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.10

Future implementation of scientific and technical aspects of the Convention

1. RECALLING Resolution IX.2 (2005), in which the Contracting Parties for the first time adopted a complete, unified and prioritized programme of scientific and technical implementation activities for a triennium, and AFFIRMING that experience indicates this to have been an efficient and effective way of providing an overall picture of such activities, for planning and delivering work, deciding further priorities, and allocating resources;

2. HAVING REGARD TO Resolution IX.11 on the revised *modus operandi* of the Scientific and Technical Review Panel (STRP), as updated and refined by Resolution X.9 adopted by the present meeting of the Conference of the Contracting Parties;

3. AWARE that it has not been possible to progress some elements of STRP's priority work in the 2006-2008 triennium and that full delivery of the Panel's programme remains subject to resources, in particular to voluntary contributions from Parties and others; and

4. WARMLY THANKING those Parties and organizations that have contributed financially and in kind to the work of the STRP in the 2006-2008 triennium, and NOTING the significant benefits to the scope of the Panel's work that are afforded by voluntary contributions from Contracting Parties;

THE CONFERENCE OF THE CONTRACTING PARTIES

5. APPROVES the high priority actions for the STRP for the 2009-2012 period in Annex 1 to this Resolution, and ALSO APPROVES the list of tasks in Annex 2 as the basis for the programme of work for the Panel;

6. INSTRUCTS the Secretariat to consolidate into Annex 2 of this Resolution any additional or amended scientific and technical implementation actions for the STRP arising from other Resolutions adopted by the present meeting of the Conference of Parties;

7. CONFIRMS that this Resolution supersedes all those aspects of Resolution IX.2 and its Annexes relating to the work of the STRP; and

8. URGES Parties, donors, intergovernmental agencies, International Organization Partners, national NGOs, and others to use this programme, including the costed programme for

high priority STRP actions in Annex 1 of this Resolution, in deciding priorities for their financial and other material support towards the scientific and technical implementation of the Ramsar Convention, and FURTHER URGES Parties to consider making voluntary contributions to support the Panel's programme of work, particularly for those tasks indicated as being of a high priority.

Annex 1

High priority tasks for the STRP for the 2009-2012 period and estimated costs for their delivery

1. The 30 tasks listed in the tables below, and their estimated costs, have been recommended by the Scientific and Technical Review Panel (STRP) and COP10 as high priority activities for the STRP work plan for 2009-2012, selected from the full range of STRP tasks listed in Annex 2.

2. Provisional estimated costs are based on each task requiring the engagement by the STRP of an expert (or experts) to undertake the work required. Estimated costs have been provided by the STRP and its expert Working Groups – more precise costings and ways and means for the delivery of these tasks, not all of which may prove to require such funded expert consultancies, will be developed at the beginning of the 2009-2012 cycle through the mechanisms established under the revised STRP *modus operandi* (Resolution IX.11, as refined by Resolution X.9) for the development of STRP's work plan and reported to the Standing Committee.

3. Provisional estimated costs for the 30 2009-2012 High Priority tasks are CHF 635,000.

4. A summary title for each task and its anticipated type of output for each High Priority task is provided below. Task numbers refer to those in Annex 2. For a full description of each task, please refer to the relevant numbered task in Annex 2.

High Priority tasks and outputs	**Provisional estimated cost (Swiss francs)**
1. Ongoing functions of the STRP	
1.3 STRP National Focal Points support and network development	20,000
1.4 CEPA advice on guidance preparation	10,000
Subtotal:	**30,000**

2. Strategic scientific & technical implementation	
2.1 Agriculture and wetlands - guidelines	50,000
2.3 Wetlands and extractive industries - guidance review	20,000
2.4 Wetlands and energy issues – scoping review	10,000
2.6 Wetlands and poverty reduction – determine scope of guidance	Cost to be determined
2.10 Highly Pathogenic Avian Influenza (HPAI) – continuing review	5,000
Subtotal:	**85,000**

3. General wise use of wetlands	
3.1 MA response options – further advice	15,000
3.2 Wise Use case studies - dissemination	20,000
Subtotal:	**35,000**

4. Wetland inventory, assessment, monitoring and reporting	
4.2 Global Wetland Observing System (G-WOS) - development	20,000
4.3 Ramsar data and information needs – further elaboration	30,000
4.4 Describing ecological character – additional guidance	15,000
4.5 Harmonization of Ramsar Information Sheet (RIS) - options review	20,000
4.6 Detecting, reporting and responding to change in ecological character – further guidance	Cost to be determined
4.8 Indicators of effectiveness – operationalising the 1st tranche	25,000 (for coordination: costs of operationalising specific indicators additional and being estimated)
4.9 Indicators of effectiveness – development of the 2nd tranche	25,000
Subtotal:	**135,000**

5. Wetlands and human health	
5.1 Wetlands and human health – advice and guidance	60,000
Subtotal:	**60,000**

6. Wetlands and climate change	
6.1 Wetlands and climate change – further review and updated guidance	35,000
6.2 Climate change and wetlands mitigation and adaptation – collaborative activities	30,000
Subtotal:	**65,000**

7. Wetlands and water resources management	
7.3 Wetlands and water quality - guidance	20,000
7.4 Wetlands and water storage interactions – review and guidance	25,000
7.5 Water resources management in dry and sub-humid lands – guidance	25,000
7.7 Ramsar water and wetlands Resolutions – review of consolidation options	15,000
Subtotal:	**85,000**

