## **Information Sheet on Ramsar Wetlands**

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

| NOTE. It is important t  | nat you                      | read the             | accomp      | anymg        | , Ехрі        | anaior                     | y Ive    | ne ana                                 | Guiaei      | ines u                   | ocuii                  | iem t   | eror | e com | pietii | ıg un         | 18 101 | III.        |       |    |  |
|--|------------------------------|----------------------|-------------|--------------|---------------|----------------------------|----------|--|-------------|--------------------------|------------------------|---------|------|-------|--------|---------------|--------|-------------|-------|----|--|
| 1. Date this sheet   | t was                        | comp                 | leted/u     | pdat         | ted:          |                            |          | ı                                      | OR OFF      | ICE US                   | E ONI                  | v       |      |       |        |               |        |             |       |    |  |
| 40.00.00   |                              |                      |             |              |               |                            |          | •                                      |             | YY                       | E OINE                 |         | 1    |       |        | <del></del> _ |        | <del></del> | _     |    |  |
| 18. 08. 92   |                              |                      |             |              |               |                            |          |  |             | 11                       | 07                     | 77      |      | 1     |        | S             | E      | 0           | 0     | 2  |  |
| 2. Country:<br>SENEGAL   |                              |                      |             |              |               |                            |          | Designation date Site Reference Number |             |                          |                        |         |      |       |        |               |        |             |       |    |  |
| 3. Name of wetla<br>Réserve Spéciale   |                              | une de               | e Ndiaë     | <u> </u>     |               |                            |          |  |             |                          |                        |         |      |       |        |               |        |             |       |    |  |
| 4. Geographical  | coord                        | linate               | s: 16°1     | 0'-16        | 6°18          | ' N,                       | 16°      | -16°                                   | .7' W       | r                        |                        |         |      |       |        |               |        |             |       |    |  |
| 5. Altitude: (average 6. Area: (in hectares) 7. Overview: (gene Ndiaël lies on the flooding at high version of the flooding at | 46,5<br>eral sumi<br>ne frii | 50 ha;<br>mary, in t | on Ro       | ute Ne sente | Nationces, of | onale<br>of the w<br>River | 2 b      | etwe<br>d's prin<br>lta, i             | cipal ch    | int L<br>aracter<br>an a | ouis<br>istics)<br>rea |         |      |       |        |               | usly   | y sul       | bjec  | to |  |
| 8. Wetland Type Inland wetland (marine-coastal:  | seaso                        | nally                |             | d riv        | er b          | asin)                      | )        |  |             |                          |                        |         |      |       |        |               |        | docume      | ent.) |    |  |
| inland:  |                              | • M<br>U •           | · N<br>Va · | ·<br>Vt      | O<br>•        | W                          | Р<br>• У | . (Xf                                  | Q ·<br>· Xp | R                        | Ү                      | Sp<br>• | Zg   | Ss ·  | Zk     | Тр            | ٠.     | Ts          |       |    |  |
| man-made:  | 1                            | • 2                  | • 3         | •            | 4             | •                          | 5        | . (                                    | ·           | 7                        | •                      | 8       |      | 9     |        |               |        |             |       |    |  |
| Please now rank the  | se wet                       | tland ty             | pes by l    | isting       | ther          | n froi                     | m th     | ie mos                                 | t to th     | e lea                    | st do                  | min     | ant: |       |        |               |        |             |       |    |  |
| 9. Ramsar Criter   | ria: (p                      | lease circ           | ele the app | olicable     | e crite       | ria; see                   | poir     | nt 12, n                               | ext page    | e.)                      |                        |         |      |       |        |               |        |             |       |    |  |
| <b>1a</b> · 1b   | . 1                          | lc ·                 | 1d          | 2a           | • ,           | 2b •                       | 2        | c ·                                    | 2d          | 3                        | a ·                    | 3b      |      | 3c    |        | 4a            | •      | 4b          |       |    |  |
| Please specify the m   | ost sig                      | nifican              | t criteri   | on ap        | plica         | ıble to                    | the      | e site:                                | _           |                          | _                      |         |      |       |        |               |        |             |       |    |  |
| 10. Map of site in (Please refer to the Explant 11. Name and ad  | atory No                     | ote and G            | uidelines ( | docume       | ent for       | inform                     | ation    | regardi                                |             | able m                   | ap tra                 | its).   |      |       |        |               |        |             |       |    |  |
| Cheikh Oumar Dl<br>Direction des Eau   |                              | Forêts               |             |              |               |                            |          |  |             |                          |                        |         |      |       |        |               |        |             |       |    |  |

Please provide additional information on each of the following categories by attaching

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### **12.** Justification of the criteria selected under point 9, on previous page. (Please refer to Annex II in the Explanatory Note and Guidelines document).

