenous peoples and local communities; promotion of the full and effective participation of indigenous peoples and local communities in conservation and landscape management; effective participation in decision-making processes at all levels; development of mechanisms for effective free, prior and informed consent (FPIC) in relation to matters affecting indigenous territories; integration of customary sustainable use and traditional knowledge in the programme of work on protected areas, including in e-modules; promote culturally appropriate and multilingual education; remove assimilationist policies and promote self-determination and community-based development.

38. Other recommendations included: that the Working Group on Article 8(j) and Related Provisions establish guidelines (complementary to the Addis Ababa Principles and Guidelines) to promote customary sustainable use and traditional knowledge, including in protected areas; collaborative on-the-ground projects to implement Article 10(c) and the ecosystem approach; decentralized decision-making and management processes (in line with the Ecosystem Approach); implementation of 10(c) as a cross-cutting issue across other programmes of work of the Convention on Biological Diversity; examination of how in-depth reviews of specific programmes of work can be used to integrate 10(c), such as the in-depth review of the programme of work on island biodiversity to be considered at the eleventh meeting of the Conference of the Parties; creation of a mechanism for the Working Group on Article 8(j) and Related Provisions to provide advice and views on matters of mutual relevance directly to the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) on a regular basis; promotion and support

(including financially) of on-the-ground implementation of 10(c) by indigenous peoples and local communities.

39. The representative of Benin presented on the protection of sacred forests in Benin. There were 2,940 sacred forests in Benin covering 18,360 hectares that were outside of official protected areas, and that had been preserved to date because of traditional beliefs and authorities. Recently, foreign cultural contact had caused erosion of traditional beliefs and authorities and the sacred forests had suffered as a result. Today the NGO of the Benin representative, Cercle pour la sauvegarde des ressources naturelles, was working to protect 20 per cent of the forest in partnership with traditional authorities and the Government. Local communities were restoring and strengthening sacred forests through direct intervention and through planting of local species and creation of buffer zones and corridors. The sacred forests continued to contribute to ecological services and social justice for local communities.

40. The expert of Colombia presented on opportunities and challenges in implementing Article 10(c) of the Convention. He noted the multi-ethnic society of Colombia included indigenous communities that in many cases had recognition and access to lands but also a large percentage of local peasant communities that often had no access to the lands. Colombia recognized the importance of local authorities, including authority to manage lands. He emphasized that customary sustainable use could not be understood outside of the local institutions that shape local authorities. Special environmental management regimes (EMR) were used by the Government as tools to formalize and respect customary sustainable use. Colombia, through local environmental management, promoted the application of traditional knowledge. He further noted that there remained challenges, including: consolidating information systems based on a socio-economic framework that considered different scales of information; the need to strengthen local communities; the need to harmonize principles and guidelines for sustainable use and revitalize rural landscapes; and to develop mechanisms to promote collective actions for biodiversity conservation.

41. The expert from the Africa Resources Trust stressed the importance of community-based resource management. Governments in southern Africa understood the importance and effectiveness of partnerships with indigenous peoples and local communities for conservation and sustainable use of biodiversity. Community-based national park management contributed significantly to poverty alleviation throughout the region and contributed to community development. Local empowerment had also strengthened village identities. Local management had been so successful – including management of protected areas – that some communities were now facing the problem of how to manage cash generated by these activities.

42. The Executive Director of Seneca International presented on traditional knowledge and customary sustainable use and emphasized the need for Articles 8(j) and 10(c) to be read, understood and implemented together. She discussed the nexus between customary sustainable use, traditional knowledge and the need for market access. She called for actions to promote this approach at community, government and international levels. Revitalizing customary sustainable use could be an opportunity to create jobs, markets, enhance capacity and provide technical assistance.

43. Participants broke into small groups to discuss lessons learned from the presentations. Each group appointed a Chairperson and Rapporteur and was allocated 90 minutes to discuss lessons learned from the presentations and their applicability to the following three thematic areas:

- (a) Guidance on sustainable use and related incentive measures for indigenous and local communities;
- (b) Measures to increase the engagement of indigenous and local communities and Governments at national and local level in the implementation of Article 10 and the ecosystem approach;

- (c) Strategy to integrate Article 10, with a focus on Article 10(c), as a cross-cutting issue into the Convention's various programmes of work and thematic areas, beginning with the programme of work on protected areas.