8. Wetlands of International Importance (Ramsar sites)	
8.4 *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* – review and harmonization of Criteria, targets and guidance	25,000
8.6 Biogeographic regionalization schemes – availability and further assessment	25,000
8.7 Assessing under-representation in the Ramsar List – advice on gaps, targets and data and information sources	15,000
8.8 Reservoirs and other human-made wetlands – ecological significance review and designation guidance	20,000
Subtotal:	**85,000**

9. Wetland management – restoration, mitigation and compensation	

Annex 2

Full list of tasks for the Scientific and Technical Review Panel

Notes: References in parentheses (…) after each listed task give the main origins/sources of mandates for that task. Where a mandate from the COP9 scientific and technical priorities Resolution (Resolution IX.2) remains relevant, the Resolution IX.2 reference is given without (in most cases) specifying its antecedents. Giving such a reference does not necessarily mean that the wording of the task presented here is a verbatim transcription of the wording in Resolution IX.2.

The tasks identified as "HIGH PRIORITY", and listed in summary in Annex 1 above, are those which the STRP should, resources permitting, start working on as soon as possible.

Certain other tasks listed here (notably the "ongoing functions" tasks 1.1, 1.2 and 1.5) are also recognized as essential for the STRP to undertake, but they will be addressed, resources and capacity permitting, throughout the triennium as and when the need or request arises. Some additional resources may be needed to fully deliver this work.

As capacity and resources permit, the STRP will also seek ways and means of initiating implementation of certain other tasks listed here.

List of thematic sections in this Annex

1. Ongoing functions of the STRP
2. Strategic scientific & technical implementation
3. General wise use of wetlands
4. Wetland inventory, assessment, monitoring and reporting
5. Wetlands and human health
6. Wetlands and climate change
7. Wetlands and water resources management
8. Wetlands of International Importance (Ramsar sites)
9. Wetland management, mitigation, restoration and compensation
10. Communication, education, participation and awareness (CEPA)

1. Ongoing functions of the STRP

Note. All functions listed in this section, whether or not identified as High Priority, are treated by the STRP as "essential tasks" to be undertaken as and when required.

1.1 Strategic scientific and technical advice. Provide both proactive and reactive advice to the Convention on relevant strategic scientific and technical matters, including overall progress with scientific and technical aspects of the implementation of COP Resolutions, trends, emerging issues, and other priority matters requiring expert review (see also tasks listed in section 2 of this annex).
(Resolution IX.2 tasks 2 & 3)

1.2 Ongoing advisory functions. Continue to provide advice under the following functions as and when requested:

i) advising, when requested, on Ramsar site designation and management issues, including on Article 3.2 reports concerning change in ecological character;
ii) advising the Secretariat on requests from Contracting Parties for removing Ramsar sites from the Montreux Record of sites facing damaging change in ecological character;
iii) advising on any request from a Contracting Party to participate in the activities of a different Ramsar region to that which it is assigned under the regional categorization of the Convention;
iv) assisting Contracting Parties and bilateral development agencies in screening, developing and evaluating wetland projects;
v) receiving progress reports and advising on future needs and developments of the Ramsar Sites Information Service; and
vi) ensuring cooperation, exchange of information, and coordination of activities related to wetlands science, where appropriate, with the scientific and technical subsidiary bodies (and their related processes) of other MEAs and relevant regional fora, through actions defined in Joint Work Plans, through the Chairs of Scientific Advisory Bodies (CSAB) process and by other means, with a view *inter alia* to: promoting cross-adoption and endorsement of principles, guidance, resolutions; sharing work programmes in order to identify common areas, gaps and opportunities for joint work; and improving scientific collaboration in general.

(Resolution VIII.28; Resolution IX.11, Resolution IX.2 task 4, Resolution X.11, Resolution X.1: strategies 1.5, 3.1)

1.3 STRP National Focal Points - support and network development. Continue to strengthen the role and participation of STRP National Focal Points (NFPs) in the work of the Panel, *inter alia* by:

i) enhancing the methods for and frequency of regular contacts between Panel Members and STRP NFPs;
ii) identifying opportunities and mechanisms for holding intersessional regional or subregional meetings of STRP NFPs;
iii) compiling improved information on the interests and expertise of all STRP NFPs;
iv) engaging the STRP NFPs in the identification of relevant national experts who may, in relation to specific individual STRP tasks, be able to review draft documents and make other inputs as appropriate;
v) at the request of a given Administrative Authority, involving its STRP NFP in monitoring and evaluating any SGF projects in that country;
vi) keeping the terms of reference and *modus operandi* of STRP NFPs under review, with a view to identifying potential future improvements and to providing any further guidance to STRP NFPs that may be required.

