



Consultancy on wetlands and sustainable agriculture

Background

The Convention on Wetlands, also known as the “Ramsar Convention” is an intergovernmental treaty, which provides the framework for national action and international cooperation for the conservation and sustainable use of wetlands. It was the first of the modern global multilateral environmental agreements and remains the only one devoted to a specific critical ecosystem.

The Scientific and Technical Review Panel (STRP) is a subsidiary body of the Convention tasked with providing scientific and technical advice to the Conference of Parties, the Standing Committee and the Secretariat.

The [STRP work plan 2019-2021](#) contains a task (task 1.2) on wetlands and sustainable agriculture, which requests the STRP to: “Compile and review positive and negative impacts of agricultural practises on wetlands including [reporting on] extent of changes in area from agricultural land conversion since 1970s, and [describing] how adverse impacts can be avoided in the future”. This task responds to Contracting Parties’ requests to the STRP in [Resolution XIII.19](#) (paragraphs 28 and 29). The Standing Committee at its 57th Meeting (24-28 June 2019) designated task 1.2 with high priority.

For this task, the initial focus will be on agriculture¹ relating to crop and livestock production and include other agricultural practices where time permits. A consultant will be needed to assist the STRP with parts of this task. A detailed description of the support required from the consultant for aspects of this task is included in Annex I.

Previous Ramsar Resolutions, such as [Resolution VIII.34 on Agriculture, wetlands and water resource management](#) also called for technical information and guidance to promote sustainable agricultural practices. Several other initiatives have also addressed agriculture-wetland interactions due to the broad relevance of this issue to the Convention, Sustainable Development Goals and work programmes of the Food and Agriculture Organization (FAO) of the UN and other global organizations and International Organization Partners of the Convention. Relevant projects and publications include:

- The Guidelines on Agriculture, Wetlands and Water Resources Interactions (GAWI) project, which included a FAO-led technical report, supported by the Ramsar Convention, on *Scoping agriculture–wetland interactions: Towards a sustainable multiple-response strategy* (2008) (<http://www.fao.org/3/i0314e/i0314e00.htm>).
- Ongoing work of FAO, International Water Management Institute (IWMI) and CGIAR, such as the recent (2018) publication: *More people, more food, worse water? A global review of*

¹ For the purposes of Resolution XIII.19, the definition of agriculture includes fisheries, marine products, forestry and primary forestry products, as well as the cultivation of crops and livestock.

water pollution from agriculture (<http://www.fao.org/policy-support/resources/resources-details/en/c/1144303/>).

- *The Global Wetland Outlook* (2018) that summarised the status and trends of wetland ecosystems, the drivers of wetland degradation and responses to address those (<https://www.global-wetland-outlook.ramsar.org/outlook>).
- Global assessments of the change in wetland extent (e.g., [Davidson 2014](#))
- IPBES assessments on *Land degradation and restoration* (2018) (<https://www.ipbes.net/assessment-reports/ldr>) and the *Global assessment report on biodiversity and ecosystem services* (2019) (<https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>).
- *Millennium Ecosystem Assessment* (MA) (2005) (<https://www.millenniumassessment.org/en/index.html>).
- *Comprehensive Assessment of Water Management in Agriculture* (CA) (2007) (http://www.iwmi.cgiar.org/assessment/files_new/synthesis/Summary_SynthesisBook.pdf).

These projects have, to varying degrees, compiled and reviewed the positive and negative impacts of agricultural practices on wetlands. Consequently, it is considered important that this STRP task is framed to build on previous projects (rather than duplicate), and to ensure information produced supports Contracting Parties to develop sustainable agricultural practices to conserve wetlands.

Particular attention whilst developing these terms of reference was given to the FAO-led report on *Scoping agriculture–wetland interactions: Towards a sustainable multiple-response strategy*. This project collated 90 case studies to evaluate agriculture–wetland interactions. It applied a systematic framework to evaluate drivers, pressures, state, impacts and responses in its global review of the impact of agricultural practices on wetlands, and involved members of the STRP, IWMI, Wetlands International and other organisations. Some of the technical information the STRP is requested to collate has been already published. However, there are several critical knowledge gaps where advancement of the FAO report on GAWI (2008), and other assessments, would support Contracting Parties.

Task Description

The task will encompass three sub-tasks as follows:

- 1.2a – compile and **review both the positive and negative impacts of agricultural practices** on wetlands, including the benefits of adopting sustainable agricultural practices.
- 1.2b – **report on the change in wetland extent** associated with agricultural land conversion since the 1970s.
- 1.2c – present information for policy makers and practitioners on **how adverse impacts of agricultural practices on wetlands can be avoided (responses)**.

The consultant will assist with aspects of these sub-tasks by providing the underlying text and data (as specified in Annex I).