44. With respect to the integration of Article 10 with a focus on Article 10(c) as a cross-cutting issue into the work programmes and thematic areas of the Convention, while recognizing that their guidance would be submitted to the seventh meeting of the Working Group on Article 8(j) and Related Provisions for its consideration, the meeting emphasized the desirability of bringing its advice to the attention of the fifteenth meeting of SBSTTA and requested the Secretariat of the Convention on Biological Diversity to take measures to do so.

45. The Chairperson and Rapporteur of each small group reported back to plenary under the three thematic areas. The recommendations emanating from the discussions are contained in annex I to the present report.

**ITEM 4. REFINING AND OPERATIONALIZING THE ADOPTED INDICATORS ON TRADITIONAL KNOWLEDGE, AS WELL AS THE DEVELOPMENT OF APPROPRIATE INDICATORS FOR CUSTOMARY SUSTAINABLE USE**

46. In paragraph 18 of decision X/43, the Parties requested the Executive Secretary to explore, through further technical workshops, the ongoing refinement of the adopted indicators for traditional knowledge as well as the development of appropriate indicators for customary sustainable use and to report on this matter to the Working Group on Article 8(j) and Related Provisions at its seventh meeting. With this in mind, on 2 June, the meeting focused on indicators. The Secretariat had made available a note by the Executive Secretary on indicators for assessing progress towards the 2010 biodiversity target – status of traditional knowledge, innovations and practices (UNEP/CBD/WG8J/6/2/Add.4/Rev.1). The document had been circulated to participants in advance of the meeting.

47. In the morning, the meeting discussed the ongoing refinement and use of the adopted indicators for traditional knowledge, also bearing in mind the implementation of Article 10, and the Strategic Plan for Biodiversity 2011-2020, and in doing so considered availability of data, methodologies and coordinating organizations. The three adopted indicators for traditional knowledge are: (a) Status and trends of linguistic diversity and numbers of speakers of indigenous languages; (b) Status and trends in land-use change and land tenure in the traditional territories of indigenous and local communities; (c) Status and trends in the practice of traditional occupations.

48. In the afternoon, the meeting considered the development of appropriate indicators for customary sustainable use and to what extent adopted indicators for traditional knowledge may be complementary. It was noted that preliminary work on customary sustainable use indicators was carried out by the FPP 10c network and the International Indigenous Forum on Biodiversity (IIFB) Working Group on Indicators, and data contained in two workshop/seminar reports (from Braziers Park 2006<sup>1</sup> and Banaue 2007<sup>2</sup>) could be used as the basis for further technical work on this matter.

49. To assist in advancing the discussion on indicators, the Secretariat of the Convention on Biological Diversity gave an update on indicators for monitoring the Strategic Plan for Biodiversity 2011-2020, Articles 8(j) and 10(c), and the following partner United Nations agencies made presentations: the United Nations Educational, Scientific and Cultural Organization (UNESCO), on status and trends of linguistic diversity and numbers of speakers of indigenous languages; and the Food and Agriculture Organization of the United Nations (FAO), on changing land use patterns. Ms. Joji Carino, coordinator of

<sup>1</sup> <http://www.cbd.int/doc/?meeting=8JCSU-01> (UNEP/CBD/8J/CSU/1/INF/1)

<sup>2</sup> <http://www.cbd.int/doc/?meeting=WG8J-05> (UNEP/CBD/WG8J/5/INF/2)

the IIFB working group on indicators reported on traditional occupations and recent collaborations with the International Labour Organization (ILO), and about related initiatives to monitor indigenous peoples' human rights, traditional knowledge and well-being, focusing on community-level monitoring through such tools as community mapping, VITEK (Vitality Index of Traditional Environmental Knowledge) and case studies on customary sustainable use.

50. After an in-depth discussion, the following possible steps forward were proposed by the experts working on indicators: consider local-global linkages for indicators work on traditional knowledge and customary sustainable use; identify institutional support and resources to implement continuing technical processes on indicators; hold a technical workshop on mapping land cover, land use and land tenure security indicator by considering overlays of data (global, regional, national and local); carry out further technical work on customary sustainable use indicators, with the aim of identifying a limited number of indicators to be proposed for development and adoption; strengthen gender dimension of indicators work; carry out workshops to consider availability of data, methodologies, and coordinating organizations to further refine the proposed indicators; strengthen the indicators work of indigenous peoples and local communities and its links to the community-based monitoring, reporting and verification tool (MRV) for reducing emissions from deforestation and forest degradation (REDD) and to the ongoing work for the inclusion of governance, social impact assessments, and benefit-sharing in evaluation processes concerning the effective management of protected areas.

