



Supplement of

Hydrological threats to riparian wetlands of international importance – a global quantitative and qualitative analysis

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This supplementary material contains the following information:

S1 – A detailed list of all wetlands analyzed in the study

S2 – Detailed results for each analyzed wetland

S3 – Changes in overbank flows under each of the five applied GCM projections

Supplementary material (S1)

In the paper, we exemplify the proposed screening tool for a selected sample of riparian wetlands. We selected the wetlands based on two criteria: (i) international importance of the wetland (i.e. listed under the Ramsar Convention) and (ii) main source of hydrological recharge is lateral overspill of adjacent rivers (i.e. fluvio-genic wetlands). Altogether, 93 sites were selected ranging from 5 to 55374 km² in size. They are located in 48 different countries and 47 different river basins. A detailed list of all analyzed wetlands is provided in Table S1.

Table S1. Detailed list of riparian wetlands considered in the study

ID	Wetland name	Country	Ramsar Ref	Area [ha]
1	Peace-Athabasca Delta	Canada	4CA007	321,300
2	Lac Saint Pierre	Canada	4CA036	11,952
3	The Emiquon Complex	USA	4US033	5,729
4	Cache-Lower White Rivers	USA	4US008	99,166
5	La Segua	Ecuador	6EC005	1,836
6	Mamiraua	Brazil	6BR003	1,124,000
7	Ilha do Bananal	Brazil	6BR004	562,312
8	Rio Yata	Bolivia	6BO011	2,813,229
9	Rio Blanco	Bolivia	6BO009	2,404,916
10	Rio Matos	Bolivia	6BO010	1,729,788
11	Pantanal Matogrossense	Brazil	6BR001	135,000
12	Humedales Chaco	Argentina	6AR013	508,000
13	Jaaukanigas	Argentina	6AR009	492,000
14	River Luiro Mires	Finland	3FI039	12,345
15	Matsalu Nature Reserve	Estonia	3EE001	48,610
16	River Spey - Insh Marshes	United Kingdom	3UK106	1,159
17	Firth of Tay and Eden Estuary	United Kingdom	3UK144	6,918
18	Helgean	Sweden	3SE003	8,050
19	Lower Derwent Valley	United Kingdom	3UK023	915
20	Elbauen, Schnackenburg-Lauenburg	Germany	3DE005	7,560
21	Unteres Odertal, Schwedt	Germany	3DE022	5,400
22	Niederung der unteren Havel	Germany	3DE021	8,920
23	Nene Washes	United Kingdom	3UK059	1,517
24	Desna River Floodplains	Ukraine	3UA028	4,270
25	Mid-Pripyat State Landscape Zakaznik	Belarus	3BY002	90,447
26	Prypiat River Floodplains	Ukraine	3UA021	12,000
27	Unterer Niederrhein	Germany	3DE028	25,000
28	Stokhid River Floodplains	Ukraine	3UA022	10,000
29	Rheinauen zwischen Eltville und Bingen	Germany	3DE009	566
30	Litovelske Pomoravi	Czech Republic	3CZ008	5,122
31	Donaauauen & Donaumoos	Germany	3DE011	8,000
32	Felsö-Tisza (Upper Tisza)	Hungary	3HU023	22,311
33	Moravske luhy (Morava floodplains)	Slovakia	3SK005	5,380
34	Tisa River	Slovakia	3SK014	735
35	Donau-March-Thaya-Auen	Austria	3AT002	36,090
36	Ipoly Valley	Hungary	3HU021	2,227
37	Dunajske luhy (Danube floodplains)	Slovakia	3SK006	14,488
38	Grande Briere	France	3FR013	19,000
39	Raba valley (Raba-völgy)	Hungary	3HU025	10,961
40	Upper Drava River	Austria	3AT023	1,029

