Guidance on information on national wetland extent, to be provided in Target 8 "National Wetlands Inventory" of the Ramsar National Report for COP14

Background

Since 1996, through the adoption of decisions related to the development of inventories (Resolutions VI.12, VII.20 and VIII.6), Contracting Parties have recognized the need to progressively develop national knowledge of their wetlands. In 2015, Parties decided to further build on the information accumulated and to start reporting on national wetland extent as a contribution to the achievement of the Sustainable Development Goals (SDGs), further improving the basis for monitoring the status of wetlands.

As requested, in the National Report Format for COP13, indicators 8.1 to 8.6 make reference to a number of questions related to inventories of wetlands. As for COP13, Contracting Parties are requested in their National Reports for COP14 to provide information on "wetland extent", which is especially relevant to SDG 6. The provision of data on inland wetlands is of particular relevance to SDG Indicator 6.6.1, "Change in the extent of water-related ecosystems over time".

In accordance with paragraphs 39 and 40 of Resolution XIII.7 on *Enhancing the Convention´s visibility and synergies with other multilateral environmental agreements and other international institutions*, the indicator on wetland extent (8.6) in target 8 in the National Report Format has been adjusted to reflect the use of wetland inventories as the key source of information for Sustainable Development Goal (SDG) 6.6.1, of which the Ramsar Convention is a co-custodian. Besides, a question has been added to identify Contracting Parties' needs to develop their national wetland inventories.

In order to support Contracting Parties in the submission of information for the above indicator, the Secretariat is providing the present guidelines.

Using and sharing existing national wetland inventories

This additional guidance recognizes that Contracting Parties have increasing capacity to develop inventories in accordance with Ramsar Convention Resolutions VI.12, VII.20 and VIII.6. By 2018, 61 Contracting Parties had already prepared such inventories and some others are currently working on developing inventories.

Parties are encouraged to make their national inventories available to the Ramsar Convention Secretariat either through a link to an active webpage or through a reference to a publication, to allow the inventories to be published on the website of the Convention. Inventories (and any updates) should be dated to ensure that they can be compared over time.

Definitions for reporting wetland extent

In the National Reports for 2018, existing inventories (either complete or partial) should provide the basis for reporting on indicator 8.6 on wetland extent, using the following definitions:

- **"extent of wetlands"**

This term can be defined as the surface area of wetlands. It is measured in km^2 or hectares. It is expected that the surface reported corresponds to the 2017 situation; if not, the reference year should be indicated.

- **"change in the extent of wetlands"**

This term refers to the percentage change in area of wetlands from a baseline reference. For reporting such change, the previous extent, if known, and the period over which the change has taken place should be specified.

- **the Ramsar definition of "wetlands"**

For each Contracting Party, it is important to reach an understanding at the national level of how the Ramsar Convention's definition of "wetlands" is to be interpreted. The Ramsar definition is very broad, reflecting the purpose and global coverage of the Convention:

In accordance with Article 1.1 of the Convention,
"*Wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*".

In addition, in accordance with Article 2.1, Ramsar Sites
"*may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands*".

- **the Ramsar system of classifying wetland types**

Many national definitions and classifications of "wetlands" are in use. They have been developed in response to different national needs and take into account the main biophysical features (generally vegetation, landform and water regime, and sometimes also water chemistry such as salinity) and the variety and size of wetlands in the locality or region being considered.

The Ramsar Classification System for Wetland Types, adopted at COP4 in 1990, and amended at COP6 in 1996 (Resolution VI.5) and at COP7 in 1999 (Resolution VII.11) has value as a basic internationally applicable habitat description for sites designated for the Ramsar List of Wetlands of International Importance.

The System (see **Annex 1** below) describes the types of wetland covered by each of the wetland type codes. Note that the wetland types are grouped in three major categories: marine/coastal, inland, and human-made wetlands. Within a single Ramsar Site or other wetland, there may be wetland types from two or more of these categories, particularly if the wetland is large.

For the purpose of reporting, it is recommended that Parties use the three major categories. The minimum information that should be provided is the total area of wetlands for each of these three categories.

