**The Neotropical Waterbird Census**
Strategy Intent 2015 - 2020

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## 1. BACKGROUND

This strategy provides a clear direction and way forward for all of us working with and for the Neotropical Waterbird Census (NWC). The strategy is intended to function as a guide not only for Wetlands International and the organisations that coordinate the NWC but also for each individual who participates, supports or expresses interest in the program.

This strategy was inspired in the "Asian Waterbird Census: Development Strategy 2007–2015" (Wetlands International 2007).

### 1.1 The International Waterbird Census as a global programme

The Wetlands International Strategic Intent 2005–2014 (Wetlands International 2005 – www.wetlands.org) defines four strategic global goals to realise its vision and mission.

> Global Goal 1: Stakeholders and decision makers are well informed about the status and trends of wetlands, their biodiversity, economic values and priorities for action.
>
> Global Goal 2: The values and services delivered by wetlands are recognised and integrated into sustainable development.
>
> Global Goal 3: Conservation and wise use of wetlands is achieved through integrated water resource and coastal zone management.
>
> Global Goal 4: Improved conservation status of wetland biodiversity is achieved through large-scale, transboundary initiatives for wetland dependent species and critical habitats.

The IWC is a site-based counting scheme for monitoring waterbird numbers, organised by Wetlands International, which strongly contributes to the global goals, particularly goals 1 and 4. The census is coordinated as four regional programmes:

- The Neotropical Waterbird Census (NWC), which covers nine countries of South America and which is the subject of this strategy, is coordinated by the

Wetlands International office in Buenos Aires, Argentina (see e.g. Blanco & Carbonell 2001, López-Lanús & Blanco 2005).

- The counts in the Western Palaearctic and Southwest Asia (IWC–WP&SWA) are coordinated and compiled by the Wetlands International office in Wageningen, The Netherlands (see e.g. Gilissen *et al*. 2002, Solokha 2006).

- The Asian Waterbird Census (AWC), which covers South, East and Southeast Asia (including eastern Russia) and Australasia, is coordinated from the Wetlands International office in Kuala Lumpur, Malaysia (see e.g. Li and Mundkur 2004, 2007).

- The African Waterbird Census (AfWC) is coordinated from the Wetlands International office in Dakar, Senegal (see e.g. Dodman and Diagana 2003).

The IWC is mandated and endorsed by the Ramsar and CMS conventions through various resolutions, like the Ramsar Resolution VIII.38 (Waterbird population estimates and the identification and designation of Wetlands of International Importance) and CMS Resolution 10.10 (Guidance on global flyway conservation and options for policy arrangements).

Besides Ramsar Resolution X.22 (Promoting international cooperation for the conservation of waterbird flyways), requests *Wetlands International to draw upon status information from Waterbird Population Estimates to report periodically on the state of the world's waterbirds to the Contracting Parties of Ramsar, CMS, AEWA and CBD, and URGES Contracting Parties and others both to contribute the necessary financial support to enable the production of such international assessments and to support the coordinated International Waterbird Census (IWC), which contributes to these population estimates and assessments and the provision of much other relevant knowledge.*

The recommendations of the Strategic Plan of the IWC include:

- continue expansion of the census towards a global survey;

- finalise the new database programme, merging taxonomical databases, and have it adopted in all regions, which will facilitate exchange of data between the regional databases;

- disseminate the results of the IWC more regularly, especially through the internet;

- include waterbird data from additional seasons and sources;

- increase capacity to deliver products that meet the needs of conventions and their contracting parties, mainly through the increase in species coverage and geographical coverage;

- increase cooperation with organisations working towards the conservation of (migratory) waterbirds (e.g. BirdLife International: Global Species and Important Bird Areas (IBA) Programmes, hunting organisations);

- link the database with a Geographic Information System (GIS), to standardise geographical definition of sites; and

- extend the scope of application of the data, for example with research on climate change and avian influenza.

The major change in the direction proposed for the IWC is the development of a more global character and closer interaction of the regional schemes in terms of standardisation and data management and application.

### 1.2 Background to the Neotropical Waterbird Census

The Neotropical Waterbird Census (NWC) is coordinated from Wetlands International's office in Buenos Aires, Argentina. The census was initiated in 1990 in southern South America (Argentina, Chile and Uruguay), and has grown rapidly to the north. In 1991 Brazil and Paraguay joined the programme, followed by Colombia and Peru in 1992, by Bolivia and Ecuador in 1995 and by Venezuela in 2006. By that year the NWC covers ten countries and 97% of South America. In 2008 census were also developed in French Guiana, Suriname and Trinidad & Tobago.

