

Biodiversity in Rice Paddies



Rich and diverse biota of rice paddy ecosystem, comparable to tropical rainforest or coral reefs

(a) Habitats of Flora and Fauna of more than 5,600 species

No one ever knew how many of which species are living in rice paddy ecosystem. Recently, people of different fields cooperated to survey lives there in Japan, and listed the result. The result confirms that the rice paddy ecosystem is consisted of as many as 5,668 species of living organisms (Table 1) (Kiritani, K. ed., 2010). This figure suggests that rice paddies support a rich biota comparable to rainforest or coral reef if they are managed properly.

Rice paddies are connected with various habitats such as ditches, reservoirs, water ways etc. These components form a complex ecosystem known as *Satoyama* landscape in Japan and provide habitats for various living organisms.

(b) Maintained by complex link of various lives

There are various lives in rice paddies. Some are damaging crops, and are called "insect pests". Some, like spiders and frogs, eat these insect pests and are called "natural enemy". In rice paddies with a lot of natural enemy, massive outbreak of insect pests are controlled without chemicals. It is absolutely necessary that there are sufficient number of non-target or neutral insects, "*Tada-no-mushi*", other than pest or natural enemy as food for natural enemies.

(c) Adoption of Rice Paddy Resolution by Ramsar Convention

(Resolution X.31 Enhancing biodiversity of rice paddies as wetland system)

Ramsar COP10 (Changwon, 2008) adopted a resolution on rice paddies that was proposed by governments of Korea and Japan with an initiative of NGOs in both countries. This resolution provided international recognition that rice paddies have extensive wetland functions supporting rich biodiversity, aside from the function as agricultural land.

Table 1 Fauna and Flora in Rice Paddies in Japan (KIRITANI, Keizi ed., 2010)

I	Insecta	1,726 species
II	Arachnidae & Acari	141 species
III	Amphibians & Reptiles	61 species
IV	Fishes	143 species
V	Molluscs	73 species
VI	Crustaceans & Rotifers	317 species
VII	Nematoda & Annelida	91 species
VIII	Birds	189 species
IX	Mammals	50 species
X	Protista & Cyanobacteria	597 species
XI	Plants	2,075 species
XII	Virus, Bacteria & Fungi	205 species
	TOTAL	5,668 species



Importance of Rice Paddy Ecosystem

(a) Sustainable agricultural wetland with a history of more than thousands of years

Rice paddy agriculture originates at the latest up to 3rd to 5th centuries BC.

It has been continuing for more than thousands of years. Several thousands of varieties of rice are said to have been grown.

(b) Sustainable agricultural wetland included in the global water cycle

Rice is a plant of wetland, most adapted to a climate of high temperature and heavy precipitation representing Asia Monsoon. Rainfall on mountains and plains, soaking rice paddies and flowing in rivers, goes up in the air as water vapour, and moistures the earth again as it rains. Rice paddy ecosystem, which has been integrated into the global water cycle in a clever manner, not only produces rice, but also supports various lives around wetlands. That also enables sustainable rice paddy agriculture supporting biological diversity.

(c) Complex ecosystem supporting biodiversity

In Asia, where each farm household cultivates only a small area, we often observe a mosaic landscape of rice paddies, reservoirs, upland crop fields, orchards, coppices etc packed in a small area. Such a landscape, *Satoyama*, with a variety of habitat centring to rice paddy is an integrated system that affords one of the richest insect faunas in the world.

(d) Playing a role of back marsh or buffer zone to natural wetlands

People used to cultivate floodplains as rice paddies. Consequently, paddies can function as substitutes to lost wetlands for lives that have been living in natural wetlands. Rice paddies have double functions as agricultural lands and wetlands. They also play a role of buffer zone to natural wetlands. It is thus necessary to maintain biodiversity in rice paddies for maintaining natural wetlands in the vicinity.

(e) Harmonising biodiversity and multiple productivity

Rice paddy supports various species of animals and plants like fish, amphibians, molluscs, arthropods and waterplants. These organisms, in turn, can also be considered as products of rice paddies. Richness of biodiversity in rice paddy means richness of multi-fold productivity from rice paddy not limited to rice production.

