25 YEARS OF JOURNEYS

A special report to mark the Silver Anniversary of the Bonn Convention on Migratory Species (1979–2004)

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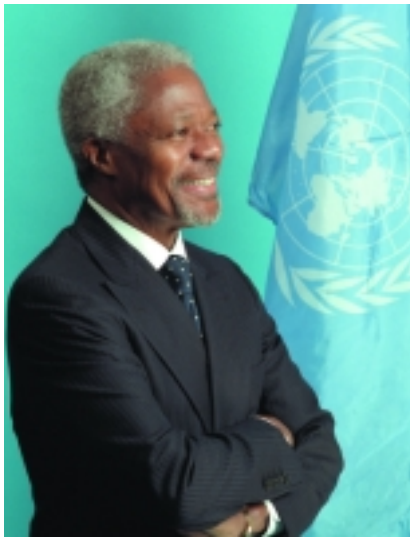
A message from the Secretary-General of the United Nations



People have long marvelled at the sight of great flocks, shoals or herds of migratory creatures on the move, or have wondered at that movement's meaning. Migratory animals are not only something spectacular to behold from afar; they are an integral part of the web of life on Earth. Animal migration is essential for healthy ecosystems, contributing to their structure and function and visibly connecting one to the other. It is a basis for activities that create livelihoods and support local and global economies. Migratory animals are among the top attractions of ecotourism, contributing to sustainable development and national wealth. And in many religious and cultural traditions, they stand out in ritual and lore passed down from generation to generation.

As nomads of necessity, these species are highly susceptible to harm caused by destruction of ecosystems. Migratory animals are also threatened by man-made barriers and by unsustainable hunting and fishing practices, including 'bycatch' in commercial fisheries. People tend to underestimate the vulnerability of migratory species, regarding them as hardy and plentiful. Yet if current trends continue unchecked, more and more of them will be driven to the edge of extinction or beyond.

The Convention on Migratory Species (CMS) was one of the first global treaties to be agreed on conservation and sustainable use of biodiversity. It started out from a recommendation by the 1972 United Nations Conference on the Human Environment in Stockholm, Sweden, which led to the negotiation and adoption of CMS in 1979 in Bonn. It has since become an invaluable tool in the world community's response to environmental degradation and loss of biodiversity, and has spawned over a dozen regional and global agreements between countries through which migratory animals pass.

For 25 years, the Convention has played a crucial role in protecting and preserving an invaluable natural heritage for the benefit of future generations. I call on all governments that have not yet done so, to accede to the CMS and its agreements, so that all countries and peoples are engaged in this effort. As the world marks this anniversary, let us keep the Convention itself – a unique global initiative – on the move.

"People tend to underestimate the vulnerability of migratory species. Yet if current trends continue, more and more of them will be driven to the edge of extinction... I call on all Governments that have not yet done so, to accede to CMS. Let us keep the Convention itself – a unique global initiative – on the move."

Dr Kofi Annan

Secretary-General of the United Nations

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Why migratory animals matter

Like everything else, the journey begins in nature, in the remarkable biological urge that drives some 8000 to 10,000 of the world's 1.5 million named animal species to travel at regular intervals to other feeding or breeding grounds, sometimes many thousands of miles distant from their starting point. Migratory animals can range in form from gorillas, leopards and antelopes to fishes, turtles, bats and birds. And they can vary in size from whales and elephants to apparently frail and featherweight butterflies like the Monarch.

Migratory animals are often vital components of the ecosystems that support life on Earth. For example, by pollinating plants and distributing seeds they can enrich the diversity and reinforce the functions of forests, wetlands, grasslands and other key biomes. They can provide food for other animals or – as predators – keep populations of other animals in healthy balance with the carrying capacity of environments. They can also serve as reliable indicators of environmental quality. Changes in their behaviour or numbers often signal underlying shifts in natural conditions, or newly arrived impacts that could spell trouble for people as well as for animal and plant life.