Standardized waterbird counts are carried out at the same sites twice a year in February and July. Counts include grebes, pelicans, cormorants, herons, storks, flamingos, screamers, swans, geese, ducks, rails, shorebirds, gulls and terns. By 2014 simultaneous counts are carried out in nine countries of South America: Argentina, Brazil, Colombia, Chile, Ecuador, Paraguay, Peru, Uruguay and Venezuela.

Information generated by the NWC from 1990 to 2004 has been published in a series of annual reports and other publications (Carp 1991, Blanco & Canevari 1992, 1993, 1994, 1995, 1996, 1997, 2000; Blanco & Carbonell 2001, López-Lanús & Blanco 2005). In addition to this, results from the years 1990 to 1995 were analysed to explore the NWC value and future possibilities as a tool for wetland and waterbird conservation in the Neotropics (Blanco *et al.* 1996, Blanco & Carbonell 2001). The data for the periods 2005 to 2012 were compiled in national reports which are available in our webpage.

### 1.3 Objectives of the Neotropical Waterbird Census

The NWC program was established to provide baseline information on the distribution and abundance of waterbirds and wetland habitats within the Neotropics. The programme aims to contribute to waterbirds and wetlands conservation by:

- Increasing the awareness of the importance of waterbird and wetlands habitats

- Providing the basis for estimates of waterbird populations

- Monitoring changes in waterbird numbers

- Improving knowledge of little-known waterbird species

- Identifying and monitoring sites that qualify as wetlands of international importance

### 1.4 Applications of the Neotropical Waterbird Census results

The NWC has played a significant role not only in the conservation of waterbirds and their habitats at the national level but also at the international level. It has contributed to a variety of conservation activities at levels ranging from local to global by supporting:

- the Ramsar Convention in identifying wetlands of international importance through regular monitoring of waterbird sites, and the countries in the implementation of the convention and designation of new Ramsar Sites;

- the Convention on Migratory Species (CMS) by monitoring the status of migratory waterbirds and their habitats;

- the Western Hemisphere Shorebird Reserve Network Initiative in South America, through the identification and monitoring of key shorebird sites;

- BirdLife International's Important Bird Areas (IBA) Programme with key information for the designation of new IBAs at country level (i.e. designation of 10 IBAs in Chile);

- Wetlands International's Waterbird Population Estimates (WPE) Programme (Wetlands International 2014);

- The countries in their efforts to create new protected areas and to monitor waterbirds and key wetland sites, providing key information to support the development of national conservation plans and species Red Lists (i.e. Red Book of Threatened Birds of Colombia);

- Global Avian Influenza Network for Surveillance (GAINS) programme led by the Wildlife Conservation Society; mapping waterbird distribution and migration, avian influenza risk analysis (i.e. Blanco *et al.* 2008, Ministerio de Agricultura, Ganadería y Pesca & SENASA 2010);

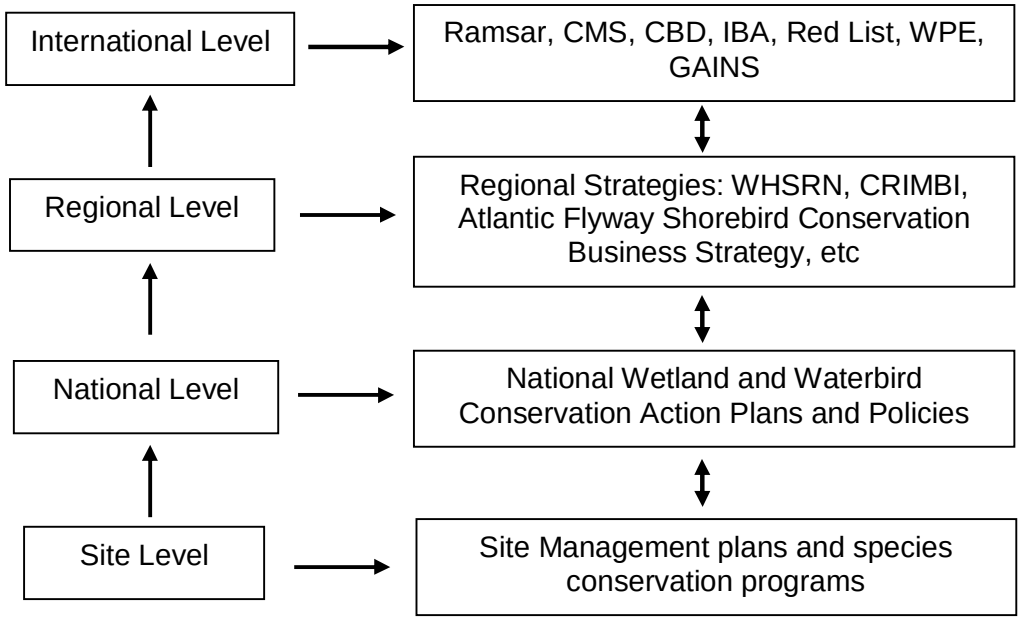
- the development of threatened waterbird species Action Plans (i.e. Brazilian Merganser in Brazil);