Rice Paddies Japan

Contact : IWABUCHI Shigeki : npotambel@yahoo.co.jp

Rice Paddy Working Group, Japan Civil Network for the Convention on Biological Diversity

Contact : KURECHI Masayuki : son_goose@sky.plala.or.jp KASHIWAGI Minoru : minoru_kashinility.com

photo&design

CFURUYA Aiko (oyzanet)

This leaflet was financially supported by 2010 Kofu Green Nature Conservation Fund.

Aichi Biodiversity Targets

Strategic Goal A

Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society



Target 1

By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.



Target 2

By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.



Target 3

By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.



Target 4

By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use



Target 5

By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.



Target 6

By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.



Target 7

By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.



Target 8

By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.



Target 9

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.



Target 10

By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic
Goal C

To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity



Target 11

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.



Target 12

By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.



Target 13

By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic
Goal D

Enhance the benefits to all from biodiversity and ecosystem services



Target 14

By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.



Target 15

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.



Target 16

By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic
Goal E

Enhance implementation through participatory planning, knowledge management and capacity building



Target 17

By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.



Target 18

By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.



Target 19

By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.



Target 20

By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

10th Meeting of the Conference of the Parties to the
Convention on Wetlands (Ramsar, Iran, 1971)
“Healthy wetlands, healthy people”
Changwon, Republic of Korea,
28 October-4 November 2008

Resolution X.31
Enhancing biodiversity in rice paddies as wetland systems

1. RECOGNIZING that rice is grown in at least 114 countries worldwide and, as the staple diet for over half the world’s population, has contributed to about 20% of the total calorie supply in the world;
2. AWARE of recent concern over global food supplies and costs and the need for increasing food production, and ALSO AWARE that Resolution X.23 on Wetlands and human health and well-being highlights the interdependencies between human health, food security, poverty reduction and sustainable wetland management and calls for Contracting Parties to “strengthen collaboration and seek new partnerships between the sectors concerned with wetland conservation, water, health, food security and poverty reduction”;
3. RECOGNIZING that rice paddies (flooded and irrigated fields in which rice is grown), a typical agricultural landscape for a significant proportion of world rice cultivation, have provided large areas of open water for centuries in regions with a variety of rice-growing cultures, and, in addition to producing rice, also provide other animal and/or plant food sources and medicinal plants, thus acting as wetland systems and helping to sustain livelihoods and human well-being in these regions;
4. NOTING that rice paddies in many parts of the world support important wetland biodiversity, such as reptiles, amphibians, fish, crustaceans, insects and molluscs, and play a significant role in waterbird flyways and the conservation of waterbird populations;
5. FURTHER RECOGNIZING that aquatic biodiversity associated with rice paddies can make an important contribution to the nutrition, health and well-being of rural populations;
6. RECOGNIZING ALSO that in some particular regions, it is important that irrigated rice paddies remain connected to surrounding natural/semi-natural habitat, in particular to wetlands, for the sake of biodiversity;
7. RECALLING that “rice fields” are included in the Ramsar Classification System for Wetland Type as a human-made wetland (“Type 3 Irrigated land; includes irrigation channels and rice fields”) and thus, where appropriate, may be designated as, or included in, Wetlands of International Importance (Ramsar sites), and that at least 100 designated Ramsar sites around the world include rice field habitats that play important ecological roles and support a range of biodiversity, including supporting internationally important populations of breeding and non-breeding resident and migratory waterbirds;
8. NOTING that some sites associated with rice paddies are or could be included in the Globally Important Agricultural Heritage Systems (GIAHS) Programme, which was initiated by the Food and Agriculture Organization of the United Nations (FAO) and promotes the dynamic conservation of areas important for indigenous techniques and cultural and biodiversity values, and RECOGNIZING that such sites could provide examples of wetland wise use;
9. CONCERNED about current and potential threats to the role of rice paddies as sustainable wetland systems, as well as about the potential and current impacts to the surrounding environment, caused by factors such as inappropriate agricultural practices relating to water management and change of natural flow, as well as introduction of new taxa, including invasive alien species, use of high levels of harmful agricultural chemicals, and the impact of inappropriate conversion of rice paddies to other land uses;
10. NOTING that some water management approaches, such as flooding of rice paddies when they are not in use for rice production, have been adopted in order to provide suitable habitat for some fauna, including migratory waterbirds, and to control weeds and pest insects;
11. ALSO CONCERNED that inappropriate conversion of wetland to paddy field may have potential negative impacts on local biodiversity and related ecosystem services, and AFFIRMING that this Resolution is not to be used to justify conversion of existing natural wetlands into human-made wetlands, nor to justify inappropriate conversion of land to human-made wetlands;
12. ALSO AFFIRMING that the focus of this Resolution is specifically on the maintenance and enhancement of the ecological and cultural role and value of appropriate rice paddies as wetland systems, consistent and in harmony with the Convention, internationally agreed development goals, and other relevant international obligations;