Migratory animals are also vital to local and national economies, yielding food and livelihoods from hunting and fishing activities for subsistence, commercial or recreational purposes. More recently they have become prime attractions for bird- or whale-watching, safari adventure holidays and other forms of ecotourism. In addition, migratory species command powerful significance in many cultural and spiritual traditions – in legend, story, popular song and religious observance as well as in folk medicine and other customary usage. The journeys of migratory species can provide recreational and educational enrichment for all societies, no matter how secular or urban. Even the way people measure time and experience the changing seasons is intimately connected with these natural arrivals and departures. In art and literature, migratory animals often occur as metaphors for restlessness and exile, or as reminders of an age when our own ancestors are thought to have existed mainly as nomadic hunters.

Despite persuasive arguments in favour of conserving and cherishing migratory animals and their habitats, human activity in the modern age has exacted a heavy toll on both. Unsustainable hunting and fishing practices, such as the entanglement of marine animals in the nets and long-lines of commercial fisheries, or the motorised hunting of scarce wildlife with automatic weapons in Africa's Sahel, have reduced populations of many species to a tiny fraction of their pre-industrial numbers. Other human activities affect migratory species less directly – but no less acutely. Wetland, forest and grassland habitats are absorbed or replaced by agriculture, industry and urban infrastructure, barring them to wildlife movements. Seabed ecosystems are denuded by fishing trawls. Obstacles like dams or game fences turn formerly open migratory routes into dead ends, while migratory birds risk lethal electrocution or crippling injury if they perch on, or collide with, power transmission lines or towers.

Other, less self-evident dangers include the introduction of antagonistic alien species into defenceless habitats where there are no predators to control them, the harmful effects of industrial and agricultural pollution and the impact – yet to be fully measured – of climate change. Pressures like these have made migratory species in general increasingly uncommon. A great many now stand at the brink of extinction.

"Conservation and effective management of migratory species of wild animals require the concerted action of all States within the jurisdictional boundaries of which such species spend any part of their life cycle."

FROM THE PREAMBLE TO THE CONVENTION

The world community's response

Concerns of biologists and conservationists over the plight of migratory species were laid before the world community at the United Nations Conference on the Human Environment, convened in 1972 in Stockholm, Sweden. A recommendation was passed calling on the United Nations Environment Programme (UNEP) – the new inter-agency and world body for reconciling environment with development that was the Stockholm Conference's most notable legacy – to pursue a multilateral agreement responding to these concerns. A lengthy negotiating trail (see page 19) led in 1979 to top-level talks in Bonn, Germany where the Convention on the Conservation of Migratory Species of Wild Animals (CMS, sometimes also called the Bonn Convention) went through the latest of many drafts and was finally adopted.

By bringing together the States through which migratory animals passed – their Range States – the Convention laid a legal foundation for conservation measures throughout extended migratory ranges, measures that were to be embedded and defined in greater detail in detailed conservation and management plans. Thus the Convention set out to provide a global platform for the conservation and sustainable use of migratory animals and of places they rely on for survival. The conservation status of key species was indicated in two appended lists (see overleaf).

As well as establishing obligations on all Member countries to protect the most endangered species, listed in its Appendix I, the Convention set a framework for regional or multi-country agreements for conserving particular migratory species or groups of species across their known ranges. In the past 15 years over a dozen such agreements

have been concluded, applying to listed species of bats, birds, large herbivores, dolphins and whales, marine turtles and seals. CMS also initiates fact-finding projects worldwide, seeking partnership with other treaty bodies and leading independent research and conservation groups with a view to improving knowledge about migratory animals and sharing new insights into the practicalities of conserving them.

As a Convention dedicated to the principle of sustainable development, CMS has always upheld the legitimacy of economic activities involving the sustainable economic use of migratory species, for purposes ranging from subsistence or sport hunting to the creation of livelihoods and national wealth from commercial and income-generating activities such as ecotourism or fisheries. This role was endorsed at the 1992 United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil and more recently at the World Summit on Sustainable Development (WSSD), convened in Johannesburg, South Africa, in 2002 (see page 26). The work of CMS is geared to implementing goals set at Johannesburg by supporting programmes to bring long-term benefits to local communities and to reduce the rate of biodiversity loss – a world problem that threatens to curtail potentially vital development options unless urgent steps are taken to remedy it.