- the development of Shorebird Species Conservation Plans and Strategies (i.e. Vickery *et al.* 2010, Lanctot *et al.* 2010, Clay *et al.* 2010, 2012) as well as national shorebird conservation plans (Brazil, Colombia, etc);

- species and site conservation and research programmes and campaigns to raise awareness of the importance of wetlands and waterbirds in many countries; and

- the development of global population trend models in waterbirds using waterbird census data.

As an important conservation programme for waterbird conservation, the NWC has been widely recognised by agencies and organisations responsible for nature conservation at local, national and international levels, and there is a need to develop a long-term strategy to ensure the successful future development and delivery of the program at all these levels.




The Neotropical Waterbird Census's contribution to national and international conservation frameworks. *Key: Ramsar – Convention on Wetlands, CMS – Convention on Migratory Species, CBD – Convention on Biological Diversity, IBA – BirdLife International's Important Bird Areas Programme, Red List – IUCN Red List/BirdLife International's Global Species Programme, WPE – Wetlands International's Waterbird Population Estimates Programme, GAINS – Global Avian Influenza Network for Surveillance, WHSRN – Western Hemisphere Shorebird Reserve Network, CRIMBI - Copper River International Migratory Bird Initiative.*

## 2. OVERVIEW OF CURRENT STATUS

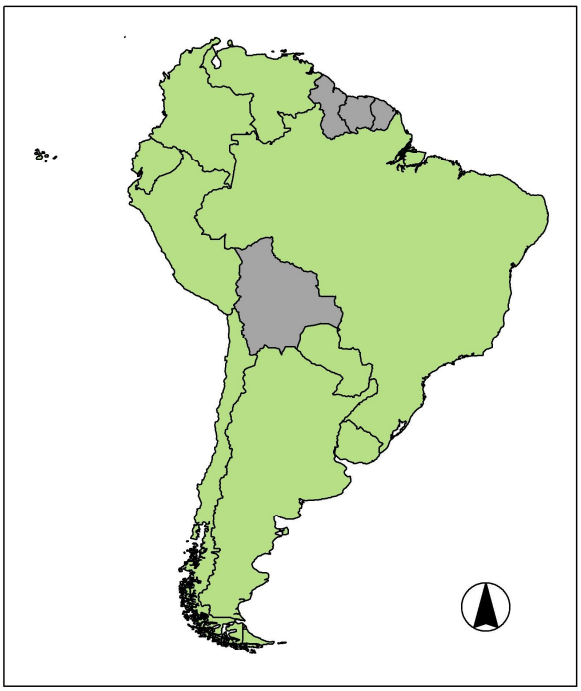
### 2.1 Country and site coverage by the NWC

Since the establishment of the NWC in 1990 more than 5.400 sites in 13 countries have been covered at least once. The number of sites covered varies from year to year as it is dependent primarily on the capacity of national networks of volunteers (Table 1). The peak totals of waterbirds reported by the NWC occurred in 2007-2010 period, when between 358 and 419 sites were counted per year. However, census results fell in 1996–2003 period when information was submitted by national

coordinators and participants for an average of 150 sites per year. Since 2004 the spatial coverage of the NWC increased thanks to concerted efforts by national coordinators, participants and Wetlands International.