(Resolution VIII.28; Resolution IX.11, Resolution IX.2 task 4, Resolution X.9)
HIGH PRIORITY

1.4 CEPA advice on guidance preparation. Ensure that the preparation of STRP guidance and advice materials draws fully on expertise available to the Convention concerning Communication, Education, Participation and Awareness (CEPA) in order to optimize the effective drafting, design, targeting and uptake of such materials; and ensure that CEPA experts also contribute to promoting and researching uptake of such materials and the

scientific and technical profile of the Convention in general, including the ongoing documentation of lessons learned. (see also related tasks in section 10 CEPA.)
(Annex to Resolution IX.11, Resolution IX.2 task 152)
HIGH PRIORITY

1.5 **Review of draft COP Resolutions.** Review and comment on proposals from Contracting Parties for COP Resolutions with scientific or technical content, and provide this advice to the Standing Committee and COP.
(Resolution IX.2 task 1)

2. Strategic scientific and technical implementation

Note. Tasks in this section cover STRP work on strategic and emerging issues and on specific sectoral issues. Where possible, the STRP will draw on successful experiences from the different Ramsar regions in order to support their work on these tasks.

2.1 **Agriculture and wetlands - guidelines.** In the light of the outcomes of the "Comprehensive Assessment on water management in agriculture" (CA), the "Water for food and ecosystems" initiative and the "Guidelines on Agriculture and Wetland Interactions" (GAWI) Framework for guidance, contribute to the testing of existing guidance and/or development of further guidance on wetlands and agriculture interactions, in the context of Resolution VIII.34.
(Resolution IX.2 tasks 149 and 150, STRP 14)
HIGH PRIORITY

2.2 **Agriculture and wetlands – advice on assessments**. Prepare further advice to the Contracting Parties on the interrelated Comprehensive Assessment of Water Management in Agriculture (IWMI, CGIAR initiative) and Global Environment Outlook-4 (GEO-4) of UNEP.
(STRP14, Resolution X.18]

2.3 **Wetlands and extractive industries - guidance review.** Working with UNEP, IUCN, and other relevant organizations:

i) Review available technical guidance on assessing, avoiding, minimizing and mitigating the direct and indirect impacts of extractive industries on wetlands in the exploration, development, operation, closure and post-closure phases, taking into account the potential for adoption of new or emerging extraction technologies and paying particular attention to restoration options, and
ii) on the basis of this review, to make recommendations regarding the suitability of available technical guidance and the need, if any, for development of new technical guidance.

(STRP14, Resolution X.26)
HIGH PRIORITY

2.4 **Wetlands and energy issues - review.** Conduct a scoping review of the implications for wetlands of energy generation and distribution activities, covering both the conventional and renewable energy sectors, having regard to issues concerning climate change and wetlands, linking as appropriate to work done in relation to the task on extractive

industries defined separately in the present Annex above, and taking account of up-to-date evolving policy perspectives in these sectors and on issues of energy security in general. (STRP14)
HIGH PRIORITY

2.5 Economic sector issues for wetlands - review. Conduct a scoping review of technical aspects of relevance to the Ramsar Convention in the finance, banking, investment, insurance and other economic sectors, with a view to developing enhanced understanding of the implications for wetland-related policy and decision-making of economics-based approaches to investment and insurance risk analysis, tradeoffs, incentives, perverse incentives, modelling, forecasting, water and wetland commodities pricing, hunting and harvesting in wetlands, trade in wetland products, flood risk management, floodplain planning controls, health costs and benefits, and other aspects, taking into account evolving perspectives on valuation of wetland ecosystem services, having regard to opportunities for raising awareness of wetland issues in the financial sector.
(Resolution IX.2 task 167, STRP14)

2.6 Wetlands and poverty eradication – guidance scope. Working with the IOPs and other interested organizations and networks to review the framework for actions set out in Resolution IX.14 and Resolution X.28, and on the basis of this to develop proposals for the most appropriate form and specific scope of scientific and technical guidance on wetlands and poverty eradication for Contracting Parties to support the implementation of these Resolutions, which might include *inter alia*:

i) development of an integrated framework for linking wetland conservation and wise use with poverty eradication, including the identification of the most appropriate scale at which each type of poverty eradication action should take place, and also taking into account the possible effects of hunting and harvesting in wetlands;
ii) identification and development of indicators relating wetland wise use with livelihoods and poverty eradication;
iii) development of a practical structured 'guide to the available guidelines and tools' for addressing poverty eradication in relation to wetlands; and
iv) collation and review of examples of how wetland degradation affects people's livelihoods and how maintenance or restoration of the ecological character of wetlands can contribute to poverty alleviation, including from documented case studies provided Contracting Parties, the IOPs, and others that demonstrate that the wise use of wetland resources by local communities can provide a significant contribution to poverty eradication

(Resolution IX.14, Resolution IX.2 task 19, Resolution X.28)
HIGH PRIORITY

2.7 Planning and management of urban and peri-urban wetlands - guidance. In the light of advice from Contracting Parties through their STRP National Focal Points on issues concerning urban and peri-urban wetlands that would benefit from additional scientific and technical guidance, consider the preparation of guidance for Contracting Parties and consider ways to disseminate information to Contracting Parties on managing urban and peri-urban wetlands, in accordance with an ecosystem approach, and taking into account issues such as climate change, ecosystem services, food production, human health and livelihoods.
(STRP14, Resolution X.27)

2.8 Wetlands and fisheries – guidance needs review. Review remaining needs and gaps in guidance relating to wetlands and fisheries, taking account of the materials produced to date in response to tasks 17 and 18 in Resolution IX.2, and prepare advice on what further scientific and technical guidance may be required, if any, with a suggested work plan for its completion.
(STRP14)