ID	Wetland name	Country	Ramsar Ref	Area [ha]
41	Dnipro River Delta	Ukraine	3UA009	26,000
42	Lower Dniester (Nistrul de Jos)	Moldova	3MD002	60,000
43	Dniester-Turunchuk Crossrivers Area	Ukraine	3UA006	76,000
44	Gemenc	Hungary	3HU015	16,873
45	Mures Floodplain	Romania	3RO004	17,166
46	Nature Park Kopacki rit	Croatia	3HR002	23,894
47	Lonjsko polje and Mokro polje	Croatia	3HR003	51,218
48	Danube Delta	Romania	3RO001	647,000
49	Obedska Bara	Serbia	3RS001	17,501
50	Canaralele de la Horsova	Romania	3RO016	7,406
51	Danube Islands-Bugeac-lortmac	Romania	3RO017	82,832
52	Belene Islands Complex	Bulgaria	3BG006	18,330
53	Camargue	France	3FR001	85,000
54	Neretva River Delta	Croatia	3HR004	12,742
55	Paul de Boquilobo	Portugal	3PT005	529
56	Donana	Spain	3ES001	111,646
57	Sebkhet Kelbia	Tunisia	1TN016	8,732
58	Embouchure de la Moulouya	Morocco	1MA015	3,000
59	Delta Interieur du Niger	Mali	1ML001	4,119,500
60	Lake Chad Wetlands in Nigeria	Nigeria	1NG002	607,354
61	Baturiya Wetland	Nigeria	1NG004	101,095
62	Zone humide du moyen Niger II	Niger	1NE007	65,850
63	Plaines d'inondation des Bahr Aouk et Salamat	Chad	1TD005	4,922,000
64	Lower Kaduna-Middle Niger Floodplain	Nigeria	1NG007	229,054
65	Tana River Delta	Kenya	1KE006	163,600
66	Kilombero Valley Floodplain	Tanzania	1TZ003	796,735
67	Luangwa Flood Plains	Zambia	1ZM005	250,000
68	Zambezi Floodplains	Zambia	1ZM007	900,000
69	Marromeu Complex (Zambezi Delta)	Mozambique	1MZ001	688,000
70	Okavango Delta System	Botswana	1BW001	5,537,400
71	Ndumo Game Reserve	South Africa	1ZA014	10,117
72	Lower Dvobje	Russia	2RU013	540,000
73	Oka & Pra River Floodplains	Russia	3RU007	161,542
74	Volga Delta	Russia	3RU002	800,000
75	Shandong Yellow River Delta Wetland	China	2CN045	95,950
76	Lower part of Pyandj River	Tajikistan	2TJ003	-
77	Hawizeh Marsh (Haur Al-Hawizeh)	Iraq	2IQ001	137,700
78	Shadegan Marshes & mudflats of Khor-al Amaya & Khor Musa	Iran	2IR006	400,000
79	Dong dongting hu	China	2CN004	190,000
80	Sundarbans Reserved Forest	Bangladesh	2BD001	601,700
81	Middle Stretches of the Mekong River	Cambodia	2KH003	14,600
82	Boeng Chhmar	Cambodia	2KH001	28,000
83	Bau Sau Wetlands and Seasonal Floodplains	Viet Nam	2VN002	13,759
84	Tram Chim National Park	Viet Nam	2VN004	7,313
85	Lower Kinabatangan-Segama Wetland	Malaysia	2MY006	78,803
86	Danau Sentarum	Indonesia	2ID002	80,000
87	Kakadu National Park	Australia	5AU002	1,979,766
88	Ord River floodplain	Australia	5AU031	141,453
89	Gwydir Wetlands	Australia	5AU051	823
90	Macquarie Marshes	Australia	5AU027	19,850
91	Riverland	Australia	5AU029	30,640
92	Banrock Station Wetland Complex	Australia	5AU059	1,375
93	Barmah Forest	Australia	5AU014	28,515

Supplementary material (S2)

We assessed hydrological threats by five different indicators in the paper. The quantitative part of the assessment is based on the flood pulse concept (Junk et al., 1989, Tockner et al., 2000) and considers the reduction in flood volume (i.e. all daily flows above bankfull) due to (i) current water management and (ii) climate change in the 2050s. In the qualitative assessment, we evaluated the potential for future flow modifications by the number of new dam initiatives taking currently part in the upstream area of each wetland. Further qualitative results address for each site the capacity to act by evaluating whether upstream water resource availability and the existing institutional framework could support the implementation of conservation measures. Table S2 provides the detailed results of the multi-indicator assessment described in Chapter 3 of the paper.

Table S2. Detailed results of the multi-indicator assessment for the 93 selected riparian wetlands. Numbers provided in brackets represent the number of month with water scarcity upstream (column 7). In column 8, transboundary and non-transboundary upstream areas need to be distinguished. For wetlands with a transboundary upstream area, a score ranging from zero to six was calculated to describe formal institutional capacity. For wetlands with a non-transboundary upstream area, only presence (=yes) or absence (=no) of legal provisions or official recommendation to establish eFlows are considered.