**Table 1.-** Total numbers and overall total of sites counted for the Neotropical Waterbird Census (winter census 1990–2010).

| COUNTRY | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996-2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Argentina | 50 | 127 | 173 | 139 | 113 | 107 | 782 | 59 | 85 | 78 | 63 | 54 | 97 | 101 | 2.028 |
| Bolivia | - | - | - | - | - | 15 | 92 | 11 | 28 | 44 | - | - | - | - | 190 |
| Brazil | - | 40 | 38 | 25 | 28 | 19 | - | 60 | 65 | 44 | 84 | 43 | 17 | 38 | 501 |
| Chile | 44 | 61 | 89 | 89 | 55 | 76 | 327 | 20 | 20 | 21 | 26 | 46 | 61 | 83 | 1.018 |
| Colombia | - | - | 3 | 10 | 11 | - | - | 10 | 69 | 64 | 70 | 76 | 72 | 76 | 461 |
| Ecuador | - | - | - | - | - | - | - | 22 | 25 | 26 | 21 | 11 | 10 | 11 | 126 |
| French Guiana | - | - | - | - | - | - | - | - | - | - | - | 10 | - | - | 10 |
| Paraguay | - | 21 | 28 | 19 | - | - | 22 | 18 | 38 | 6 | 10 | 16 | 18 | 9 | 205 |
| Peru | - | - | 38 | 20 | 8 | - | - | 34 | 47 | 57 | 37 | - | 56 | 28 | 325 |
| Suriname | - | - | - | - | - | - | - | - | - | - | - | 2 | - | - | 2 |
| Trinidad & Tobago | - | - | - | - | - | - | - | - | - | - | - | 5 | - | - | 5 |
| Uruguay | 10 | 18 | 11 | 7 | 15 | 9 | - | 10 | 30 | 31 | 37 | 34 | 33 | 20 | 265 |
| Venezuela | - | - | - | - | - | - | - | - | - | 50 | 53 | 61 | 50 | 53 | 267 |
| **Total No. of Sites** | **104** | **267** | **380** | **309** | **230** | **226** | **1.223** | **244** | **407** | **421** | **401** | **358** | **414** | **419** | **5.403** |



Map showing the NWC current coverage (green) and past coverage (grey) in South America.

By 2005 the Neotropical Waterbird Census put a major focus to cover key recognized sites for waterbird conservation. Per example in the period 2008-2010 30% of the sites covered were Ramsar Sites, WHSRN Reserves, Important Bird Areas (IBA) and other protected areas (Table 2).

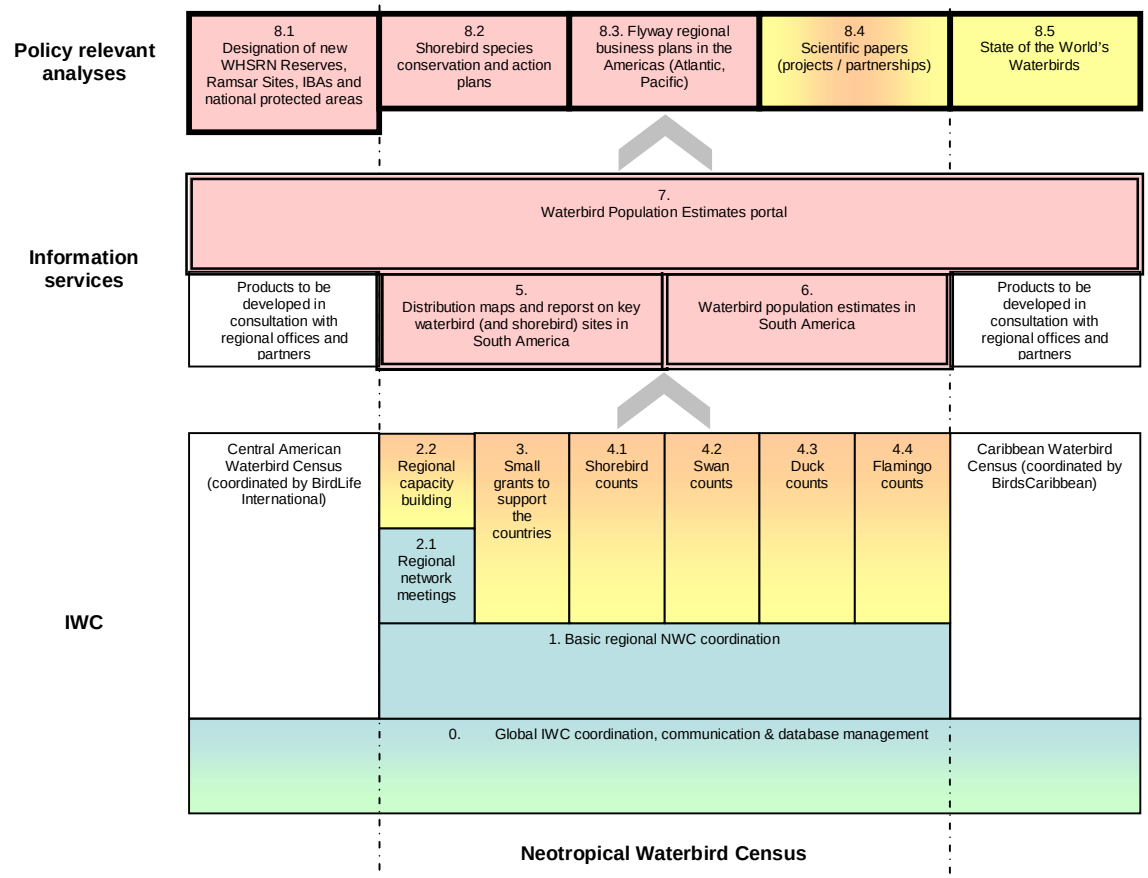
**Table 2.-** Key sites covered by the NWC in February (average for the period 2008-2010).