#### **13. General location:** (include the nearest large town and its administrative region)

Saint-Louis administrative region, Département de Dagana, 3 km from Ross-Bethio on the RN2 between Saint-Louis and Richard-Toll.

# **14. Physical features:** (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

Large basin with two points of entry mainly opening onto the south-west and to the assemblage known as the Trois-Marigots. The site lies on a south-west north-east axis between old-to-middle-aged Quaternary land to the south-west and red duneland to the north-east. Soils are impervious halomorphic. The seasonal flux of the floodwaters on the Senegal River and the Lac de Guiers which both used to feed Ndiaël has been disrupted by irrigation networks which have caused a large proportion of the basin in the reserve to dry up. Climate is typical of a transition zone between the ocean and the coastal belt to the west, and the Sahara-Sahelian hinterland to the east. The three-month rainy season lasts from July-August to September.

### **15. Hydrological values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc)

The major benefit accruing from the plan to recharge Ndaiël's waters would be the replenishment of underground water tables and the return to the natural conditions which existed before the noromal flow of floodwaters was disrupted. It would also restore the vitality of the Ndiaël Park, which, together with the Djoudj National Park for Birds, constituted a set of diversified biotopes for the thousands of palaearctic and afro-tropical birds which stop over in the Senegal River valley.

#### **16. Ecological features:** (main habitats and vegetation types)

A small desert area in a Sahelian environment with vegetation dominated by annual grasses such as *Paspalum*, *Panicum*, and *Eragrestis*.

There are a few isolated shrubs, mainly acacia.

# 17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc) Almost nothing remains of the shrubby vegetation, except for a few isolated acacias.

## 18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

Since Ndiaël has been drying up for such a long time, its role as a waterfowl site is becoming increasingly limited. Waterfowl only stop over in the Djoudj National Park, where the last census in 1992 showed a significant decline in numbers for spoonbill *Anas clypeata*, fulvous treeduck, *Dendrocygna bicolor* and Egyptian goose *Alopochen aegyptiacus*.

#### 19. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

Water replenishment would also revive the interest of the local population, particularly encouraging them to resume their traditional activities (farming, market-gardening, fish-farming, etc...).

The planned development of the surrounding land should allow for better utilisation of existing capacity and better integration of the various activities involved.

### 20. Land tenure/ownership of:

(a) site: Ndiaël has Special Wildlife Reserve status and is classified as State-owned forest.

(b) surrounding area: Village lands managed by rural community authorities.

#### 21. Current land use:

- (a) site: No human activity is authorised on the site.
- (b) surroundings/catchment: idem

# 22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:

- (a) at the site: Drying up has adversely affected the site. This caused the government of Senegal to initiate the project to replenish the waters of Ndiaël in order to restore its natural condition and to return it to its original vocation as a site for migratory waterfowl.
- (b) around the site: The extension of rice farming, market-gardening and the use of pesticides will cause drainage waters to overload, and will increase the risk of pollution at the site.
- **23.** Conservation measures taken: (national category and legal status of protected areas including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented)

  The hunting or capture of wild animals is strictly prohibited unless special exemption is granted.

## **24.** Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

Measures are planned within the context of the replenishment project which is now at the prefeasability study stage. The project will be financed by the CIC (Conseil International de la chasse et de la conservation du gibier)

### **25.** Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

There are currently no specific research projects. However, the bird watching and research station located in the Djoudj National Park could extend its activities to cover Ndiaël as soon as replenishment is completed.

**26.** Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.) Education and public information are subjects for consideration during replenishment.

**27.** Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity) Replenishment will allow nature study tourism to be combined with recreational hunting, which will certainly develop because of the existence of two areas adjoining Ndiaël where a hunting permit system is in operation.

**28. Jurisdiction:** (territorial e.g. state/region <u>and</u> functional e.g. Dept of Agriculture/Dept. of Environment etc.) Ministère du Développement Rural et de l'Hydraulique

29. Management authority: (name and address of local body directly responsible for managing the wetland)

Direction des Eaux, Forêts et Chasses, et de la Conservation des Sols (DEFCCS)

Parc Forestier de Hann

B. P. 1831, Dakar Senegal

#### **30. Bibliographical references:** (scientific/technical only)

UICN Mai 1987 - Restauration et Gestion du Ndiaël et des Trois-Marigots dans le delta du Sénégal: contribution à la lutte contre la désertification dans le nord du Sénégal:

M Mietton; J Humbert 1992 Le projet de remise en eau du Ndiaël (Sénégal)

Préfaisabilité hydraulique; bilan hydrologique et impacts

Please return to: Ramsar Convention Bureau, Rue Mauverney 28, CH-1196 GLAND, Switzerland Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@hq.iucn.org