ID	Wetland name	Ramsar Reference	Flood volume reduction water management	Flood volume reduction climate change 2050s	Potential impact by new dam initiatives	Water availability for ecol. allocations	Formal institutional capacity
1	Peace-Athabasca Delta	4CA007	seriously	increase (low)	none	high (0)	no
2	Lac Saint-Pierre	4CA036	significantly	increase (low)	none	high (0)	high
3	The Emiquon Complex	4US033	slightly	increase (low)	none	med (2)	yes
4	Cache-Lower White Rivers	4US008	seriously	increase (low)	none	med (4)	no
5	La Segua	6EC005	seriously	increase (high)	none	med (4)	yes
6	Mamiraua	6BR003	slightly	increase (low)	high	high (0)	med
7	Ilha do Bananal	6BR004	slightly	slightly	med	high (0)	yes
8	Rio Yata	6BO011	slightly	seriously	none	high (0)	no
9	Rio Blanco	6BO009	slightly	seriously	none	high (0)	no
10	Rio Matos	6BO010	slightly	slightly	med	high (0)	no
11	Pantanal Matogrossense	6BR001	slightly	moderately	med	high (0)	yes
12	Humedales Chaco	6AR013	seriously	slightly	high	high (0)	med
13	Jaaukanigas	6AR009	seriously	slightly	high	high (0)	med
14	River Luiro Mires	3FI039	seriously	slightly	none	high (0)	no
15	Matsalu Nature Reserve	3EE001	slightly	moderately	none	high (0)	yes
16	River Spey - Insh Marshes	3UK106	slightly	increase (high)	none	high (0)	yes
17	Firth of Tay and Eden Estuary	3UK144	slightly	increase (high)	none	high (0)	yes
18	Helgean	3SE003	slightly	increase (high)	none	high (1)	no
19	Lower Derwent Valley	3UK023	slightly	moderately	none	high (1)	yes
20	Elbauen, Schnackenburg-Lauenburg	3DE005	significantly	moderately	none	high (0)	high
21	Unteres Odertal, Schwedt	3DE022	slightly	slightly	none	high (0)	high

ID	Wetland name	Ramsar Reference	Flood volume reduction water management	Flood volume reduction climate change 2050s	Potential impact by new dam initiatives	Water availability for ecol. allocations	Formal institutional capacity
22	Niederung der unteren Havel	3DE021	slightly	increase (low)	none	high (0)	yes
23	Nene Washes	3UK059	slightly	moderately	none	med (4)	yes
24	Desna River Floodplains	3UA028	slightly	significantly	none	high (0)	low
25	Mid-Pripyat State Landscape Zakaznik	3BY002	slightly	slightly	none	high (0)	low
26	Prypiat River Floodplains	3UA021	slightly	significantly	none	high (0)	no
27	Unterer Niederrhein	3DE028	slightly	increase (low)	none	high (0)	high
28	Stokhid River Floodplains	3UA022	slightly	moderately	none	high (0)	no
29	Rheinauen zwischen Eltville und Bingen	3DE009	slightly	seriously	none	high (0)	high
30	Litovelske Pomoravi	3CZ008	slightly	slightly	none	high (0)	yes
31	Donauauen & Donaumoos	3DE011	slightly	moderately	none	high (0)	yes
32	Felsö-Tisza (Upper Tisza)	3HU023	slightly	seriously	none	high (0)	high
33	Moravske luhy (Morava floodplains)	3SK005	seriously	moderately	none	med (3)	high
34	Tisa River	3SK014	slightly	seriously	none	high (0)	high
35	Donau-March-Thaya-Auen	3AT002	significantly	increase (high)	none	high (0)	high
36	Ipoly Valley	3HU021	slightly	seriously	none	med (4)	high
37	Dunajské luhy (Danube floodplains)	3SK006	significantly	increase (high)	none	high (0)	high
38	Grande Briere	3FR013	slightly	increase (low)	none	med (4)	yes
39	Raba valley (Raba-völgy)	3HU025	slightly	increase (high)	none	high (0)	high
40	Upper Drava River	3AT023	slightly	increase (high)	none	high (0)	high
41	Dnipro River Delta	3UA009	seriously	slightly	none	med (3)	low
42	Lower Dniester (Nistru de Jos)	3MD002	seriously	seriously	none	med (3)	med
43	Dniester-Turunchuk Crossrivers Area	3UA006	seriously	seriously	none	med (4)	med
44	Gemenc	3HU015	moderately	increase (high)	none	high (0)	high
45	Mures Floodplain	3RO004	slightly	seriously	none	high (0)	yes
46	Nature Park Kopacki rit	3HR002	significantly	increase (high)	med	high (0)	high
47	Lonjsko polje & Mokro polje	3HR003	slightly	increase (low)	high	high (0)	high
48	Danube Delta	3RO001	moderately	increase (low)	high	med (2)	high
49	Obedska Bara	3RS001	moderately	increase (high)	high	high (0)	high
50	Canaralele de la Harsova	3RO016	moderately	increase (low)	high	high (1)	high
51	Danube Islands-Bugeac-Iortmac	3RO017	moderately	increase (low)	high	high (1)	high
52	Belene Islands Complex	3BG006	moderately	increase (low)	high	high (0)	high
53	Camargue	3FR001	moderately	increase (low)	none	med (2)	high
54	Neretva River Delta	3HR004	moderately	increase (high)	med	high (0)	high
55	Paul de Boquilobo	3PT005	seriously	slightly	none	med (5)	med
56	Donana	3ES001	seriously	significantly	none	med (5)	yes
57	Sebkhet Kelbia	1TN016	significantly	increase (low)	none	low (7)	no
58	Embouchure de la Moulouya	1MA015	seriously	slightly	none	low (6)	no
59	Delta Interieur du Niger	1ML001	moderately	increase (low)	med	med (4)	med