| Key sites | Argentina | Bolivia | Brazil | Chile | Colombia | Ecuador | Paraguay | Peru | Uruguay | Venezuela | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ramsar Sites | 10 | 1 | 1 | 5 | 2 | 1 | 3 | 3 | 1 | 3 | **30** |
| WHSRN Reserves | 3 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 1 | 0 | **9** |
| IBAs | 0 | 1 | 2 | 0 | 7 | 6 | 6 | 6 | 7 | 8 | **43** |
| Other protected areas | 0 | 1 | 7 | 0 | 3 | 0 | 4 | 4 | 4 | 5 | **28** |
| **Total** | **13** | **3** | **10** | **7** | **12** | **8** | **14** | **14** | **13** | **16** | **110** |

## 2.2 National coordination and network development

The NWC is a "site-based" counting scheme for monitoring waterbirds with volunteer participation. Most volunteers are members of enthusiastic networks and Partner NGOs, with professional coordination. Some volunteers belong to bird-watching networks, others are guides, students and a few are science related.

Wetlands International is responsible for regional coordination of the NWC. Such coordination will involve the facilitation of the partnership and managing shared data.




Building blocks of the Waterbird Monitoring Programme. Global coordination and database management (0) represents the foundation of the broader waterbird monitoring programme and it is

maintained by Wetlands International from its own resources. It is complemented by regional coordination activities (1 and 2.1) to be financed through complementary funding. Capacity building (2.2), small grant support to counts in developing countries (3) and various special counts (4.1-4) are to be carried out through projects and partnerships. Key information services ensuring basic analysis and delivery of data to users (5-8) and feeding into policy relevant or scientific analyses (8.1-8.5).

Coordination of the NWC in each country is undertaken on a voluntary basis by a non-governmental organisation (NGO) or individual. To date, NWC coordinators have been nominated in nine countries (Table 3). In some countries like Chile, sub-national (regional / provincial / state) coordinators have also been nominated by the National Coordinators. Regular contact has not yet been established in some countries, including French Guiana, Guyana, Suriname and Trinidad & Tobago and there is still a need for national coordinators to be nominated and networks of participants to be established in these countries.

**Table 3.-** Neotropical Waterbird Census network in the region (as by July 2013).

| **Country** | **Local partner** |
|---|---|
| Argentina | Aves Argentina (AOP) |
| Brazil | *Non institutional coordination* |
| Chile | Red de Observadores de Aves (ROC) |
| Colombia | Asociación Calidris |
| Ecuador | Aves & Conservación |
| Paraguay | Guyra Paraguay |
| Peru | *Non institutional coordination* |
| Venezuela | Unión Venezolana de Ornitología (UVO) |
| Uruguay | AverAves |

## 3. OPPORTUNITIES AND CHALLENGES FOR THE NWC

The strength of the NWC is that it is a long-term, volunteer-based international network that has been able to continue despite a low input of resources. The future of the program will depend on the participation and goodwill of many people from all around the region, but also on the long-term support of the funding agencies.