The specific areas of focus of the task are:

- I. *To conduct a meta-analysis of existing literature and compile case studies that will underpin a plain language summary for policy makers and practitioners (to be led by consultant) by:*
 - Providing a **summary of the current state of knowledge** on the positive and negative impacts of agricultural practices on wetlands and ‘responses’ to avoid negative impacts. In particular, primary focus will be to:

- Extract key messages, as they relate to wetlands, from existing FAO, IPBES, Intergovernmental Panel on Climate Change (IPCC), UN Convention to Combat Desertification (UNCCD) and other global and regional assessments, including from local biodiversity outlooks.
 - Characterise the agricultural types that interact with wetlands, summarising the different impacts of traditional, low intensive and more intensive agriculture, and highlighting case studies of sustainable agricultural practices.
 - Draw attention to the mechanisms/drivers of agricultural production that directly affect wetlands (e.g., decisions relating to land use change and fertiliser application, etc.) and the smart solutions for achieving food production while maintaining wetlands.
 - Consider future scenarios for global agriculture, including climate change and its interaction with wetlands.
- II. *Producing new data on agriculture-wetland interactions at Ramsar sites (to be led by consultant) by:*
- Assessing the positive and negative impact of **agricultural practices within Ramsar Sites**, based on:
 - a review of information in the Ramsar Sites Information Service (RSIS) (approx. 200+ Sites) and/or
 - a survey of randomly selected Ramsar Sites utilising the STRP network (approx. 25).
- III. *Providing a 10-year comparison of changes in agriculture and utilising the existing FAO case study database (to be led by consultant) by:*
- Re-evaluating agricultural practices from a subset of the 90 case studies that were examined in the 2008 FAO GAWI study (approx. 25), if time permits.
 - Developing a set of **criteria or guidelines** to help practitioners and policy makers define what is and what is not sustainable agriculture in relation to inland, coastal and marine wetlands.
- IV. *Providing a general indication of the proportion (percentage of area) of wetland loss that is due to agricultural intensification by:*
- Reporting on the **change in wetland extent** since the 1970s that can be attributed to agricultural land conversion based on a meta-analysis of published literature, and global databases where available (including use of data within existing platforms such as the Wetland Extent Trends (WET) Index).

There are two intended audiences for task 1.2:

- Practitioners, enabling wetland managers and agricultural practitioners to positively address agricultural-wetland interactions.
- Policy makers, supporting government agencies and the agricultural sector to promote sustainable agriculture and wise use of wetlands.

Different products, which will integrate the findings of this consultancy, will be required for these two audiences, specifically:

- A briefing note presented in style suitable for practitioners on *Sustainable agriculture and wetlands* that includes:
 - A summary of knowledge on positive and negative impacts of different types of agriculture on wetlands, including highlighting examples/case studies of sustainable agriculture (e.g., from indigenous, traditional and/or innovative practices).
 - A summary of positive (sustainable) and negative agricultural practices at Ramsar Sites, including the benefits of adopting sustainable agricultural practices.
 - Information on changes in agricultural practices observed at the FAO case studies on wetlands.
 - Summary data on the proportion of global wetland loss that is associated with agricultural land conversion.
 - Criteria for assessing what is and what is not sustainable agriculture in relation to wetlands.

- A policy brief that provides a high-level summary of:
 - The positive and negative impacts of agriculture on wetlands. Including key Ramsar messages from recent global assessments, and consideration of future agriculture-wetland scenarios.
 - Synergies with other global processes and multilateral environmental agreements addressing agriculture-environment interactions.
 - Global wetland loss associated with agricultural land conversion.
 - The responses to avoid negative impacts through promoting good agricultural practices, including drawing attention to the underlying mechanisms/drivers that: (i) facilitate ongoing wetland degradation and (ii) support shifts to good agricultural practices.

Note: the drafting of these products will be undertaken by the STRP based on the output of this consultancy and with inputs from the consultant.

Output

The consultant will be responsible for submitting a 20-page report with text and tables. Information from this report will be integrated by the STRP into the two aforementioned outputs.

Qualifications

- Excellent writing and drafting skills;
- Fluent in English;
- Knowledge of wetland ecology, natural and water resources management and agriculture;
- Ability to analyse, model and interpret data;

Number of Working Days

50 days between October 2019 and August 2020.

Work Location

Home based

Deadline for Applications:

18 October 2019

Applications

All interested applicants are encouraged to send their letter expressing interest (maximum 500 words), a sample of a previously written document/publication and a cost estimate to the Scientific and Technical Support Officer (Ms Marcela Bonells) at bonells@ramsar.org by **18 October 2019, 12.00 Midnight CET**.

Language

English

Annex I

The following steps breakdown the various stages and work needed to complete the task and a description of the work required by the consultant to support the STRP.