A Message from Dr Klaus Töpfer, Executive Director of UNEP

The early months of 2004 find CMS growing apace, following accession by several new Parties – Côte d'Ivoire, Syria, Belarus, Ecuador and Mauritius – with others about to follow suit and bring the roll-call up to 90. These numbers reaffirm that CMS is in the major league of biodiversity agreements, especially considering the overlapping and sometimes additional membership joined to offspring agreements like the African-Eurasian Waterbirds Agreement (AEWA). This extended family brings the number of countries involved in CMS to over 110.

The emerging picture is of a vibrant, ever-growing Convention with a clear focus on – and a steady resolve towards – implementation. The CMS instruments now include six formal Agreements and seven Memoranda of Understanding. A notable recent gain is the breakthrough represented by the entry into force in February 2004 of another Agreement, on the Conservation of Albatrosses and Petrels in the Southern Hemisphere. The outcomes of the April 2004 Global Flyway Conference in Edinburgh promise to boost international initiatives for conserving biodiversity made under CMS and AEWA, as well as the Ramsar Convention and the Convention on Biological Diversity (CBD). The thriving interactions CMS enjoys with other international bodies and with NGOs make it a benchmark for strength through co-operation – and an impressive example of how to leverage limited resources through synergy with like-minded allies. Nothing typifies the spirit of partnership better than the generosity of the Government of Germany and the City of Bonn, from which the Convention has gained enormously, most recently through the signing of a new Headquarters Agreement.

Though CMS and its Agreements muster relatively modest administrative resources, they have something more significant at their disposal – their status as legally binding commitments made by governments that represent hundreds of millions of people worldwide. They express the will of these people to protect species that cross political boundaries and to set aside political differences to clinch their survival. In this spirit, I would like to urge all countries not yet a Party to CMS, to join. In the Convention you will find an effective, specialised tool, ready with technical and financial support, that can help you to achieve national goals set out in biodiversity strategies and action plans. Other biodiversity instruments such as CBD add important new dimensions to the global policy shift in favour of sustainable development. But they need national and range-wide provisions only available under CMS to make a difference to conserving migratory species and their habitats. CMS can now fairly claim to form part of an interlocking array of biodiversity-related Conventions, all working towards achieving the Millennium Development Goals (MDGs) and the objectives of the World Summit on Sustainable Development (WSSD).

UNEP remains keenly committed to the work of CMS and its Parties. Although there is still a long way to go, considering the Convention did not become fully effective till the early 1990s its sponsors can feel justly proud of its track record and optimistic about its prospects. We must acknowledge, however, that in the years since UNCED the Stockholm Conference in 1992 ground is still being lost in the fight to conserve certain migratory animals or animal groups, even in apparently remote areas where pressures on wildlife might be expected to be lighter than in more accessible or developed situations. Examples include Saiga antelopes and Bactrian camels in Central Asia and the albatrosses, petrels and scarce marine turtles that wander the high seas. It is uncomfortably clear that human activities such as poaching and indiscriminate fisheries bycatch still play a part in the continuing decline of populations of these and other key migratory animals. Another persistent problem is habitat loss through land degradation, land-use conversion and pollution, driven in many cases by pressures arising from poverty. Climate change and its impacts could well rack up such pressures still further in the future.

Two generations ago, few would have believed it possible that the world would negotiate CMS and its still-growing number of Agreements. Now in a world enduring stresses that might surprise our predecessors at Stockholm, we have to use that framework to save as many of those species as we can from the threat of extinction. We cannot afford to fail them.