ID	Wetland name	Ramsar Reference	Flood volume reduction water management	Flood volume reduction climate change 2050s	Potential impact by new dam initiatives	Water availability for ecol. allocations	Formal institutional capacity
60	Lake Chad Wetlands in Nigeria	1NG002	moderately	increase (low)	none	low (11)	med
61	Baturiya Wetland	1NG004	seriously	increase (high)	none	med (4)	no
62	Zone humide du moyen Niger II	1NE007	slightly	increase (low)	med	high (1)	med
63	Plaines d'inondation des Bahr Aouk et Salamat	1TD005	slightly	slightly	none	high (0)	med
64	Lower Kaduna-Middle Niger Floodplain	1NG007	seriously	increase (high)	med	high (0)	med
65	Tana River Delta	1KE006	moderately	increase (high)	none	low (7)	yes
66	Kilombero Valley Floodplain	1TZ003	slightly	increase (high)	med	high (0)	yes
67	Luangwa Flood Plains	1ZM005	slightly	increase (low)	none	high (0)	no
68	Zambezi Floodplains	1ZM007	slightly	slightly	med	high (0)	med
69	Marromeu Complex (Zambezi Delta)	1MZ001	seriously	slightly	med	high (0)	high
70	Okavango Delta System	1BW001	slightly	increase (low)	med	high (0)	med
71	Ndumo Game Reserve	1ZA014	slightly	increase (low)	none	high (0)	high
72	Lower Dvobje	2RU013	slightly	increase (low)	med	high (0)	low
73	Oka & Pra River Floodplains	3RU007	slightly	seriously	none	high (0)	no
74	Volga Delta	3RU002	seriously	seriously	none	high (0)	no
75	Shandong Yellow River Delta Wetland	2CN045	seriously	increase (low)	high	low (6)	yes
76	Lower part of Pyandj River	2TJ003	slightly	increase (high)	none	med (2)	med
77	Hawizeh Marsh (Haur Al-Hawizeh)	2IQ001	seriously	moderately	med	low (7)	med
78	Shadegan Marshes & mudflats of Khor-al Amaya & Khor Musa	2IR006	seriously	increase (high)	med	low (6)	no
79	Dong dongting hu	2CN004	seriously	increase (high)	high	high (0)	yes
80	Sundarbans Reserved Forest	2BD001	moderately	increase (high)	high	med (5)	high
81	Middle Stretches of the Mekong River	2KH003	significantly	increase (high)	high	high (0)	med
82	Boeng Chhmar	2KH001	slightly	increase (high)	none	med (4)	no
83	Bau Sau Wetlands and Seasonal Floodplains	2VN002	slightly	increase (high)	med	high (0)	yes
84	Tram Chim National Park	2VN004	moderately	increase (low)	high	high (0)	high
85	Lower Kinabatangan-Segama Wetland	2MY006	slightly	increase (high)	none	high (0)	no
86	Danau Sentarum	2ID002	slightly	increase (low)	none	high (0)	no
87	Kakadu National Park	5AU002	slightly	increase (high)	none	high (0)	yes
88	Ord River floodplain	5AU031	seriously	increase (high)	none	med (3)	yes
89	Gwydir Wetlands	5AU051	seriously	significantly	none	low (7)	yes
90	Macquarie Marshes	5AU027	seriously	increase (high)	none	low (8)	yes
91	Riverland	5AU029	seriously	increase (low)	none	low (9)	yes
92	Banrock Station Wetland Complex	5AU059	seriously	increase (low)	none	low (10)	yes
93	Barmah Forest	5AU014	seriously	increase (high)	none	med (5)	yes