In 2011 a Regional Consultation on the Neotropical Waterbirds Census was carried out (Andelman & Blanco 2011), aimed to assess the present status of the program as the basis for improving and promoting its implementation, and to facilitate use of information for the various stakeholders and to face future challenges. Based on this consultation, the main challenges involved in developing the NWC program are related to the funding basis, marketing of the program, capacity building and institutional support.

### 3.1. Funding basis

It is necessary to point out that the National Coordinators have not been successful in fundraising to complement the subsidies provided by Wetlands International. Nevertheless, 50 % of the countries receive in kind support from governmental organizations and NGOs, and in some cases from the private sector, especially in

equipments and logistics. All the coordinators have recognized the need to have a larger budget to increase the impact and scope of the NWC.

### 3.2. Marketing of the NWC

Though the NWC is positioned in some sectors of interest, the National Coordinators think it is very important to realize the marketing of the program to achieve major visibility, more institutional support and to extend the scope of the activity to other institutions and communities, to take efficient advantage and profit from the produced information.

In addition, it is necessary to take into account that priority should be given to some sites that may not have a particular value for conservation, but are important for local communities. The marketing of the census through courses, dialogues, materials, bulletins, etc, would stream community participation, extending the scope of the NWC.

### 3.3. Capacity building

Training of the NWC volunteers was considered as a very important topic. Although in some cases the number of volunteers and their skills to carry out monitoring activities is acceptable, the National Coordinators indicated that many volunteers are students, therefore insufficiently qualified to realize census. Thus, it becomes necessary to train volunteers in the field on species identification and counting methods.

To conduct training and public awareness workshops at the local level, is a good strategy to value the information provided by the NWC, to generate knowledge, to facilitate local government's involvement and of people, and to articulate existing networks.

### 3.4. Institutional support

NWC receives institutional support from several NGOs, scientific institutions and in some cases national and local governments. Nevertheless, this is not sufficient to increase the scope of the program. To achieve further recognition we need to involve other NGOs, National Parks Services, scientific institutions, bird watching networks, guide's associations, and in some cases, the private sector. The construction of strategic alliances with key organisms and institutions was identified as a priority for next years.

## 4. OBJECTIVES AND PRIORITY ACTIONS FOR NWC 2015–2020

The Regional Consultation on the Neotropical Waterbirds Census carried out in 2011 (Andelman & Blanco 2011), was used as the baseline for the development of the present strategy.

The NWC Strategy 2015–2020 focuses on seven objectives and 25 priority actions at the national and regional levels:

### 4.1 Objectives

Objective 1: To enhance geographic and site coverage of the NWC, with special attention to key waterbird sites.

Objective 2: To ensure the high quality of NWC data collected in order to support the implementation of conservation actions

Objective 3: To support improved decision making on waterbird and wetland conservation at national and international levels.

Objective 4: To enhance communication and public awareness of the NWC in order to demonstrate the value of the program to achieve waterbird and wetland conservation at different levels.

Objective 5: To develop a fundraising strategy for the NWC and seek funding opportunities to support its development.

Objective 6: To build the capacity of national networks to monitor waterbirds and wetlands.

Objective 7: To improve the coordination mechanism for effective operation and targeting of the NWC.