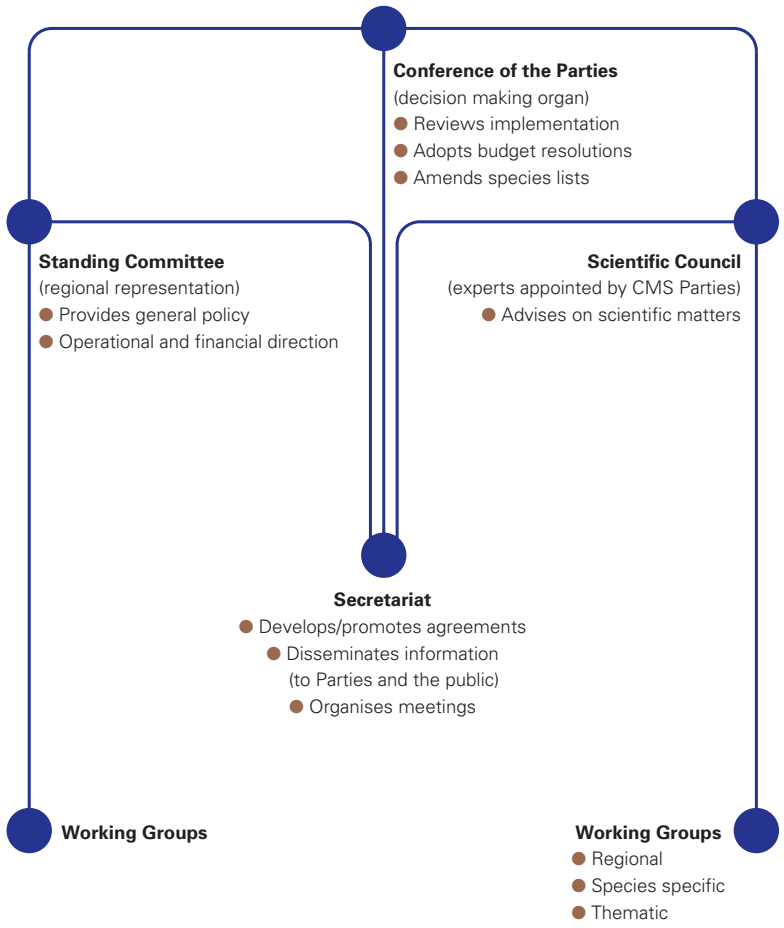
The Convention framework

The concept of migratory species as shared resources requiring conservation interventions that span national boundaries is interpreted under the Convention in two ways, spelt out in the Appendices. While Appendix I denotes endangered species that require immediate protective measures by national authorities wherever they occur, Appendix II listing is for species with 'an unfavourable conservation status' that stand to benefit by international agreements for improving their conservation status and survival prospects. It can happen in cases where species fall into both categories that they are listed in both Appendices. A full round-up of species listed on Appendix I, Appendix II (or both) can be found on the CMS website.

Any State that joins the Convention agrees to strive towards strictly protecting Appendix I animals, conserving or restoring habitats important to them, mitigating obstacles to their migration and curbing other factors that might endanger them, such as hunting other than under agreed conditions. Besides establishing this common set of obligations in respect of Appendix I animals, CMS promotes concerted action among the Range States of species listed in Appendix II or on both Appendices to raise the conservation status of these species. To achieve this goal, the Convention encourages relevant Range States to negotiate legally binding global or regional Agreements or less formal instruments such as Memoranda of Understanding (MoUs) or Action Plans. These instruments prescribe consistent and practical management and conservation measures that will be applied by Parties (and any non-Party Range State that decides to participate in a specific instrument) out of a shared concern to make conditions easier for the listed species as their populations cross successive territories.

This way of working makes CMS a uniquely versatile framework or umbrella for international actions based on agreements tailored to regional and biological realities. Spared the burden of administering global protocols requiring universal consensus, its compact institutions (see right) reflect this customised and streamlined approach. CMS also promotes co-operative research and conservation projects on migratory animals worldwide. The spectrum of activities ranges from population counts to evaluations of the quality of habitats and threats, and the use of satellite telemetry to determine migratory routes. Other studies have focused on breeding habits, fencing of nesting areas, site identification and mapping, and genetic analysis of sample tissues.

Much of this work and many of the Convention's other tasks, such as legal and policy studies, have benefited from partnership with other treaties and international bodies, notably the CBD, the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species (CITES)and the International Whaling Commission.



Inside CMS

The Conference of the Parties (COP) meets at three-yearly intervals and is the decision-making body of CMS. Its Standing Committee gives policy and administrative guidance between meetings. The Scientific Council meets between COP sessions to offer scientific advice and identify research and conservation priorities. The Secretariat develops and promotes Agreements, services meetings, supports and supervises research and conservation projects and co-operates with governments and partner organizations. The Secretariat is provided by the United Nations Environment Programme (UNEP) and currently has a professional staff of 18, based at headquarters in Bonn, Germany.