Supplementary material (S3)

In the paper, we present the impact of climate change on overbank flows for the 2050s represented as ensemble median. Table S3 provides the results for each single GCM projection and thus shows the uncertainty induced by the selection of different GCMs. All five GCMs, namely GFDL-ESM2M, HadGEM2-ES, IPSL-CM5A-LR, MIROC-ESM-CHEM, and NorESM1-M, were combined with a Representative Concentration Pathway leading to a radiative forcing of 6.0 W/m² (RCP6.0).

Table S3. Change in flood volume for selected riparian wetlands as a consequence of the solely effect of climate change in the 2050s presented for 5 different GCMs plus ensemble median.

ID	Wetland name	Ramsar Reference	Flood vol. reduction GFDL, 2050s	Flood vol. reduction HadGEM, 2050s	Flood vol. reduction IPSL, 2050s	Flood vol. reduction MIROC, 2050s	Flood vol. reduction NorESM, 2050s	Flood vol. reduction Ens. median, 2050s
1	Peace-Athabasca Delta	4CA007	increase (low)	seriously	significantly	increase (high)	increase (high)	increase (low)
2	Lac Saint Pierre	4CA036	increase (high)	slightly	increase (high)	increase (low)	increase (low)	increase (low)
3	The Emiquon Complex	4US033	increase (low)	increase (high)	increase (low)	increase (low)	seriously	increase (low)
4	Cache-Lower White Rivers	4US008	increase (low)	increase (low)	increase (low)	slightly	significantly	increase (low)
5	La Segua	6EC005	increase (high)	increase (high)	increase (high)	slightly	increase (high)	increase (high)
6	Mamiraua	6BR003	slightly	increase (high)	increase (low)	increase (low)	increase (high)	increase (low)
7	Ilha do Bananal	6BR004	significantly	slightly	increase (high)	seriously	slightly	slightly
8	Rio Yata	6BO011	seriously	seriously	increase (high)	seriously	increase (high)	seriously
9	Rio Blanco	6BO009	moderately	seriously	seriously	seriously	increase (high)	seriously
10	Rio Matos	6BO010	slightly	increase (high)	increase (low)	slightly	slightly	slightly
11	Pantanal Matogrossense	6BR001	seriously	moderately	slightly	seriously	increase (low)	moderately
12	Humedales Chaco	6AR013	significantly	increase (high)	increase (high)	significantly	slightly	slightly
13	Jaaukanigas	6AR009	significantly	increase (high)	increase (high)	significantly	slightly	slightly
14	River Luiro Mires	3FI039	increase (high)	seriously	seriously	increase (high)	slightly	slightly
15	Matsalu Nature Reserve	3EE001	seriously	slightly	increase (high)	moderately	seriously	moderately
16	River Spey - Insh Marshes	3UK106	increase (high)	increase (high)	seriously	increase (high)	seriously	increase (high)
17	Firth of Tay and Eden Estuary	3UK144	slightly	increase (high)	seriously	increase (high)	increase (high)	increase (high)
18	Helgean	3SE003	increase (high)	increase (high)	increase (high)	moderately	seriously	increase (high)
19	Lower Derwent Valley	3UK023	moderately	significantly	increase (low)	moderately	moderately	moderately
20	Elbauen, Schnackenburg-Lauenburg	3DE005	moderately	slightly	increase (low)	seriously	moderately	moderately
21	Unteres Odertal, Schwedt	3DE022	slightly	seriously	increase (high)	seriously	increase (low)	slightly
22	Niederung der unteren Havel	3DE021	increase (high)	moderately	increase (low)	increase (high)	slightly	increase (low)
23	Nene Washes	3UK059	moderately	moderately	moderately	moderately	moderately	moderately
24	Desna River Floodplains	3UA028	moderately	seriously	significantly	seriously	slightly	significantly
25	Mid-Pripyat State Landscape Zakaznik	3BY002	slightly	seriously	increase (low)	seriously	slightly	slightly