2.9 Wetlands and tourism - scoping review. Conduct a brief scoping review of needs, options and opportunities for development of advice on scientific and technical aspects of tourism, sustainable tourism, ecotourism and other recreational activities in relation to wetlands, also taking into account the effects of tourism-related hunting and harvesting in wetlands.
(Resolution IX.2 task 164, STRP14)

2.10 Highly Pathogenic Avian Influenza (HPAI) – continuing review.

i) Maintain an active overview of and input to issues relating to Highly Pathogenic Avian Influenza (HPAI), especially in relation to surveillance, information-exchange and response strategies, including by continued participation in the Scientific Task Force on Avian Influenza and Wild Birds, and including a determination of whether lessons learnt from best practice responses to HPAI H5N1 have implications for Ramsar guidance relating to protected sites and other aspects of wetland wise use, followed by the development of any necessary proposals for modifying such guidance; and

ii) in collaboration with other relevant organisations, consider how best to develop practical guidance on the prevention and control of other diseases of either domestic or wild animals in wetlands, especially those diseases that have implications for human health, and how such guidance can be best incorporated into management plans at Ramsar sites and other wetlands.

(Resolution IX.23, Resolution IX.2 task 62, STRP14, Resolution X.21)
HIGH PRIORITY

2.11 Waterbird flyway initiatives – knowledge-sharing. Contribute as appropriate to joint efforts with the Ramsar Secretariat and the secretariats and subsidiary bodies of the Convention on Migratory Species, the Agreement of African-Eurasian Waterbirds, and other interested organizations to establish a mechanism for sharing knowledge and experience on best practices in the development and implementation of flyway-scale waterbird conservation policies and practices, including successful means of disseminating critical supporting data and information to stakeholders and others.
(Resolution X.22 Resolution X.1: strategy 3.5)

2.12 Invasive species and wetlands guidance. Prepare comprehensive and up-to-date global guidance on invasive species in relation to wetlands and their management, in cooperation with the Global Invasive Species Programme (GISP) and other relevant organizations. (See also task 6.1 iv.)
(Resolution X.1: strategy 1.9)

2.13 Corporate "water footprint" assessments. Assess guidelines, such as those of the Water Footprint Network, that have been developed to support companies in assessing their

water 'footprint' as a part of programmes of corporate environmental and social responsibility.
(Resolution X.12)

2.14 Rice paddy biodiversity and management. Working with other interested organizations:

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.

(Resolution X.31)

2.15 Other sectoral and/or emerging issues – watching brief. Maintain a "watching brief", including opportunistic collation of relevant information, on the following issues:

i) soil and land degradation impacts on wetlands, including the potential scope for collaboration with the UN Convention to Combat Desertification;

ii) shifting patterns of human population distribution and the impacts of these on wetlands, including the potential scope for developing a better understanding of information needs, linked *inter alia* with relevant aspects of work on climate change;

iii) beyond the consideration of forest issues within the tasks defined elsewhere in the present Annex on climate change and energy, other aspects of the effects on wetlands of afforestation, deforestation and reforestation, awareness needs in the forests sector concerning forested wetlands and wetland-dependent forests, and knowledge needs concerning representation of relevant wetland types in the Ramsar List of Wetlands of International Importance (Resolution IX.2 task 165);

iv) governance issues of relevance to wetlands, including policy options concerning corporate social responsibility, and prevention of and responses to governance failures (including corruption), having regard *inter alia* to Resolution X.18;

v) wetlands and conflict, taking account of the background information exchanged within the STRP during the 2006-2008 triennium, and having regard as appropriate to Article 5 of the Convention;

vi) any need for guidance on specific scientific and technical implementation issues in transboundary contexts;

vii) wetlands and genetically modified organisms (GMOs), in collaboration where appropriate with the Convention on Biological Diversity.

(STRP 14)

2.16 Future priorities - assessment. In addition to any proposals arising from the "watching brief" task defined above, consider what priority, if any, might need to be given to work or further work in relation *inter alia* to the following issue areas:

i) social aspects of water management and social impact assessment;

ii) industrial sectors not mentioned in the list of other tasks defined in the present Annex;
iii) biodiversity conservation, protected areas and wildlife population management;
iv) hunting and harvesting in wetland ecosystems, whether for subsistence, commerce or recreational purposes;
v) and in general utilise the "Changwon Declaration" (Resolution X.3 *The Changwon Declaration on human well-being and wetlands*) in the establishment of priorities, feeding back experiences on its uptake to the Secretariat.
(Resolution IX.2 task 167, STRP14, Resolution X.3)

3. General wise use of wetlands

3.1 MA response options – further advice. Continue to develop ways in which to further promote and best utilize the findings of the Millennium Ecosystem Assessment, especially those concerning response options, and in particular by developing Ramsar guidance on response options which address broad implementation themes not currently covered by the toolkit of Ramsar Wise Use Handbooks, including *inter alia* nutrient cycling, food, and climate change, and including advice on responses at sub-global scales.
(Resolution IX.2 task 13, STRP 14, Resolution X.18)
HIGH PRIORITY

3.2 Wise Use case studies - dissemination. Prepare advice on maximizing the utility, both to the STRP and others, of case studies prepared in recent years on aspects of wetland wise use, to include proposals for the design of appropriate Web-based resources to assist in making such case studies more widely available.
(STRP14)
HIGH PRIORITY