Journeys at risk

This section of the Convention's anniversary report will trace some of the remarkable journeys – on land, by water and in the air – that migratory animals pursue, relating them to the big picture of sustainable development. Specially commissioned features highlight cases of outstanding concern to CMS and its partners, and describe how these are being tackled through Resolutions and Agreements that stand as landmarks along the trail of negotiations that has brought CMS to its present stage of evolution.

In this and later sections, invited contributions will focus not only on successes but also on reasons why the Convention's own journey towards implementation is still far from complete.

New and emerging challenges and threats stand in the way of sustainable coexistence between migratory animals and the realities of development. But they also point the way to fresh opportunities and potential for interaction between countries, institutions and economic sectors that could make a positive difference to the situation of migratory animals in today's and tomorrow's world, in step with poverty reduction, the wealth of nations, technological progress and the global quest to raise levels of environmental security and quality for everyone.

Uncertain ground – land mammals on the move

Many migratory land mammals regularly cross national borders. Several are endangered, including the Mountain gorilla (see page 8), the African elephant, several antelope species in Africa (see overleaf) and the Saiga antelope of the steppes of Kazakhstan, the Russian Federation, Turkmenistan and Uzbekistan. The situation of the latter gives cause for special concern. For though the Saiga inhabits some of the least inhabited territories on Earth, where pressure from human activities should in normal circumstances be minimal, a recent census by WWF has shown that this antelope's 'strictly protected' status has not prevented surviving populations from declining from over 1m individuals 15 years ago to a mere 30,000 by the end of 2003.

This drastic decline is a result of poaching and smuggling activities prompted by illegal trade in Saiga antlers, which are sold as a supposed cure for male impotence in many urban centres around North Asia. The antlers are cut off while the antelope is still alive, leaving the animal to bleed

African elephant

An emblem of the wildlife riches of eastern, western, southern and central Africa, the African elephant has been a notorious victim of illegal international trade in ivory and other wild animal products. It has also lost large stretches of migratory range as a result of degradation of savanna and forest habitats and conflicts with agriculture and other human activities. CMS works closely with CITES and other treaty bodies and wildlife conservation institutions, to secure an untroubled future for the biggest and most impressive of all migratory land animals.

© Still Pictures

Land issues

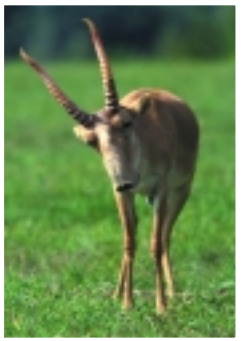
Land degradation was estimated around 10 years ago to have affected nearly 2000 million hectares (15 per cent) of the world's land area and to be worsening at a rate of 5 to 6 million hectares every year (UNEP/GEO3). A key cause is loss of natural ground cover during conversion of marginal drylands, wilderness areas or open forest lands to agricultural or range uses. A major co-factor is reduction of biodiversity and wild animal genetic resources, both directly and as a result of hunting by local people forced through hardship to abandon sustainable practices.

Tourists flock from all over the world to countries like Kenya and Tanzania to see vast herds of migrating zebra and wildebeest tracked by lions and other predators. Not all countries have such natural assets but some have tried using wildlife as a basis for generating income from game ranching and even from sport hunting in marginal and fragile ecosystems, rather than subject the land to intensive agriculture or domestic livestock production. Controversial though trials of such approaches have sometimes been, they show that economic alternatives exist for conserving migrant wildlife and rangelands. Another pressure on migratory wildlife habitats that is much less predictable or manageable is the impact of drier conditions brought about by climate change, especially in wetland areas already extensively drained or depleted. A Joint Work Plan, formally signed at the Edinburgh Global Flyways Conference in April 2004, reaffirmed the importance of these and other common issues and synergies that link Ramsar, the Convention on Wetlands, to CMS and its Agreements (see page 21).

In 2003 a Memorandum of Co-operation was sealed between the Secretariat of CMS and that of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa – better known as UNCCD. It recognises that the habitats of a significant number of migratory species listed as endangered on Appendix I of CMS occur in arid, semi-arid and dry sub-humid parts of the world, and that the survival of the animals in question depends in part on policy and planning measures taken to curb desertification and other forms or stages of land degradation. As well as the exchange of information, the Memorandum foresees joint action by both sets of Parties to identify areas critical to migratory species and to build and share knowledge on how best to manage and conserve these areas, including how to regulate uses such as hunting along wise lines.