	Work involved	Lead	Indicative days for consultancy²	Timeline
Step 1	<p>The consultant will conduct a meta-analysis of published literature, and case studies, on the positive and negative impacts of agricultural practices on wetlands and their ecosystem services, and responses to avoid negative impacts. Including consideration of future scenarios.</p> <p>The consultant will develop a matrix of agriculture 'types' to evaluate traditional, low intensive and more intensive agriculture. Use as basis for developing criteria for what is and what is not sustainable agriculture (e.g., relating to type/level of fertiliser application, pesticide use, flow alteration, etc.).</p> <p>Information Sources: Existing reports and global assessments (e.g., FAO 2008, FAO & IWMI 2018, MA 2005), and selected case studies</p> <p>Output – draft text (and tables) for inclusion in briefing note</p>	<p>Consultant</p> <p>STRP members and observers to contribute</p> <p>Peer review at STRP meeting in March 2020 (see Step 6 below) and possible workshop (see step 7 below)</p>	15 days	October 2019- November 2019

² The anticipated estimate of time needed, but not fixed.

	Work involved	Lead	Indicative days for consultancy²	Timeline
Step 2a	<p>Review of data in the Ramsar Sites Information Service (RSIS) on agriculture-wetland interactions, including summarising the number and extent of Ramsar Sites that are impacted by agriculture, and tabulating positive and negative impacts that are identified in Ramsar Information Sheets (RISs).</p> <p>Information Sources: RSIS Database</p> <p>Output – draft text (figures/tables) for inclusion in briefing note</p>	<p>STRP task lead</p> <p>Contributing STRP members and observers</p> <p>Secretariat to provide RSIS data</p> <p>Peer review at STRP meeting (see step 6 below) and at possible workshop (see step 7 below)</p>	<i>No inputs from consultant required</i>	October 2019-December 2019
Step 2b	<p>The consultant will undertake an assessment of positive and negative agricultural practices at approx. 25 Ramsar Sites through an online survey or via the STRP network (e.g., through case studies)</p> <p>Consultant to lead with direct input from STRP members/observers</p> <p>Output – draft text (figures/tables) for inclusion in briefing note</p>	<p>Consultant</p> <p>STRP members and observers to contribute</p> <p>Peer review at STRP meeting (see step 6 below) and at possible workshop (step 7 below)</p>	12 days	October 2019-December 2019
Step 3	<p>Complete a review/survey of agricultural practices from a subset of the 90 case studies that were examined in the 2008 FAO study (approx. 25). To provide a 10-year comparison of changes in agricultural practices.</p>	<p>Consultant</p> <p>STRP members and observers to contribute</p> <p>Peer review at possible workshop (see step 7 below)</p>	12 days	October 2019-January 2020

	Work involved	Lead	Indicative days for consultancy ²	Timeline
	<p>Information sources: Select 25 sites from the existing (2008) GAWI case study database. Assess changes in agricultural practices at these sites from 2008-2019.</p> <p>Output – draft text (figures/tables) for inclusion in briefing note</p>			
Step 4	<p>Meta-analysis of published literature, and global databases where available (e.g., WET Index), of the change in wetland extent since the 1970s that can be attributed to agricultural land conversion.</p> <p>Information sources: global assessments of change in wetland extent (e.g., since 1990, Davidson 2014, WET Index, etc.). Regional, national and river basin scale data on wetland loss that is attributed to agricultural land use change (e.g. Robertson 2019, Gong <i>et al.</i> 2010, Clare and Creed 2014).</p> <p>Output – draft text outlining data sources and results (table) for inclusion in briefing note</p>	<p><i>Possibly WCMC (STRP Observer)</i></p> <p>Contributing STRP members and observers</p> <p>Peer review at STRP meeting in March 2020</p>	<p><i>No inputs from consultant required</i></p>	<p>September-March 2020</p>
Step 5	<p>Briefing note – First draft</p> <p><i>Includes consultant time to ensure information acquired is integrated into report</i></p>	<p>Lead authors</p> <p>Contributing authors: <i>to be determined</i></p>	<p>7 days</p>	<p>Circulate to STRP for input/review at end January 2020</p>
Step 6	<p>STRP meeting (STRP 23) (16-22 March 2020)</p> <p>Review and further development of briefing note</p>		<p>0</p>	<p>16-20 March 2020</p>

	Work involved	Lead	Indicative days for consultancy ²	Timeline
Step 7	Time permitting and if necessary, a workshop ³ might be organised 3-4 day duration (location TBD) Workshop purpose - to review and progress Steps 1-5; progress drafting of briefing note, and; to identify items suitable for a future edition of the GWO	Workshop participants to potentially include Consultant, partner organisations and STRP representatives	3-4	TBC
Step 8	Briefing note – Complete draft		0	May 2020
Step 9	Briefing note – Finalised		0	July 2020
Step 10	Policy brief – Complete draft	Lead authors Contributing authors: <i>to be determined</i>	0	July 2020
Step 11	Policy brief - Final		0	August 2020

³ If needed and time permitting, a writing workshop may be organised (location to be confirmed). In that case, any incurred travel expenses to the consultant will be covered under this consultancy.