26	Prypiat River Floodplains	3UA021	slightly	seriously	increase (low)	seriously	significantly	significantly
27	Unterer Niederrhein	3DE028	seriously	increase (high)	seriously	increase (low)	increase (low)	increase (low)
28	Stokhid River Floodplains	3UA022	slightly	seriously	increase (high)	seriously	moderately	moderately
29	Rheinauen zwischen Eltville und Bingen	3DE009	seriously	increase (high)	seriously	increase (high)	seriously	seriously
30	Litovelske Pomoravi	3CZ008	increase (low)	increase (low)	slightly	seriously	slightly	slightly
31	Donauauen & Donaumoos	3DE011	increase (high)	increase (high)	moderately	seriously	seriously	moderately
32	Felsö-Tisza (Upper Tisza)	3HU023	seriously	seriously	moderately	seriously	seriously	seriously
33	Moravske luhy (Morava floodplains)	3SK005	moderately	moderately	increase (high)	seriously	moderately	moderately
34	Tisa River	3SK014	seriously	seriously	moderately	seriously	seriously	seriously
35	Donau-March-Thaya-Auen	3AT002	increase (high)	increase (high)	increase (high)	increase (low)	seriously	increase (high)
36	Ipoly Valley	3HU021	seriously	seriously	increase (high)	seriously	seriously	seriously
37	Dunajske luhy (Danube floodplains)	3SK006	increase (high)	increase (high)	increase (high)	increase (low)	seriously	increase (high)
38	Grande Briere	3FR013	significantly	increase (low)	increase (high)	significantly	increase (high)	increase (low)
39	Raba valley (Raba-völgy)	3HU025	increase (low)	increase (high)	increase (high)	increase (high)	seriously	increase (high)
40	Upper Drava River	3AT023	increase (high)	increase (low)	increase (high)	increase (high)	seriously	increase (high)
41	Dnipro River Delta	3UA009	slightly	seriously	slightly	significantly	increase (high)	slightly
42	Lower Dniester (Nistru de Jos)	3MD002	moderately	seriously	increase (high)	seriously	seriously	seriously
43	Dniester-Turunchuk Crossrivers Area	3UA006	moderately	seriously	increase (high)	seriously	seriously	seriously
44	Gemenc	3HU015	increase (high)	increase (high)	increase (high)	increase (low)	moderately	increase (high)
45	Mures Floodplain	3RO004	slightly	seriously	seriously	seriously	moderately	seriously
46	Nature Park Kopacki Rit	3HR002	increase (high)	increase (high)	increase (high)	increase (high)	significantly	increase (high)
47	Lonjsko Polje & Mokro Polje	3HR003	significantly	increase (low)	increase (high)	increase (high)	seriously	increase (low)
48	Danube Delta	3RO001	significantly	increase (low)	increase (low)	slightly	increase (low)	increase (low)
49	Obedska Bara	3RS001	slightly	increase (low)	increase (high)	increase (high)	increase (high)	increase (high)
50	Canarale de la Harsova	3RO016	significantly	increase (low)				
51	Danube Islands-Bugeac-Iortmac	3RO017	significantly	increase (low)				
52	Belene Islands Complex	3BG006	moderately	increase (low)				
53	Camargue	3FR001	increase (low)	increase (low)	increase (high)	increase (high)	seriously	increase (low)
54	Neretva River Delta	3HR004	seriously	increase (high)	increase (high)	increase (high)	slightly	increase (high)
55	Paul do Boquilobo	3PT005	moderately	increase (low)	increase (high)	slightly	slightly	slightly
56	Donana	3ES001	slightly	seriously	increase (high)	seriously	significantly	significantly
57	Sebkhet Kelbia	1TN016	seriously	increase (high)	seriously	increase (high)	increase (low)	increase (low)
58	Embouchure de la Moulouya	1MA015	increase (high)	seriously	moderately	slightly	increase (low)	slightly
59	Delta Interieur du Niger	1ML001	increase (high)	moderately	increase (low)	increase (high)	increase (low)	increase (low)
60	Lake Chad Wetlands in Nigeria	1NG002	moderately	increase (low)	increase (high)	increase (high)	increase (low)	increase (low)
61	Baturiya Wetland	1NG004	significantly	increase (high)	increase (high)	increase (high)	seriously	increase (high)
62	Zone humide du moyen Niger II	1NE007	increase (low)	slightly	increase (low)	increase (high)	increase (low)	increase (low)
63	Plaines d'inondation des Bahr Aouk et Salamat	1TD005	seriously	slightly	increase (high)	increase (high)	slightly	slightly
64	Lower Kaduna-Middle Niger Floodplain	1NG007	increase (high)	moderately	increase (high)	increase (high)	increase (low)	increase (high)
65	Tana River Delta	1KE006	increase (low)	increase (high)	increase (high)	increase (high)	increase (low)	increase (high)
66	Kilombero Valley Floodplain	1TZ003	slightly	increase (high)				