Saiga antelope

Poaching and illegal trade in the horns of Saiga antelope, along with uncontrolled hunting for meat, have contributed to its recent decline. Economic hardship and faulty land use planning are root causes that need to be tackled before this free-roaming antelope can be conserved and sustainably managed to economic advantage. CMS is developing an agreement among its Range States to reverse the situation and restore the Saiga to the Central Asian steppes where its vast herds used to be a famous sight.



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Bukhara deer

The Bukhara deer was almost as culturally significant in many parts of Central Asia as the cows in India. Today, only a few hundred animals remain due to illegal hunting and poaching as well as artificial regulations of the water regimes in the river valleys where they live and roam. A Memorandum of Understanding developed under CMS is providing a route-map for efforts to rescue this species from the brink of extinction.

© Olga Pereladova/WWF Russia

to death. The plight of the Saiga highlights an uncomfortable truth, that legal instruments for protecting species are only as effective as compliance and enforcement on the ground can make them. In such cases, the work of matching the Convention's agreed principles with local realities evidently still has a long way to go.

Also listed on the Convention's Appendices are many species of bats and deer, the Bactrian camel and the Snow leopard, the most elusive of the great cats (see boxes, this page and opposite). Though the track record of protection and conservation measures is mixed or ineffective in some of these cases, success stories and examples of good practice also abound. The challenge for all CMS Parties is to achieve a consistent level of implementation for all listed fauna, by seizing the collaborative opportunities CMS offers.

SAVING AFRICA'S ENDANGERED DESERT ANTELOPES

In the 1990s CMS launched a Concerted Action, involving 14 countries in Sahelo-Saharan Africa, to conserve and restore six highly endangered desert and sub-desert ungulates listed on CMS Appendix I. A CMS Action Plan, adopted in 1998 in Djerba, Tunisia, elaborated activities that Range States undertake to fulfil the Action. Progress was reviewed and the Action Plan updated in Agadir, Morocco in May 2003. Wildlife experts ARNAUD GRETH and BERTRAND CHARDONNET describe the results of a recent mission to Niger, part of baseline efforts to implement the Action Plan.

The Addax antelope is in critical danger of extinction, the Dama gazelle, Slender-horned gazelle and Cuvier's gazelle are highly endangered and the Dorcas gazelle has a very vulnerable status; the Scimitar-horned oryx is probably extinct in the wild. The ongoing project of which the mission described here forms a part, initiated by CMS and backed by the Fonds Français pour l'Environnement Mondial (FFEM), works towards developing a network of protected areas to ensure the survival of these species and their habitats.

The initial CMS Sahelo-Saharan Antelopes (SSA) regional project involves seven countries, including three pilot countries, Tunisia, Niger and Mali. A preliminary field survey for the project took place in November 2003 in the Termit Massif area of south-east Niger's Zinder region. It appears likely that this area harbours the last viable wild addax population in the world, although scattered sightings have been reported in Chad and Mauritania. All wild migratory ungulates in and around the Termit Massif are under threat. In such open terrain, these animals are very vulnerable to any kind of hunting and poaching. Importantly these activities are not confined to local people and traditional hunters. Groups of Middle-Eastern sport hunters have been allowed to hunt, targeting mainly Houbara bustards, but ungulates and likely other wildlife are also actively sought. Opening up areas like the Termit Massif to all-terrain vehicles has limited movements of wild animals and left them at the mercy of poachers.

Unless such practices can be stamped out, and action taken to conserve the area's remaining wildlife, several species risk extinction in Niger. Addaxes could soon meet the same fate as the Scimitar-horned oryx. Niger's Dama gazelles are already close to extinction. Plans for conserving them include a systematic inventory of their range in the Termit Massif on which to base management steps and even (if necessary) moves to renew populations with introduced animals.

A recent field investigation in Niger, which included officials from the three main natural resources ministries of the République du Niger, witnessed hundreds of Dorcas gazelles, traces of cheetah and several endangered bird species, including the Arabian and the Nubian bustard. Such findings suggest that the Termit Massif region ranks as a premier site for conserving Saharan biodiversity. All ungulates seen in the area were extremely wary, most keeping a flight distance of over a kilometre, behaviour typical of areas under intense pressure from hunting.