4. Wetland inventory, assessment, monitoring and reporting

4.1 Status of wetland inventories. Prepare a summary update report on the status of global and regional wetland inventories, referring as appropriate *inter alia* to the update of the *Global Review of Wetland Resources and Priorities for Wetland Inventory* (GroWI-2), the WSSD Type II partnership with FAO-GTOS, Web-based dissemination of regional inventories and directories, and other relevant collaborations, in particular those with earth observation agencies, and including appropriate recommendations on methodologies, coverage gaps, harmonization, awareness and knowledge-exchange.
(Resolution IX.2 task 51, STRP14, Resolution X.1: strategy 1.1)

4.2 Global Wetland Observing System (G-WOS) - development. Draw up a specification for a global system for wetland observation (G-WOS), which would:

i) draw on collaboration, data and analyses from relevant earth observation programmes and agencies, the WSSD Type II partnership with FAO-GTOS, the Millennium Ecosystem Assessment, and other relevant sources;
ii) include elements of a Web-based wetland inventory meta-database; and
iii) serve to support relevant Ramsar effectiveness indicators (primarily indicator A(i) on status and trends in ecosystem extent) and other needs specified in Resolution X. [COP10 DR 14 on Data and information needs for management of wetlands],

including those relating to inventory and wetland condition associated with agriculture, climate change, and human health.

(Resolution IX.2 task 50, STRP14, Resolution X.14, Resolution X.1: strategy 1.2)

HIGH PRIORITY

4.3 Ramsar data and information needs – further elaboration. In relation to Resolution X.14 on *A framework for Ramsar data and information needs*:

i) update and further develop the Convention's *Framework for Ramsar data and information needs*, drawing on implementation experience, end-user perspectives, and analysis of further needs defined in the decisions of COP10, in particular in relation to the data and information needs for identification and designation of Ramsar sites;

ii) produce a companion document identifying actions and action gaps of relevance to meeting the needs defined in the Framework at different scales;

iii) make use of the Framework *inter alia* to inform harmonization/interoperability activities with other MEAs; construction/prioritization of relevant project proposals either developed or supported by the Ramsar Convention; and the future development of the Ramsar Sites Information Service;

iv) with the Secretariat, continue to cooperate with the CBD Secretariat, UNEP, and UNEP-WCMC in the development of a framework for harmonized reporting on implementation on inland waters for the CBD and the Ramsar Convention.

(Resolution IX.2 task 52, STRP14, Resolution X.11, Resolution X.14)

HIGH PRIORITY

4.4 Describing ecological character - guidance. Develop further the Convention's guidance on describing ecological character (Resolution X15) to include, to the extent practicable:

i) further operational guidance for practitioners on completing the ecological character description sheet for sites;

ii) guidance and information on using relevant conceptual models;

iii) cross-references, where available, from each relevant description sheet data field to worked examples, case studies or other appropriate sources of potential, actual or *de facto* standards for completing the fields;

iv) guidance on the scope for using Ramsar information fields in enhancing harmonisation and streamlining of reporting under related MEAs; and

v) a review of practical implementation experiences, with lessons learned.

(STRP14, Resolution X.15)

HIGH PRIORITY

4.5 Harmonization of RIS - options review. Review options for, and as necessary prepare proposals for, re-structuring and/or revising the format of the Information Sheet on Ramsar Wetlands (RIS) and its accompanying Explanatory Notes and Guidelines to take account of the recommendations in Resolution X.15 on *Describing wetland ecological character, and data needs and formats for core inventory: harmonized scientific and technical guidance*, other relevant decisions adopted by COP10, other requirements (including protocols regarding shared sites), and the outcome of other tasks listed in the present Annex which relate specifically to the RIS, including (but not necessarily limited to) the tasks on Ramsar site Criteria, ecological character description, and Ramsar site information needs.

(Resolution IX.2 task 106, STRP14, Resolution X.15)

HIGH PRIORITY

4.6 Detecting, reporting and responding to change in ecological character – further guidance. In the context of Article 3.2 and the guidance in the Annex to Resolution X.16 on *A framework for processes of detecting, reporting and responding to change in ecological character*, develop further guidance on issues including:

i) "limits of acceptable change", including guidance on defining the range of natural variability of a site;
ii) determining confidence limits and degree of likelihood in cases of "likely" change in the context of Article 3.2;
iii) the application of a precautionary approach in the Ramsar Convention; and
iv). appropriate procedures for the Secretariat and Contracting Parties to consider reports made by third parties of change or likely change to the ecological character of Ramsar sites.