51. The recommendations of the meeting on this agenda item are contained in annex II to the present report.

#### **ITEM 5. OTHER MATTERS**

52. No other matters were raised.

#### **ITEM 6. ADOPTION OF THE REPORT**

53. The present report together with its two annexes was adopted at the final session of the meeting, on 3 June 2011.

#### **ITEM 7. CLOSURE OF THE MEETING**

54. Following the customary exchange of courtesies, the meeting was closed at 6 p.m. on Friday, 3 June 2011.

*Annex I***ADVICE ON THE CONTENT AND IMPLEMENTATION OF THE NEW MAJOR COMPONENT OF WORK ON ARTICLE 10 WITH A FOCUS ON ARTICLE 10(c)**

1. Experts noted that the following considerations are of special relevance and constituted a point of departure for the recommendations following:

(a) Biodiversity, customary sustainable use and traditional knowledge are intrinsically linked. Indigenous peoples and local communities, through customary sustainable use, constantly shape and reshape social and ecological systems, landscapes, seascapes, plants and animal populations, genetic resources and related management practices, thereby adapting to changing conditions such as climate change, and contributing to maintaining biodiversity and ecosystem services, and strengthening of the resilience of the social - ecological systems. Thereby indigenous peoples and local communities and holders of traditional knowledge related to customary sustainable use also contribute to the generation of new knowledge for the benefit not only of indigenous peoples and local communities but of human well-being at large;

(b) Recognize that many indigenous peoples and local communities depend directly on biodiversity and its customary sustainable use and management for local livelihoods, resilience and cultures;

(c) Cultural and spiritual values and practices play an important role in maintaining sustainable use and transmitting its importance to the next generation;

(d) It is of primary importance for successful outcomes that the development and implementation of policies and programmes for customary sustainable use are made with the full and effective participation of indigenous peoples and local communities, with a focus on women and their crucial contribution to customary sustainable use;

(e) Take fully into account the 2011-2020 Aichi Biodiversity Targets 14 (ecosystem services) and 18 (traditional knowledge and customary sustainable use), the Nagoya Protocol, and the programme of work for Article 8(j) and related provisions;

(f) Respect for the territoriality of indigenous peoples and local communities includes cultural, social, economic and ecological elements associated with the traditional management systems of indigenous lands, waters and territories. Effective access, control and management by indigenous peoples and local communities of local territories are an essential requirement for customary sustainable use;

(g) Bio-cultural territories embody traditional indigenous land and marine tenure, land and marine use, ritual use, production and exchange systems, political organization and goals and cultural identity. Bio-cultural heritage expresses the indivisibility of indigenous peoples and local communities with their territories, biodiversity (genetic to landscape) and culture and includes traditional resource rights. Indigenous peoples and local communities are ecosystem-based, making indigenous peoples and local communities well placed to implement the ecosystem approach and to efficiently and economically manage ecosystems;

(h) Full consideration of social and cultural dimensions is vital to the ecosystem approach. Therefore traditional knowledge and customary sustainable use must be central to the implementation of the ecosystem approach;

(i) Full implementation of the ecosystem approach, in particular principles 1 and 2,<sup>3</sup> provides an important tool to strengthen the communities' capacity to fully practice customary sustainable use;

(j) Customary sustainable use is one dimension in the exercise of self-determination, and this right must be respected, ensuring the free, prior and informed consent of indigenous peoples and local communities consistent with United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP);

(k) Customary sustainable use not only provides for livelihoods of people and conservation of biodiversity but is also useful in building resilience for climate change adaptation and as a source for learning related to socio-ecological systems and possible innovations for productive landscapes and continued human well-being;

(l) Measures should be taken to address unsustainable use and revitalize and restore degraded landscapes (including seascapes and waters).

2. The advice of the meeting for consideration at the seventh meeting of the Working Group on Article 8(j) and Related Provisions is as follows:

#### **A. GUIDANCE ON SUSTAINABLE USE AND RELATED INCENTIVE MEASURES FOR INDIGENOUS AND LOCAL COMMUNITIES**

##### **A.1 Customary sustainable use and diverse local economies**

(a) Promote and encourage customary sustainable use of biodiversity for poverty alleviation and in the achievement of the Millennium Development Goals;

(b) Encourage, promote and develop innovative sustainable economic models and diverse local economies based upon sustainable use of biological resources and collective action;

(c) Strengthen and revitalize indigenous peoples and local communities to exercise their human rights including customary rights;

(d) Promote and encourage community-based resource management;

(e) Parties should explicitly consider customary sustainable use in National Biodiversity Strategies and Action Plans (NBSAPs), as a strategic way to maintain socio-ecological values and to achieve human well-being.