67	Luangwa Flood Plains	1ZM005	seriously	increase (low)	increase (high)	significantly	increase (low)	increase (low)
68	Zambezi Floodplains	1ZM007	slightly	increase (high)	moderately	increase (low)	seriously	slightly
69	Marromeu Complex (Zambezi Delta)	1MZ001	slightly	increase (high)	increase (high)	seriously	moderately	slightly
70	Okavango Delta System	1BW001	increase (low)	increase (low)	increase (high)	moderately	seriously	increase (low)
71	Ndumo Game Reserve	1ZA014	increase (high)	increase (high)	increase (low)	seriously	increase (low)	increase (low)
72	Lower Dvouobje	2RU013	increase (high)	slightly	increase (low)	increase (high)	increase (low)	increase (low)
73	Oka & Pra River Floodplains	3RU007	significantly	seriously	seriously	seriously	significantly	seriously
74	Volga Delta	3RU002	significantly	seriously	seriously	seriously	significantly	seriously
75	Shandong Yellow River Delta Wetland	2CN045	increase (high)	seriously	increase (low)	significantly	increase (low)	increase (low)
76	Lower part of Pyandj River	2TJ003	increase (high)	increase (high)	slightly	increase (low)	increase (high)	increase (high)
77	Hawizeh Marsh (Haur Al-Hawizeh)	2IQ001	seriously	increase (low)	moderately	seriously	increase (high)	moderately
78	Shadegan Marshes & mudflats of Khor-al Amaya & Khor Musa	2IR006	increase (high)	increase (high)	seriously	slightly	increase (high)	increase (high)
79	Dong dongting hu	2CN004	increase (high)	increase (low)	increase (low)	increase (high)	increase (high)	increase (high)
80	Sundarbans Reserved Forest	2BD001	increase (high)	increase (high)	increase (high)	increase (high)	slightly	increase (high)
81	Middle Stretches of the Mekong River	2KH003	increase (high)	increase (high)	increase (high)	increase (low)	increase (low)	increase (high)
82	Boeng Chhmar	2KH001	increase (high)	increase (low)	increase (high)	slightly	increase (high)	increase (high)
83	Bau Sau Wetlands and Seasonal Floodplains	2VN002	increase (high)	seriously	increase (high)	increase (high)	increase (low)	increase (high)
84	Tram Chim National Park	2VN004	increase (high)	increase (low)	increase (low)	increase (high)	increase (low)	increase (low)
85	Lower Kinabatangan-Segama Wetland	2MY006	increase (high)	increase (high)	increase (high)	slightly	seriously	increase (high)
86	Danau Sentarum	2ID002	increase (high)	increase (low)	increase (high)	slightly	increase (low)	increase (low)
87	Kakadu National Park	5AU002	moderately	increase (high)	seriously	increase (high)	increase (high)	increase (high)
88	Ord River floodplain	5AU031	increase (high)	increase (high)	increase (low)	increase (high)	increase (high)	increase (high)
89	Gwydir Wetlands	5AU051	significantly	increase (low)	slightly	significantly	significantly	significantly
90	Macquarie Marshes	5AU027	seriously	increase (high)	increase (high)	increase (high)	seriously	increase (high)
91	Riverland	5AU029	seriously	moderately	increase (low)	increase (high)	increase (high)	increase (low)
92	Banrock Station Wetland Complex	5AU059	seriously	moderately	increase (low)	increase (high)	increase (high)	increase (low)
93	Barmah Forest	5AU014	seriously	increase (high)	increase (low)	increase (high)	increase (high)	increase (high)