(STRP14, Resolution X.13, Resolution X.16)
HIGH PRIORITY

4.7 Montreux Record questionnaire redesign. Prepare advice on redesigning the Montreux Record questionnaire to ensure consistency with the recommendations in Resolution X.15 on *Describing wetland ecological character, and data needs and formats for core inventory: harmonized scientific and technical guidance* and Resolution X.16 on *A framework for processes of detecting, reporting and responding to change in ecological character*, and to take account of other perceived priority requirements.
(Resolution IX.2 task 56, STRP14)

4.8 Indicators of effectiveness – operationalizing the 1st tranche. Assist the Secretariat in operationalizing the first tranche of Ramsar indicators of effectiveness of implementation of the Convention agreed by COP9, including implementation of Indicator Collaboration Agreements, publishing and disseminating results and conclusions, contributing to 2010 biodiversity target activities and other relevant assessments, and reporting to Standing Committee and COP11.
(Resolution IX.1 Annex D, Resolution IX.2 task 59, STRP14, Resolution X.1: strategy 2.6)
HIGH PRIORITY

4.9 Indicators of effectiveness – development of the 2nd tranche. Further develop, test and put forward for use by Parties and others as appropriate the second tranche of indicators of effectiveness of the implementation of the Convention agreed by COP9.
(Resolution IX.1 Annex D, Resolution IX.2 task 60, STRP14, Resolution X.1: strategy 2.6)
HIGH PRIORITY

4.10 Convention monitoring and assessment – scientific and technical aspects. In ways which are complementary and supplementary to the work on effectiveness indicators specified in other tasks in the present Annex above, assist the Secretariat, Standing Committee and Parties in relation to the scientific and technical aspects of their monitoring and assessment of the performance of the Convention through the Key Result Areas defined in the Ramsar Convention Strategic Plan 2009-2015 and assessment of information in COP National Reports.
(STRP14, Resolution X.1)

4.11 Status and trends of wetlands, including Ramsar sites - assessment. Prepare an analysis of the status and trends in the ecological character of sites in the Ramsar List, set as far as possible in the context of the status and trends of wetlands more generally and drawing as appropriate on the Ramsar Sites Database, the Convention's indicators of implementation effectiveness, the results of the Millennium Ecosystem Assessment, and other assessment initiatives, and seeking in turn to contribute to relevant assessment processes including those relating to international 2010 biodiversity targets.
(Resolution IX.2 tasks 57 and 58, Resolution X.1: strategies 1.2 & 2.6)

4.12 Management effectiveness tools – guidance. Prepare guidance on how the Management Effectiveness Tracking Tool (METT) developed by WWF, the World Bank and others can be applied by Contracting Parties for regularly assessing detection, reporting and responses to change in wetland ecological character.
(Resolution X.16)

5. Wetlands and human health

5.1 Wetlands and human health – advice and guidance. Investigate further the links between wetlands and human health and well-being, in particular by:

i) developing, from the STRP's 2008 report and other relevant sources, further products for the human health sector concerning human health and wetlands;
ii) further assessing the interactions between wetland ecosystems and their services and human health and well-being, having regard also to the human health dimension of the task defined separately in the present Annex above concerning Highly Pathogenic Avian Influenza H5N1, and the risks posed to human health and to wetlands by the spread of diseases through illegal trade in or movement of wetland products and species;
iii) developing interpretations and conceptual thinking in a Ramsar context of the applicability or otherwise of "health" to wetland ecosystems, the relationship of wetland ecosystem health to the concepts of ecological character and ecosystem services, and the implications for implementing and monitoring wise use and ecological character objectives under the Convention, taking into account both socioeconomic and ecological considerations;
iv) identifying gaps in knowledge and information on wetlands and human health for different regions, and identifying ways and means of filling such gaps;
v) identifying opportunities to promote the importance of Ramsar sites which are significant for human health; and
vi) preparing guidance for wetland managers and the human health sector on processes for identifying appropriate responses to the co-management of wetlands and human health issues, including trade-offs and including application of health impact assessment approaches, increased transparency of information, representation of marginalized stakeholders, and engagement with the core business of other sectors such as water management.

(STRP14, Resolution X.23)
HIGH PRIORITY

6. Wetlands and climate change

6.1 Wetlands and climate change – further review and guidance. Develop guidance, working with the IPCC and others, on the latest knowledge of the current and potential impacts of climate change on wetlands and on appropriate policy and management responses for addressing these impacts on wetlands, including *inter alia*:

i) building on initial work done in the 2006-2008 triennium, further development of methods for assessment of hydro-ecological impacts of climate change on wetlands, including the testing of such methods in data-poor areas;
ii) a review of wetland distribution in relation to land use and population distribution trends, in order to demonstrate potential effects on human health if wetlands are lost due to climate change impacts;
iii) guidance on how wetland management and restoration can contribute to improving adaptation to climate change (linking as appropriate with the other tasks on wetland restoration and rehabilitation defined separately elsewhere in the present Annex);
iv) review emerging information on the ways in which, *inter alia*, changes in wetland thermal and chemical regimes, hydro-patterns, and increases in water storage and conveyance infrastructure, including impoundments, potentially alter the pathways by which non-native species invade wetlands and influence their spread, persistence and ecological impacts on native species (see also task 2.12); and
v) liaise with the Arctic Council on an assessment of the vulnerability of Arctic wetlands to climate change and the development of guidelines for wise use while taking account of the ongoing Arctic Biodiversity Assessment.