##### **A.2 Legislation and land and resource rights**

3. With the full and effective participation and free, prior and informed consent of indigenous peoples and local communities:

(a) Enact national and sub-national legislation to respect, recognize and promote customary sustainable use and traditional knowledge, consistent with indigenous peoples and local communities' customary laws, and procedures;

(b) Develop international, national and sub-national instruments and policies that support traditional institutions and the development of community bio-cultural protocols consistent with customary laws;

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<sup>3</sup>(see <http://www.cbd.int/ecosystem/principles.shtml>)

(c) Review national and sub-national laws and policies, with a view towards legal recognition of collective ownership and customary resources rights;

(d) Reconcile land use options and develop equitable models of landscape management where coexistence of indigenous peoples and local communities and others sectors of society is a reality;

(e) Ensure that free, prior and informed consent (FPIC) is respected and fully applied in all decisions, policies, actions and measures that may affect indigenous peoples' lands and territories, in accordance with UNDRIP and related international instruments.

### A.3 Targeted support and funding

4. Support and funds are needed for:

(a) Community redevelopment and the development of innovative economic models, with a focus on customary sustainable use, the promotion of traditional knowledge and cultural restoration and collective actions;

(b) Appropriate scale of projects and ability to scale up successful initiatives;

(c) Capacity-building initiatives and cross-cultural visits between successful projects and start-up projects;

(d) Promotion and strengthening of community-based initiatives by indigenous peoples and local communities and in particular women to implement Article 10(c) and to enhance customary sustainable use;

(e) Indigenous peoples in both developing and developed countries;

(f) Support for marketing of products from relevant community conservation projects including community based and managed tourism;

(g) Identification of economic models and market access strategies that are supportive of products and services from customary sustainable use at local, regional, national, and international levels;

(h) Exploring, developing and implementing provisions for economic incentives for sustainable livelihoods based on customary sustainable use and traditional knowledge;

(i) Encouraging and strengthening customary sustainable use through the repatriation and recovery of traditional knowledge and associated cultural property as per task 15 of the 8(j) programme of work and the repatriation of other indigenous bio-cultural heritage;

(j) Collaborate with the International Partnership for the *Satoyama* Initiative (IPSI) and the FAO's Globally Important Agricultural Heritage Systems (GIAHS) initiative and similar programmes, to revitalize local territories and economies based on traditional knowledge and customary sustainable use.

### A.4 Opportunities and knowledge gaps for further exploration

(a) Encourage the development of community-based knowledge systems on customary sustainable use and related issues to promote cultural restoration;

(b) Explore the nexus between customary use and sustainable use to develop economic opportunities for indigenous peoples and local communities, such as geographic branding and other forms of creative protection of intellectual property rights (IPR) to promote unique products;

(c) Expand on the methods used to put value on biodiversity and ecosystem services so as to incorporate indigenous cultural and spiritual values with their free, prior and informed consent.

**B. MEASURES TO INCREASE THE ENGAGEMENT OF INDIGENOUS AND LOCAL COMMUNITIES AND GOVERNMENTS AT NATIONAL AND LOCAL LEVEL IMPLEMENTATION OF ARTICLE 10 AND THE ECOSYSTEM APPROACH**

**B.1 Plan of Action and toolbox**

(a) Develop a Plan of Action, including gap analysis and toolbox, in collaboration with relevant agencies and in particular the FAO instruments and with the effective participation of indigenous peoples and local communities, for the promotion of customary sustainable use. The toolbox could include: regional approaches and sub-regional, concrete examples of success; educational curricula; non-monetary benefit-sharing (technology transfer, capacity-building, value added); support/stimulation of local economies; customary sustainable use-specific guidelines complementary to the Addis Ababa Principles and Guidelines; rights of indigenous peoples and local communities (including fishers, farmers and other social sectors); relevant instruments of the Convention on Biological Diversity; main messages including how customary sustainable use can benefit people and ecosystems; transparency and financial accountability; explanation of customary sustainable use rights and obligations; and concrete instruments and mechanisms to include in national laws tools about involving indigenous peoples and local communities in the management and conservation of biological resources. The development of the toolbox should take advantage of the toolbox to be developed for sustainable use and farmers' rights under the decision of the Fourth Regular Session of the Governing Body of the ITPGRFA;