An example of a response on indicator 8.6 in the National Report is at **Annex 2.** The completed template (and if necessary additional sheets) can then be added as "additional information" to the online reporting system or to the word format.

Additional sources of information

Ramsar Handbooks: Handbook 13 *Inventory, assessment and monitoring*, and Handbook 15 *Wetland Inventory* http://www.ramsar.org/resources/ramsar-handbooks

Resolution VIII.6 *A Ramsar Framework for Wetland Inventory*
http://www.ramsar.org/document/resolution-viii6-a-ramsar-framework-for-wetland-inventory

Resolution VI.12 *National Wetland Inventories and candidate sites for listing*
http://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_vi.12e.pdf

Resolution VII.20 *Priorities for wetland inventory*
http://www.ramsar.org/sites/default/files/documents/library/key_res_vii.20e.pdf

Resolution IX.1 *Additional scientific and technical guidance for implementing the Ramsar wise use concept Annex E. An Integrated Framework for wetland inventory assessment and monitoring*
http://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_ix_01_annexe_e.pdf

Resolution X.15 *Describing the ecological character of wetlands and data needs and formats for core inventory: harmonized scientific and technical guidance*
http://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_x_15_e.pdf

Ramsar Technical Report 2. Low-cost GIS software and data for wetland inventory, assessment & monitoring.
https://www.ramsar.org/sites/default/files/documents/library/lib_rtr02.pdf

Ramsar Technical Report 4.A Framework for a Wetland Inventory Metadatabase.
https://www.ramsar.org/sites/default/files/documents/pdf/lib/lib_rtr04.pdf

The use of Earth Observation for wetland inventory, assessment and monitoring. Ramsar Technical Report 10.
https://www.ramsar.org/sites/default/files/documents/library/rtr10_earth_observation_e.pdf

List of Annexes

Annex 1. Ramsar Wetland Classification
Annex 2. Example of a response to indicator 8.6 in the national report

Annex 1
Ramsar Wetland Classification

The codes are based upon the Ramsar Classification System for Wetland Types, as approved by the Conference of the Contracting Parties in Recommendation 4.7 and amended by Resolutions VI.5 and VII.11.

To assist in identification of the correct Wetland Types, the Secretariat has provided below tabulations of some of the characteristics of each Wetland Type, for Marine/Coastal Wetlands and Inland Wetlands.

Marine/Coastal Wetlands

A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.
B -- **Marine subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.
C -- **Coral reefs**.
D -- **Rocky marine shores**; includes rocky offshore islands, sea cliffs.
E -- **Sand, shingle or pebble shores**; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.
F -- **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.
G -- **Intertidal mud, sand or salt flats**.
H -- **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
I -- **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
J -- **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.
K -- **Coastal freshwater lagoons**; includes freshwater delta lagoons.
Zk(a) – **Karst and other subterranean hydrological systems**, marine/coastal

Tabulations of Wetland Type characteristics, Marine / Coastal Wetlands:

Saline water	Permanent	< 6 m deep	A
		Underwater vegetation	B
		Coral reefs	C
	Shores	Rocky	D
		Sand, shingle or pebble	E
Saline or brackish water	Intertidal	Flats (mud, sand or salt)	G
		Marshes	H
		Forested	I
	Lagoons		J
	Estuarine waters		F
Saline, brackish or fresh water	Subterranean		Zk(a)
Fresh water	Lagoons		K

Inland Wetlands

L -- **Permanent inland deltas**.
M -- **Permanent rivers/streams/creeks**; includes waterfalls.
N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.
O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.
Q -- **Permanent saline/brackish/alkaline lakes**.
R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats**.
Sp -- **Permanent saline/brackish/alkaline marshes/pools**.
Ss -- **Seasonal/intermittent saline/brackish/alkaline marshes/pools**.
Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.
Ts -- **Seasonal/intermittent freshwater marshes/pools on inorganic soils**; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.
U -- **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.
Va -- **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.
Vt -- **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.
W -- **Shrub-dominated wetlands**; includes shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.
Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.
Xp -- **Forested peatlands**; peatswamp forests.
Y -- **Freshwater springs; oases**.
Zg -- **Geothermal wetlands.**
Zk(b) – **Karst and other subterranean hydrological systems**, inland.