(STRP 14, Resolution X.24)
HIGH PRIORITY

6.2 Climate change and wetlands mitigation and adaptation – collaborative activities. In conjunction with the Ramsar Secretariat, collaborate with relevant international conventions and agencies, including UNFCCC, CBD, UNCCD, IPCC, UNEP, UNDP, FAO and World Bank, in the development of a multi-institutional coordinated programme of work to investigate the potential contribution of wetland ecosystems to climate change mitigation and adaptation, in particular for reducing vulnerability and increasing resilience to climate change, and in addition:

i) establish ways and means of collaborating with the UNFCCC and other relevant bodies to develop guidance for the development of mutually supportive adaptation and mitigation programmes that recognize the critical role of wetlands in relation to water and food security as well as human health;
ii) bring scientific issues and information on wetlands and climate change to the attention of the Chairs of the Scientific Advisory Bodies of the Biodiversity-related Conventions (CSAB) at the next available opportunity, and use this forum to encourage enhanced scientific collaboration on issues related to wetlands and climate change;
iii) establish ways of collaborating with the IPCC on scientific issues specifically related to wetlands and climate change, and contribute to its future work in order to raise the awareness of the climate change community regarding the importance of wetlands, including through the preparation and publication of relevant scientific reports on wetlands and climate change.

(STRP 14, Resolution X.24)
HIGH PRIORITY

6.3 Biofuels and wetlands – review and guidance.

i) review the global distribution of biofuel production in relation to impacts on wetlands;
ii) review and collate existing best management practice guidance and social and environmental sustainability criteria for growing biofuel feedstocks in relation to wetlands, and where appropriate develop such guidance and criteria;
iii) consider further discussion between the Contracting Parties on addressing sustainable biofuel issues in relation to wetlands;
iv) advise the Standing Committee of the conclusions; and
v) work with relevant international bodies dealing with biofuels.

(Resolution X.25)

7. Wetlands and water resources management

7.1 Implementation of river basin management plans - review. Review, to the extent practicable, available experience in implementation of river basin management plans, including experience in applying national laws on environmental flows, and document the lessons emerging.
(STRP14)

7.2 Integrated water and coastal management - case studies. Investigate ways of making optimal use of existing collated case studies for illuminating good practice concerning river basin management, integrated coastal zone management, and national laws on environmental flows and other water management issues, with reference to relevant volumes in the Ramsar Wise Use Handbooks series.
(STRP14, Resolution X.1: strategy 1.7).

7.3 Wetlands and water quality - guidance. Develop guidance on water quality issues related to wetlands, building on the materials collated and drafted by the STRP during the 2006-2008 triennium, with a view to integrating the final outputs into the *Integrated Framework for the Ramsar Convention's water-related guidance.*
(Resolution IX.2 task 91, STRP14).
HIGH PRIORITY

7.4 Wetlands and water storage interactions - guidance. Prepare a technical report on wetlands and water storage (including *inter alia* dams and groundwater) interactions, to provide further information and expanded guidance for supporting the implementation of the Resolution IX.1 Annex C ii *Guidelines for the management of groundwater to maintain wetland ecological character*, including *inter alia*:

i) issues concerning emerging perspectives on water storage in relation to security of supply of water, food and energy *inter alia* in the context of climate change;
ii) options for guidance on optimizing the operation of dams and other water management infrastructure (including flood defence and flood alleviation systems) for the benefit of upstream and downstream wetland ecosystems; and
iii) taking into account the ecological roles played by reservoirs and other human-made wetlands (task 8.8).

(Resolution IX.1 Annex C ii, Resolution IX.2 task 90; STRP14).
HIGH PRIORITY

7.5 Water resources management in dry and sub-humid lands – guidance. Develop guidance on water resources management in dry and sub-humid lands, including aspects relating to climate change and desertification, in consultation with the Convention on Biological Diversity in the context of the Ramsar-CBD Joint Work Plan, and in consultation with the UN Convention to Combat Desertification.
(Resolution IX.2 task 86, STRP14).
HIGH PRIORITY

7.6 Environmental water requirements for palustrine wetlands – options for guidance. Review needs and possible options for development of guidance on the determination of environmental water requirements for palustrine wetlands.
(Carried forward from STRP 2003-5 work plan, STRP14).

7.7 Ramsar water and wetlands Resolutions – review of consolidation options. Building on work done through the Standing Committee in the 2006-2008 triennium under Resolution IX.17 on the *Review of the decisions of the Conference of the Contracting Parties*, by COP12 review all adopted Ramsar COP Resolutions concerning water and wetland interactions, make recommendations concerning consolidation, updating and retirement of aspects of these Resolutions in relation to recent developments, and prepare a new draft Resolution concerning water and wetlands issues, including any necessary updating of the *Integrated Framework for the Ramsar Convention's water-related guidance* adopted by COP9 in Resolution IX.1 Annex C.
(STRP14, Resolution X.19).
HIGH PRIORITY

8. Wetlands of International Importance (Ramsar sites)

8.1 Ramsar site Criteria and Guidelines - ongoing review. In addition to specific tasks listed below concerning the Ramsar site Criteria, keep the Criteria and Guidelines as a whole under review on an ongoing basis to ensure that they reflect global wetland conservation and wise use priorities (ongoing STRP function).
(Resolution IX.2 task 112).

8.2 Population estimates for applying Ramsar site Criteria 6 & 9 – updating. Periodically secure the updating (by other qualified bodies where appropriate) of the list of relevant population estimates and 1% thresholds for the application of Ramsar site Criteria 6 and 9 (ongoing STRP function).
(Resolution IX.1 Annex B, STRP14)

8.3 Guidance on selection of Ramsar sites for particular wetland types – user-needs review. Following, and in light of, the findings of the general review of the availability and utility of the Convention's scientific and technical guidance undertaken during the 2006-2008 triennium, conduct with input from CEPA experts a more detailed and specific review of user needs in relation to the Convention's guidance on selection of Ramsar sites for particular wetland types and the effectiveness of the guidance in meeting those needs; and develop proposals for any improvements or additions that may be necessary.
(Resolution IX.2 task 107, STRP14).