(b) Ensure that information on Article 10 and customary sustainable use and the ecosystem approach is made available in appropriate languages and disseminated including through associated capacity-building workshops;

(c) Support the institutional and management capacity-building of communities and institutions, including networking of communities according to the needs and priorities identified by indigenous peoples and local communities, specifically regarding the capacity of women;

(d) Create and support and implement strategic, dynamic, specific, user-driven and participatory community management and development plans based on customary sustainable use, traditional knowledge and bio-cultural protocols;

(e) Ensure the full and effective participation of indigenous peoples and local communities, in particular women, in public policy making and biodiversity management and decision-making processes at all levels;

(f) Invite non-Parties to consider guidelines formulated under the Convention on Biological Diversity, concerning customary sustainable use, traditional knowledge and practices in accordance with free, prior and informed consent.

**B.2 Education**

(a) Mainstreaming biodiversity education, including issues of customary sustainable use, traditional knowledge and indigenous languages in the formal and informal education systems with the full and effective participation of indigenous peoples and local communities;

(b) Promote intergenerational transmission of traditional knowledge and indigenous languages relevant for customary sustainable use by indigenous peoples and local communities through

formal and informal education and cultural appropriate mechanisms, including strengthening oral traditions;

(c) Promote education and public awareness related to the importance of traditional knowledge and customary sustainable use (formal and non-formal);

(d) Recognize and support indigenous peoples and local communities to strengthen traditional institutions, including traditional forms of education in traditional languages;

(e) Promotion of collaboration amongst nations, countries and communities on customary sustainable use, traditional knowledge and practices and indigenous languages, including fostering of South-South cooperation.

### **B.3 Monitoring and evaluation**

Put in place a monitoring system to analyse the relationship between customary sustainable use and ecosystem services and human well-being and sustainable development, with the full and effective participation of indigenous peoples and local communities.

### **C. A STRATEGY TO INTEGRATE ARTICLE 10, WITH A FOCUS ON ARTICLE 10(c), AS A CROSS-CUTTING ISSUE INTO THE CONVENTION'S VARIOUS PROGRAMMES OF WORK AND THEMATIC AREAS, BEGINNING WITH THE PROGRAMME OF WORK ON PROTECTED AREAS**

(a) Identify opportunities to implement the Plan of Action for the promotion of customary sustainable use, including gap analysis and toolbox, in all of the Convention's various programmes of work and thematic areas;

(b) Promote and ensure the full and effective participation of indigenous peoples and local communities and civil society organizations in revising and updating of the NBSAPs in developing national targets and indicators in line with the strategic plan and in producing the national reports to the Convention on Biological Diversity so that customary sustainable use can be integrated into all of these processes;

(c) Promote and support the associations, networking and partnerships of the organizations of indigenous peoples and local communities for implementation and enhancement of the plan of action;

(d) Generation of information management mechanisms to facilitate the documentation of traditional knowledge and practices for customary sustainable use, with the effective participation and prior informed consent of indigenous peoples and local communities, that can be easily accessed by the various programs of the Convention and national governments, and address funding requirements;

(e) Promote understanding and broad public awareness that our most biodiverse systems are formed in interaction with humans, and that traditional knowledge and customary sustainable use contribute to and uphold biodiversity, landscapes and seascapes including in protected areas;

(f) Build common agendas across Multilateral Environmental Agreements related to the importance of preservation, protection and promotion of traditional knowledge, innovations and practices and promotion of customary sustainable use for sustainable development;

(g) Taking into consideration the three indicators adopted under the Convention on Biological Diversity for status and trends in traditional knowledge, explore and develop indicators for

customary sustainable use and incorporate indicators into national and sub-national programmes and policies;

(h) Recognize the importance of integrating traditional knowledge and customary sustainable use in the work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES);

(i) Create a mechanism for the Working Group on Article 8(j) and Related Provisions to provide advice and views on matters of mutual relevance directly to SBSTTA on a regular basis;

(j) Explore and promote on-the-ground implementation of 10(c) by indigenous peoples and local communities;

(k) Develop further guidelines on protected areas legislation, to ensure that the establishment of protected areas takes place with the full and effective participation of indigenous peoples and local communities and their free, prior and informed consent;