13. RECALLING that Resolution VIII.34 (2002) highlighted, inter alia, the importance of ensuring that agricultural practices are compatible with wetland conservation objectives and that sustainable agriculture supports some important wetland ecosystems, and AWARE of the work currently being undertaken in response to Resolution VIII.34 by the Scientific and Technical Review Panel (STRP) and the Guidance on Agriculture-Wetlands Interactions (GAWI) initiative with the FAO, Wageningen University and Research Centre, the International Water Management Institute (IWMI), Wetland Action, and Wetlands International, including the preparation of a framework for guidance related to interactions between wetlands and agriculture; and
14. NOTING that information and products related to rice paddy farming are available through the work and publications of the Organization for Economic Cooperation and Development (OECD) on agriculture and biodiversity, including agri-biodiversity indicators; that information on wetland, water and rice farming is available in the Comprehensive Assessment of Water Management in Agriculture (CA); and that the analyses of distribution and representativeness of Ramsar wetland types, currently being undertaken by the IWMI for the STRP, include, inter alia, rice paddies as human-made wetlands;

THE CONFERENCE OF THE CONTRACTING PARTIES

15. ENCOURAGES Contracting Parties to promote further research on flora, fauna and ecological functions in rice paddies and on the cultures that have evolved within ricefarming communities that have maintained the ecological value of rice paddies as wetland systems, in order to identify sustainable rice paddy farming practices that reinforce wetland conservation objectives and provide ecosystem services such as groundwater recharge, climate moderation, flood and erosion control, landslide prevention, provision of plant and or animal food resources and medicinal plants, and the conservation of biodiversity;
16. INVITES Contracting Parties to consider offering recognition and/or protection to such sites through, for example, their designation as Wetlands of International Importance and through mechanisms such as the FAO Globally Important Agricultural Heritage Systems Programme, and FURTHER INVITES Contracting Parties to disseminate and exchange information on these practices and sites amongst governments, farmers and conservation agencies, in order to support improvement of sustainable rice farming practices and water management;
17. ENCOURAGES Contracting Parties to:
- i) identify challenges and opportunities associated with managing rice paddies as wetland systems in the context of the wise use of wetlands, also paying attention to the concept of connectivity between rice paddies, natural wetlands and river basins, as well as to the promotion of sustainable agricultural practices, and furthermore to encourage conservation authorities to collaborate with agriculture authorities and those agencies responsible for rice production and disease prevention to identify and actively promote planning, farming practices, and water management in rice paddies that serve to enhance the natural biodiversity, ecosystem services, and sustainability of rice paddies, while also contributing to improved nutrition, health and well-being of farming household members and surrounding community members and to the conservation of waterbird populations;
 - ii) ensure that such planning, farming practices, and water management are implemented wherever applicable, making appropriate use of the Ramsar guidance on wetlands and river basin management adopted in COP10 Resolution X.19 so as to ensure that river basin processes and possible upstream and downstream effects of rice paddy farming are considered, while being conscious of the need for food production and the interests of local communities;
 - iii) ensure that planning, farming practices, and water management associated with rice paddies do not lead to loss of existing natural biodiversity and ecosystem services through inappropriate conversion of natural wetlands or other habitats to human-made wetlands; and
 - iv) consistent with the measures identified above, seek appropriate environmentally sustainable ways of minimising risks to human health associated with waterborne diseases, disease vectors (including Highly Pathogenic Avian Influenza), and excessive and inappropriate use of agricultural chemicals in rice paddies; and
18. REQUESTS the Scientific and Technical Review Panel, working with other interested organizations, to:
- i) prepare a technical report on the role of rice paddy in supporting the conservation of wetland biodiversity and the delivery of wetland ecosystem services, taking into account differences in the ways in which rice fields are managed, considering also the work of the GAWI partnership; and
 - ii) review, disseminate, and exchange available guidance and information related to rice paddy planning, management practices and training on sustainable rice farming that protect or enhance wetland biodiversity and ecosystem services while also supporting essential food production, in collaboration especially with FAO, IWMI, the International Rice Research Institute (IRRI), the Africa Rice Centre (WARDA), the GAWI partnership, and others.

CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY

Tenth meeting

Nagoya, Japan, 18-29 October 2010

Agenda item 6.1

DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION
ON BIOLOGICAL DIVERSITY AT ITS TENTH MEETING

X/34. Agricultural biodiversity

The Conference of the Parties

1. Stresses the importance of agricultural biodiversity for food security and nutrition, especially in the face of climate change and limited natural resources as recognized by the Rome Declaration of the 2009 World Summit on Food Security;¹
2. Notes with appreciation the ongoing work of the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture on the implementation of the agricultural biodiversity programme of work and the three international initiatives, on soil biodiversity, pollinators and biodiversity for food and nutrition, and welcomes the Strategic Plan for the period 2010-2017 for the implementation of the multi-year programme of work approved at the twelfth regular session of the Commission on Genetic Resources for Food and Agriculture in 2009, 2 and, in this context, welcomes the planned periodic publication of the State of the World's Biodiversity for Food and Agriculture, and on their different genetic resources components, which will provide a solid technical base for the development of action plans, and welcomes in particular the publication of the second State of the World's Plant Genetic Resources for Food and Agriculture report, which will provide a solid technical base for the further development of the global plan of action on plant genetic resources, as well as the adoption of the funding strategy for the implementation of the Global Plan of Action on Animal Genetic Resources, and invites Parties, and other Governments, to take into account the inter-disciplinary and inter-sectoral nature of these publications in their implementation of the programme of work on agricultural biodiversity;
3. Invites the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture, for areas within its mandate, to contribute to the implementation of the Strategic Plan for Biodiversity 2011-2020 by refining targets for agricultural biodiversity, including at the ecosystem and genetic resources levels, and monitoring progress towards them using indicators;
4. Welcomes, and notes the importance of, the joint work plan between the secretariats of the Convention on Biological Diversity and the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture contained in the annex to the note by the Executive Secretary on the follow-up to requests contained in its decision IX/1 prepared for the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice,³ its important contribution to the achievement of Millennium Development Goals 1 and 7, and the opportunities to further enhance the joint work plan in accordance with relevant matters arising from the Strategic Plan for Biodiversity 2011-2020, including consideration of matters in relation to targets and indicators of relevance to the programme of work, and relevant matters arising from the Strategic Plan 2010-2017 for the implementation of the multi-year programme of work of the Commission on Genetic Resources for Food and Agriculture;
5. Requests the Executive Secretary and invites the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture to work together in their design of the second phase of their joint work plan covering at least until 2017 focusing on refinements required as a result of the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020, but also considering, as necessary, inter alia:
 - (a) Underutilized crops, wild relatives of cultivated plants and other potential food sources, to improve human nutrition, to address the impacts of climate change and other pressures as well as to contribute to food security;
 - (b) On-farm, in situ and ex situ conservation of agricultural biodiversity; in accordance with decision IX/1 of the Conference of the Parties;
 - (c) Relevant aspects of access and benefit sharing consistent with relevant provisions of the Convention on Biological Diversity, including as subject to the outcomes of the negotiation on the international regime on access and benefit sharing under the convention, as well as within the context of the Commission on Genetic Resources for Food and Agriculture, taking into account existing cooperation between the two secretariats consistent with resolution 18/2009 of the Conference of the Food and Agriculture Organization of the United Nations;