Note: "**floodplain**" is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

Tabulations of Wetland Type characteristics, Inland Wetlands:

Fresh water	Flowing water	Permanent	Rivers, streams, creeks	M
			Deltas	L
			Springs, oases	Y
		Seasonal/intermittent	Rivers, streams, creeks	N
	Lakes and pools	Permanent	> 8 ha	O
			< 8 ha	Tp
		Seasonal/intermittent	> 8 ha	P
			< 8 ha	Ts
	Marshes on inorganic soils	Permanent	Herb-dominated	Tp
		Permanent/ Seasonal/intermittent	Shrub-dominated	W
			Tree-dominated	Xf
		Seasonal/intermittent	Herb-dominated	Ts

	Marshes on peat soils	Permanent	Non-forested	U
			Forested	Xp
	Marshes on inorganic or peat soils	High altitude (alpine)		Va
		Tundra		Vt
Saline, brackish or alkaline water	Lakes	Permanent		Q
		Seasonal/intermittent		R
	Marshes & pools	Permanent		Sp
		Seasonal/intermittent		Ss
Fresh, saline, brackish or alkaline water	Geothermal			Zg
	Subterranean			Zk(b)

Human-made wetlands

1 --**Aquaculture** (e.g. fish/shrimp) **ponds.**
2 --**Ponds**; includes farm ponds, stock ponds, small tanks (generally below 8 ha).
3 --**Irrigated land**; includes irrigation channels and rice fields.
4 --**Seasonally flooded agricultural land** (including intensively managed or grazed wet meadow or pasture).
5 --**Salt exploitation sites**; salt pans, salines, etc.
6 --**Water storage areas**; reservoirs/barrages/dams/impoundments (generally over 8 ha).
7 --**Excavations**; gravel/brick/clay pits; borrow pits, mining pools.
8 --**Wastewater treatment areas**; sewage farms, settling ponds, oxidation basins, etc.
9 --**Canals and drainage channels, ditches.**
Zk(c) – **Karst and other subterranean hydrological systems**, human-made

Annex 2
Example of a response to indicator 8.6 in the national report

Based on the national wetland inventory in country x in 2017, wetlands cover about 2,221,000 ha (22,210 Km^2) of the country´s land area. The % of change is a 10.12 % decrease of the estimated extent of 2,471,000 ha (24,710 Km^2) in 2006.

8.6	Based upon the National Wetland Inventory if available please provide a figure in square kilometres for the extent of wetlands (according to the Ramsar definition) for the year 2020 and provide the relevant disaggregated information in the box below. This Information will also be used to report on SDG 6, Target 6.6, Indicator 6.6.1, for which the Ramsar Convention is a co-custodian.	22,210 Km^2 E= # Km^2 ; F=Less than # Km^2 ; G=More than # Km^2; X= Unknown

8.6. According to the Ramsar definition and classification of wetlands, the disaggregated information on wetland extent is as follows:

Area by type of wetland				Total area by category of wetland
Marine/Coastal	e.g Coral Reefs: 3,500 Km^2	e.g Estuarine waters 2,720 Km^2	e.g Coastal brackish/saline lagoons: 4,200 Km^2	10,410
Inland	e.g Permanent freshwater marshes/swamps: 3,500 Km^2	e.g Non-forested peatlands (includes shrub or open bogs, swamps, fens): 3,800 Km^2	e.g Permanent freshwater lakes: 4,500 Km^2	11,800
Human-made	0	0	0	
Total				22,210 Km^2
Date of the inventory: 2006 **Reference or link:**				

Note:
The minimum information that should be provided is the total area of wetlands for each of the three major categories; “marine/coastal”, “inland” and “human-made”. The above template can be used
If the data on inventories are partial or not complete, use the information that is available.
Additional information: If the information is available please indicate the % of change in the extent of wetlands over the last three years. Please note: For the % of change in the extent of wetlands, if the period of data covers more than three years, provide the available information, and indicate the period of the change.
The % of change in the extent of wetlands is 10.12%