(l) Promote innovative protected areas governance and management types, including Indigenous Community Conserved Areas (ICCAs), encouraging the application of traditional knowledge and customary sustainable use in protected areas;

(m) Ensure that the national multi-stakeholder committees for the implementation of the programme of work on protected areas (PAs) are established and include representatives of indigenous peoples and local communities and civil society organizations and that they are informed about the need to integrate customary sustainable use in the implementation of the programme of work on Pas;

(n) Include the integration of customary sustainable use into the programme of work on PAs, through customary sustainable use specific guidance in the web-based e-modules of the programme of work;

(o) To develop concrete agreements between indigenous peoples and local communities and PAs managers concerning the integration of customary sustainable use in PAs management plans.

*Annex II***INDICATORS**

1. The advice of the meeting for consideration at the seventh meeting of the Working Group on Article 8(j) and Related Provisions is as follows:

- (a) Welcoming the work carried out under the auspices of the Ad Hoc Open-Ended Working Group on Article 8(j) and Related Provisions, and including the regional and international technical workshops organized by the Working Group on Indicators of the International Indigenous Forum on Biodiversity, to identify a limited number of meaningful and practical indicators on the status of traditional knowledge, innovations and practices and in other focal areas, to assess progress towards achieving the revised Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets;
- (b) Building on previous indicator work and the outcomes regarding both traditional knowledge and customary sustainable use from the Banaue expert seminar (2007)<sup>4</sup> and the thematic workshop on possible indicators for customary sustainable use<sup>5</sup>;
- (c) Taking into account the possible dual application and complementarity of indicators adopted for traditional knowledge as also being relevant for customary sustainable use;
- (d) Recommends that international technical workshops and regional workshops, according to the seven geo-cultural regions recognized by the United Nations Permanent Forum on Indigenous Issues, be carried out on indicators for customary sustainable use, including consideration of the availability of data, culturally and linguistically appropriate methodologies, and coordinating organizations, with the aim of identifying a limited number of indicators to be proposed for development and adoption for consideration of the eighth meeting of the Working Group on Article 8(j) and Related Provisions;
- (e) Also recommends a technical workshop on mapping land cover, land use and land tenure security indicators by considering overlays of data (global, regional, national and local);
- (f) Requests Parties to consider the pilot testing of indicators in collaboration with indigenous peoples and local communities and to report the results to a future meeting of the Working Group on Article 8(j) and Related Provisions;
- (g) Invites UNESCO to collaborate with the Secretariat of the Convention on Biological Diversity to further the compilation and analysis of data on linguistic diversity and the status and trends of speakers of indigenous languages and to provide information on this indicator for the regular consideration of the Working Group on Article 8(j) and Related Provisions on a biennial basis;
- (h) Invites the International Labour Organization to collaborate with the Secretariat of the Convention on Biological Diversity in association with indigenous peoples and local communities and relevant organizations to develop, pilot and monitor data concerning the practice of traditional occupations and to provide information on this indicator for the regular consideration of the Working Group on Article 8(j) and Related Provisions on a biennial basis;

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<sup>4</sup> <http://www.cbd.int/doc/?meeting=WG8J-05> (UNEP/CBD/WG8J/5/INF/2)

<sup>5</sup> <http://www.cbd.int/doc/?meeting=8JCSU-01> (UNEP/CBD/8J/CSU/1/INF/1)

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(i)

(j) Further invites the relevant agencies, including the Food and Agriculture Organization of the United Nations and FAO's Globally Important Agricultural Heritage Systems (GIAHS), the International Fund for Agricultural Development and the International Land Coalition, to collaborate with the SCBD, in association with indigenous peoples and local communities and relevant organizations, to develop, pilot and collect information to effectively monitor the indicator "Status and trends in land-use change and land tenure in the traditional territories of indigenous peoples and local communities" for the consideration of the Working Group on Article 8(j) and Related Provisions at its seventh meeting;

(k) Requests the Executive Secretary, in collaboration with Parties, Governments, international agencies, the Working Group on Indicators of the International Indigenous Forum on Biodiversity and interested parties, including the 2010 Biodiversity Indicators Partnership, to pursue the ongoing refinement and use of the adopted indicators, also bearing in mind the implementation of Article 10(c) and the Strategic Plan for Biodiversity 2011-2020, including through further technical workshops, and to report to the Working Group on Article 8(j) and Related Provisions at its eighth meeting to take these matters forward.

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