- (d) A review of the trends on the extent of patents and other intellectual property rights, such as plant variety protection, applied for and granted over plant, animal and microbial genetic resources, including relevant forest and pasture and rangeland genetic resources, as identified by the Global Assessments of Biodiversity for Food and Agriculture of the Food and Agriculture Organization of the United Nations, including the impacts of such property rights on local and indigenous communities, and small-scale farmers in developing countries, bearing in mind action item VI.1 of the Strategic Plan 2010-2017 for the implementation of the multi-year programme of work approved at the twelfth regular session of the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations. This review should include, where appropriate, the impact on food security when genetic resources are patented or intellectual property rights are acquired for other sectors such as the pharmaceutical, cosmetic and other types of industries;
- (e) Potential actions to promote sustainable biodiversity-related agricultural practices that contribute to biodiversity as well as ecosystem based carbon sequestration of soils and to conserve and restore organic carbon in soil and biomass;
- (f) Ways and means to promote the positive and minimize or avoid the negative impacts of biofuel production and use on biodiversity and impacts on biodiversity that affect related socioeconomic conditions, bearing in mind decisions IX/2 and X/37, and any other relevant decisions of the Conference of the Parties;
- (g) Ways and means to strengthen cooperation to:
- (i) Obtain and consider the views of farmers' and producers' organizations and the views of indigenous and local communities; and
- (ii) Facilitate their effective participation in the deliberations of the Conference of the Parties to the Convention on Biological Diversity and of the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture and their contributions to the implementation of the work of these bodies, as appropriate;
- (h) A strengthened process to identify, indicate and disseminate information to relevant focal points of the Convention on Biological Diversity and the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture regarding matters of common interest;
- (i) Strengthening approaches which promote the sustainability of agricultural systems and landscapes such as, but not limited to, the Globally Important Agricultural Heritage Systems (GIAHS) of the Food and Agriculture Organization of the United Nations, consistent with the Convention on Biological Diversity and other relevant international obligations;
- (j) Promoting opportunities for sustainable increases in agricultural productivity, including through maintaining and/or restoring the functioning of agro-ecosystems, the biodiversity within them and the services they deliver, building on, inter alia, available synergies between sustainable agriculture and biodiversity including the conservation and sustainable use of genetic resources;
- (k) Promoting public awareness of the importance of agricultural biodiversity and its relationship to advancing food security, in the context of production oriented agro-ecosystems, at the global, regional, national and local levels;
- (l) The relevant findings and recommendations of the International Assessment of Agricultural Knowledge, Science and Technology for Development⁴ and their implementation, as appropriate; and
- (m) Further exploring possibilities for actions, where necessary, to rehabilitate agricultural ecosystems and landscapes and restore their socio-economic functions on land where agriculture has declined, or ceased, and where the land was degraded as a result, with the full and effective participation of indigenous and local communities, where appropriate;
6. Recognizes the importance of the processes led by the Food and Agriculture Organization of the United Nations, such as implementation of the Global Plan of Action on Animal Genetic Resources for Food and Agriculture⁵ and updating of the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture,⁶ which contribute directly to achieving the three objectives of the Convention on Biological Diversity, in crop and livestock sectors;
7. Invites Parties to incorporate, as appropriate, relevant elements of the programme of work on agricultural biodiversity into their national biodiversity strategy and action plans as well as into their relevant sectoral and inter-sectoral policies and plans;
8. Invites Parties and other Governments to take action, taking into account national circumstances, to support, among others, farmers in in-situ conservation of traditional and local varieties, races and breeds and efforts to conserve crop wild relatives as means to ensure food security and nutrition and support traditional lifestyles, consistent and in harmony with the Convention on Biological Diversity and relevant international obligations;
9. Requests the Executive Secretary to strengthen collaboration with the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to improve collaboration in the implementation of the programme of work on agricultural biodiversity and the Treaty, as appropriate;