## 4.2 Priority actions

| Objective | Action |
|---|---|
| **Objective 1:** To enhance geographic and site coverage of the NWC, with special attention to key waterbird sites. | **Action 1:**<br>Re-establish contact with those countries of South America that currently are not part of the NWC to invite them to join the program.<br><br>**Action 2:**<br>Complete national coordination with regional sub-coordinators in each country.<br><br>**Action 3:**<br>Develop strategic alliances with key organizations at national level, particularly those that manage priority areas such as National Parks, Ramsar sites, WHSRN Sites and private protected areas, as well as other institutions such as NGOs, local and national governments, private companies, bird-watching networks, guide's associations, among others.<br><br>**Action 4:**<br>Compile lists of priority wetland sites of national and international importance to be covered each year by the NWC.<br><br>**Action 5**:<br>Encourage countries to conduct additional surveys at other times of year (for example during the northward and southward migrations) when possible and submit data for inclusion in the NWC database. |
| **Objective 2:** To ensure the high quality of NWC data collected in order to support the implementation of conservation actions | **Action 6:**<br>Review the current methodology of the NWC to evaluate the needs of adjustments to standardize with other count schemes existing within the region, as well as to generate sounder data and stronger information based on the requirements of the NWC data users (WHSRN, etc).<br><br>**Action 7:**<br>Prepare boundary maps for NWC sites, starting with those included in the priority list of important wetlands (Action 3) to be covered by the NWC and undertake adequate planning and make arrangements to ensure their annual coverage.<br><br>**Action 8:**<br>Promote the storage of data in the NWC standardised database in all countries and at regional level, to ensure timely and efficient transmission of data.<br><br>**Action 9**<br>Check regularly the quality of data stored in the NWC database to fill missing data and to identify data entry mistakes that should be corrected.<br><br>**Action 10:**<br>Ensure that National Coordinators designated in each country |

| | |
|---|---|
| | fulfil the expected scientific and technical requirements, as the basis to comply the tasks of the position [1].<br><br>See also Objective 6 and Actions 22, 23 and 24. |
| **Objective 3:** To support improved decision making on waterbird and wetland conservation at national and international levels. | **Action 11:**<br>Analyze the NWC data and produce regional reports and other publications to promote and support threatened species action plans and other species and site based conservation initiatives, demonstrating the usefulness of the program in reaching conservation objectives.<br><br>**Action 12:**<br>Report proactively and efficiently on the status of waterbirds and wetlands to national conservation and development agencies, national Ramsar committees and other data users in the NWC countries.<br><br>**Action 13:**<br>Ensure timely provision of NWC data to the development and review of estimates of waterbird populations to feed into the Waterbird Population Estimates.<br><br>**Action 14:**<br>Develop and maintain an up-to-date web-based information system to improve access to the NWC data.<br><br>**Action 15**<br>Promote the publication of the NWC data into the Global Biodiversity Information Facility (GBIF) and into other platform like EBirds, to inform better decisions to conserve and sustainably use waterbirds. |
| **Objective 4:** To enhance communication and public awareness of the NWC in order to demonstrate the value of the program to achieve waterbird conservation at different levels. | **Action 16:**<br>Develop a communication and marketing strategy for the NWC, including an awareness programme for governments to improve their knowledge of the value of the census and the importance of conservation of wetlands and waterbirds.<br><br>**Action 17:**<br>Maintain an up-to-date NWC website to enhance communication and public awareness.<br><br>**Action 18:**<br>Produce annual national reports and one annual regional newsletter as feedback to the NWC network. |
| **Objective 5:** To develop a fundraising strategy for the NWC and seek funding opportunities to support its development | **Action 19:**<br>Identify potential strategic partnerships, donors and fundraising opportunities and national and international levels, as the basis for the development of successful proposals to reach the needed long-term support for the NWC. |

[1] **National Coordinators task:** Undertake a quality check on count information, ensure that annual counts are undertaken during the suggested period each year, ensure the collection of count data in a timely manner after the census, promote the use of standardised count and site forms, support volunteers in data collection, including providing participation guidelines and support logistics and submit national census data or databases to Wetlands International in the agreed dates.

| | |
|---|---|
| **Objective 6:** To build the capacity of national networks to monitor waterbirds and wetlands. | **Action 20:**<br>Conduct national training activities for NWC volunteers to enhance their capacity and skills in counting and identification, taking advantage of the installed capacities in the region and adding up strategic partners (educational centers, environmental organisms, NGOs and zoos), and activities to recruit new volunteers.<br><br>**Action 21:**<br>Develop a census training manual containing specific guidelines for participation in the NWC.<br><br>**Action 22:**<br>Promote the preparation and distribution of identification guides for those waterbird groups of identification problems, in cooperation with the WI Specialist Groups. |
| **Objective 7:** To develop a coordination mechanism for effective operation and targeting of the NWC. | **Action 23:**<br>Maintain regular communications with the National Coordinators in each country, to learn about their needs and progresses.<br><br>**Action 24:**<br>Implement an annual webinar meetings of National Coordinators to facilitate communication and exchange of experiences.<br><br>**Action 25:**<br>Organize workshops with the NWC National Coordinators each three years to review the program and the NWC strategy. |

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