Under the SSA CMS/FFEM project, we hope to launch an integrated conservation and development programme in the Termit Massif region. Development conditions are not easy. The area is remote, administrative structures are lacking and local communities, who depend entirely on pastoralism, are poor. The programme's basic concept hinges on reapportioning land under the stewardship of Tubu pastoralist communities. Dialogue with these communities is being sought with a view to involve them in designing small-scale projects to improve their lives, such as nutrition, health and animal health projects and construction of new schools and wells.

The development potential of Saharan tourism is vast and could become an economic trump card for Niger. If a new day is to dawn for the addax and for large Saharan wildlife in general, it is time to mobilise energy and finance to show that conservation and sustainable management projects for desert regions can boost national wealth as well as creating livelihoods and raising the quality of life for local communities. In this light, saving the addax is an international must.

The CMS Secretariat reports that it has requested the Director of the lead environmental institution of one of the Middle-East countries involved to assist CMS and Niger in developing a plan to protect the Termit Massif as a natural heritage site under the UNESCO World Heritage Convention and support the neighbouring area's economic development. A full recovery of the wildlife within the site might then, in the medium term, lead to the establishment of buffer zones, in which sustainable utilisation of wildlife in the vicinity of the nature reserve could eventually be allowed. The consultations will take some time, but the CMS Secretariat is very optimistic that co-operation will succeed.

Local pastoralists identify fauna in their area.

© John Newby/SSIG

MOROCCO AND THE BONN CONVENTION

Its geographic position between the Atlantic seaboard and the western Mediterranean basin makes Morocco one of the most unique countries in North Africa in terms of geographical, climatic, ecological and biological diversity. Migratory species of wild fauna include Monk seal, turtles, Slender-billed curlews and many scarce or endangered antelope species. ABDELLAH EL MASTOUR, who heads the country's Service des Parcs et Réserves, sums up Morocco's determination to conserve this wealth of biodiversity.

Morocco's migratory species of wild fauna face many pressures, in particular land conversion to increasingly intensive agricultural use, demographic pressure, development of urban centres, overgrazing and drought. The country therefore took a strong lead in signing and ratifying international conventions and treaties relating to the conservation of nature and biodiversity, including CMS which it joined in 1993. The High Commission for Water Resources and Forests and on Combating Desertification was designated as the national focal point for the Convention.

Over the ensuing decade, the country has taken further steps to align itself with four CMS instruments; the Memorandum on the Conservation of the Slender-Billed curlew (1995), AEWA (1997, and currently in the process of ratification), ACCOBAMS (signed in 1997 and ratified in 1999) and the Memorandum on the Conservation of Marine Turtles (2002). The Memorandum on the Conservation of the Monk Seal is in the process of being examined with a view to signature.

Since overall ratification of CMS in 1993, Morocco has participated in all of the Conferences of the Parties (COPs). At COP6 held in Cape Town, South Africa in 1999, Morocco was elected by fellow African countries as substitute member of the Permanent Regional Committee and later became Africa's regional representative and Vice-President to the same Committee for COP7, held in Bonn in 2002. At national level, the focal point institution has spearheaded a number of actions that apply the provisions of the Convention and strengthen legal instruments for conserving natural resources. Many of these actions also fulfil the country's responsibilities under other international conventions, among them UNCCD and the Ramsar Convention.

Most notably, steps have been taken to create a structure entrusted with monitoring, managing and conserving the wild flora and fauna, particularly migratory species, and a plan of direction for protected areas as a strategy of conservation of habitats for migratory species of wild fauna was developed in 1996. National legislation on protected areas, taking into account the provisions of CMS, is currently at an advanced stage of preparation.

Several species that had disappeared from Morocco are now being rehabilitated in national parks and reserves, especially the oryx, the addax, the red-necked ostrich, the Barbary deer and the dama gazelle. Reserves have been specially created for conserving Dorcas gazelles, Cuvier's gazelles and Barbary sheep, while a number of important protected areas have been designated, covering a representative range of the country's ecosystems.