10. Invites the national focal points of the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture to enhance their collaboration;
11. Invites the Food and Agriculture Organization of the United Nations to provide an expanded progress report on the implementation of the International Initiative on Soil Biodiversity (in addition to information already submitted in the progress report of the Food and Agriculture Organization of the United Nations on selected activities related to agricultural biodiversity circulated at the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice⁷) to the Executive Secretary for dissemination through the clearing-house mechanism;
12. Recognizes the importance of agricultural biodiversity and scientific, informal and traditional knowledge systems to the achievement of the objectives of the Convention, especially with regards to agricultural biodiversity, and recognizes the lead role of the Food and Agriculture Organization of the United Nations in supporting the implementation of the programme of work on agricultural biodiversity as well as related traditional knowledge systems, while also recognizing the important contributions and roles of other partners in this regard, including those of indigenous and local communities;
13. Noting the excellent progress made in collaboration between the Executive Secretary and the Food and Agriculture Organization of the United Nations, and that there is considerable benefit from further enhanced cooperation, requests the Executive Secretary and invites the Food and Agriculture Organization of the United Nations to strengthen their cooperation and invites Parties and other Governments to consider, as appropriate and feasible, providing further support to facilitate such enhanced cooperation;
14. Recognizes the continuing problems of nutrient loading caused by some agricultural practices, as noted in the in-depth review of the programme of work on inland water ecosystems,⁸ invites Parties and other Governments, in accordance with paragraph 40 of decision IX/1 of the Conference of the Parties to the Convention on Biological Diversity, to further enhance action on reducing nutrient loading caused by some agricultural practices and to provide further information to the Executive Secretary on the progress made, and requests the Executive Secretary to collate this information and to disseminate it through the clearing-house mechanism and other relevant means;
15. Notes the inter-connections between agricultural ecosystems and other ecosystems, particularly through land and water use activities, and invites Parties to consider the need for strengthened harmony between implementation of relevant elements of the programme of work on agricultural biodiversity and other programmes of work of the Convention, consistent with the ecosystem approach, including at national and, where appropriate, regional levels;
16. Expresses its appreciation to Bioversity International for seconding a staff member to assist the Executive Secretary, in particular regarding, inter alia, agricultural biodiversity and sustainable use;
17. Notes the importance of the issue of sustainable use of biodiversity to the programme of work on agricultural biodiversity and invites Parties and requests the Executive Secretary to ensure coherence between the programme of work on agricultural biodiversity and Article 10 of the Convention, on sustainable use, noting decision IX/1 paragraph 32, of the Conference of the Parties, relating to agriculture and the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity;
18. Requests the Executive Secretary and invites the Food and Agriculture Organization of the United Nations and Bioversity International, together with other relevant partners, including indigenous and local communities, subject to available resources, to provide further information on the nature of sustainable use of agricultural biodiversity and sustainable agriculture, including building upon information contained in the information note submitted by Bioversity International to the fourteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;⁹
19. Welcomes resolution X.31 of the tenth meeting of the Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971) on the subject "Enhancing biodiversity in rice paddies as wetland systems", which notes, inter alia, the culture of rice in 114 countries worldwide, that rice paddies (flooded and irrigated fields in which rice is grown) have provided large areas of open water for centuries and that they support a high level of rice associated biodiversity important for sustaining rice-paddy ecosystems, as well as providing many other ecosystem services, recognizes the relevance of this resolution to the implementation of the programme of work on agricultural biodiversity and invites relevant Parties, as appropriate, to fully implement this resolution;
20. Recognizes also the importance of agro-ecosystems, in particular rice-paddy and oasis systems, for the conservation and sustainable use of biodiversity, and invites the Food and Agriculture Organization of the United Nations, subject to resources, and in consultation with the Executive Secretary and relevant partners, including indigenous and local communities, to undertake further studies on the valuation of the biodiversity and ecosystem services provided by agricultural ecosystems, in order to further support policy-relevant guidance to Parties for consideration by the Conference of the Parties at its eleventh meeting, consistent and in harmony with the Convention on Biological Diversity and other relevant international obligations.