8.4 ***Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* – review and harmonization of Criteria, targets and guidance.** Building on preliminary analyses begun during the 2006-2008 triennium, and without prejudice to the ongoing task of keeping the Ramsar site Criteria and Guidelines generally under review (task 8.1 above), conduct a thorough review and make proposals concerning the consistency, completeness, logic, coherence and clarity of the targets, guidelines and other materials that support the implementation of the Criteria, including (but not limited to) targets in the Convention's Strategic Plan, sources of contextual data for scientific evaluations, and guidance in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* as amended.
(Resolution IX.2 tasks 110 and 112, STRP14).
HIGH PRIORITY

8.5 **Criterion 9 contextual information needs - review.** Conduct a specific review of the contextual information that can and should support the application of Criterion 9, and make recommendations in this regard.
(STRP14)

8.6 **Biogeographic regionalization schemes – availability and further assessment.** Following the work completed during the 2006-2008 triennium on biogeographic regionalization schemes of relevance to the application of the Ramsar Criteria:

i) develop a Web-based portal for downloadable GIS-based information on the relevant schemes for realms, provinces, and ecoregions, to be hosted within the Ramsar Sites Information Service;
ii) investigate further the usefulness of existing terrestrial and inland biogeographical regionalization schemes for supporting the application of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance*.

(STRP14, Resolution X.20).
HIGH PRIORITY

8.7 **Assessing under-representation in the Ramsar List – advice on gaps, targets and data and information sources.** Further develop advice on identifying and addressing under-representation in the Ramsar List, and investigate methods for defining targets for representation of wetland types in the List, including advice on data sources and methods for evaluating representativity of particular wetland types, and making links to relevant indicators of Convention effectiveness, with an overall emphasis on connectivity and other aspects of functional coherence of site networks, and including a review of experience at regional and other levels with such network concepts.
(Resolution IX.2 task 104, STRP14, Resolution X.20).
HIGH PRIORITY

8.8 **Reservoirs and other human-made wetlands – ecological significance review and designation guidance.** Having regard to the tasks defined separately elsewhere in this Annex relating to urban wetlands and to dams and other water management infrastructure:

i) review the ecological significance of reservoirs and other human-made wetlands, including their use by aquatic and other water-dependent biota; and
ii) prepare further guidance for Contracting Parties concerning the identification and designation of such wetlands for the Ramsar List, taking into account the experience

gained by Parties that have already done so and in collaboration with other interested bodies.
(Resolution IX.2 task 108, STRP14).
HIGH PRIORITY

8.9 Management of transboundary Ramsar sites – review of case studies. Assess a selection of case studies drawn from the Transboundary Ramsar Sites initiative, in order to summarise the existing range of flexible options regarding the designation and management of Transboundary Ramsar Sites.
(Standing Committee Decision 38-6; COP10 plenary)

9. Wetland management – restoration, mitigation and compensation

9.1 Mitigation and compensation for wetland loss – guidance. Develop guidance on mitigation of and compensation for losses of wetland area and wetland values, in the context of Resolution X.16 on *A Framework for processes of detecting, reporting and responding to change in ecological character*, and including lessons learned from available information on implementation of "no net loss" policies, the "urgent national interest" test, and other aspects relating to situations in which Article 2.5 and 4.2 and/or Resolution VII.24 are relevant.
(Resolution IX.2 tasks 128 and 166, STRP14, Resolution X.16).
HIGH PRIORITY

9.2 Wetland restoration – updating and expansion of guidance. Prepare proposals for updating and expanding existing Ramsar guidance on restoration and rehabilitation of lost or degraded wetlands, in the context of Resolution X.16 on *A Framework for processes of detecting, reporting and responding to change in ecological character*, including approaches to prioritization and links with other Ramsar tools and guidance, *inter alia* those on climate change and on economic values of ecosystem services.
(Resolution IX.2 task 127, STRP 14, Resolution X.16, Resolution X.1: strategy 1.8).
HIGH PRIORITY

10. Communication, education, participation and awareness (CEPA)

10.1 Optimal presentation of Ramsar guidance – further advice. Make further contributions to proposals concerning optimal presentation of scientific and technical aspects of Ramsar guidance in the light of findings from reviews of uptake and effectiveness of existing guidance, and in conjunction with actions flowing from Resolution IX.17 concerning consolidation and retrial of COP decisions.
(Resolution IX.2 tasks 3 & 5, STRP14).

10.2 Preparation of outreach materials based on STRP substantive guidances. Seek opportunities to prepare materials for outreach purposes, particularly for decision-makers and other key stakeholders in relevant sectors, to support increased awareness and understanding on topics that are the subject of substantive guidance prepared by the STRP.
(Resolution IX.2 task 153).

10.3 Contracting Party training and capacity-building in using Ramsar guidance. Develop effective ways of providing training and capacity-building for relevant stakeholders in Contracting Parties to assist with the interpretation and implementation of

scientific and technical guidance and other materials prepared by STRP, with the assessment and definition of future needs.
(STRP14, STRP Chair at SC36).
HIGH PRIORITY