Dorcas gazelles in Niger.
© John Newby/SSIG

For all migratory animals, crossing geopolitical boundaries is a risk, seeing that different standards for implementing environmental policies apply in each country through which they pass. For many land mammals, boundaries of a physical nature create a more immediate hazard. Fences erected to protect crops or to stop epidemic diseases from spreading between wild and domestic herd animals have, for example, severely impeded migratory movements of elephants and antelopes in much of Africa.

Loss of natural habitats and ranges through land conversion, degradation, or both, is another problem which – though it affects many kinds and classes of migratory animals – can have particularly direct and acute impacts on migratory land mammals.

Antelopes, gazelles and other wild ungulates living in remote and sparsely inhabited desert and semi-desert terrains might be expected to escape heavy pressures from human activities. But the very openness and lack of vegetation that gives these landscapes their bare and inhospitable character can lay them open to mechanised poaching raids involving all-terrain vehicles and automatic weapons. Whether the intent of the poacher is unlicensed sport hunting or commercial hunting and smuggling for the animal parts or bushmeat markets, these illegal practices

Wild or Bactrian camel

A native of China and Mongolia, the Bactrian camel has been sorely persecuted by hunters. It has also had to contend with competition with domestic herd animals for water and pasture, pollution arising from oil and gold extraction and prospecting activities, the settling of oases by formerly nomadic groups of pastoralists and hybridisation with domestic camel stock. CMS is co-operating with the Governments of China and Mongolia and with the Wild Camel Protection Foundation on an ambitious array of conservation and sustainable use projects.

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Snow leopard

The Snow leopard spends its solitary life on the move across a range of over 1.2 million km² and at altitudes of 2500 to 6000m in the harsh and rugged mountains of Central Asia. Habitat loss, poaching and a steep decline in numbers of prey species have reduced its numbers to an estimated 3000-7000 wild individuals. Military conflicts in parts of its range have added to these pressures and to the difficulties of sealing agreements on conservation measures. Nevertheless, CMS and the 12 Range States are conferring with other bodies, including CITES and the International Snow Leopard Network, on ways forward to Concerted Action.

© Joe Fox/International Snow Leopard Trust

Bats

Nearly 1100 species of bats exist worldwide – nearly a quarter of all mammal species – with some 45 species known to occur in Europe. The most immediate threats to them nowadays arise from degradation of the places where they live, disturbance of roosting sites and certain pesticides. The CMS Agreement on the Conservation of Populations of European Bats (EUROBATS) has achieved new and improved legal protection standards for bats. It has done much to dispel outdated misconceptions and prejudices about these harmless fellow occupants of our buildings and forests (see opposite).

© F R Greenaway

remain a stubborn obstacle to the survival not only of vanishingly scarce ungulates like the addax but also of conspicuous endangered dryland birds like the Houbara bustard.

In many cases, local people become involved in these practices or facilitate them not because they condone them but because their circumstances leave them little choice. Given a wider range of more sustainable livelihood options, most local people would keep faith with sustainable practices, including traditional 'lo-tech' hunting methods.

MOUNTAIN GORILLAS

The Mountain gorilla (*Gorilla gorilla beringei*) was spotted for the first time in Central Africa almost exactly one hundred years ago by German explorer, Oscar von Beringei. These charismatic apes are wide-ranging migratory browsers, yet over recent decades they have been almost constantly on the retreat from poaching, human conflict and habitat loss. MELANIE VIRTUE of UNEP's Great Apes Survival Project explains how over the past 13 years the Mountain gorilla has not only managed to hold its ground but has risen in numbers, thanks to regional conservation initiatives that have involved CMS and many partners.

Today some 650 Mountain gorillas remain at large in Bwindi National Park and Mgahinga National Park in Uganda, Volcano National Park in Rwanda and Virunga National Park in the Democratic Republic of Congo, clustered around the Virunga Mountains. Habitat loss has been the most serious pressure on gorilla numbers. The dense and diverse forests that surround the Virungas lie over rich volcanic soil, highly sought-after for farming. As more and more people have settled around the Virungas, land has increasingly been converted to pastures and fields, forcing the gorillas to withdraw further and further onto the high ground, and limiting their migratory habit.

Mountain gorillas build new nests each day at dusk, constructing them from bent branches or from grasses on the ground, then move on at dawn to new areas of forest. As they often cross borders in the process, transboundary collaboration is essential to conservation and anti-poaching activities. Poaching has thrived on trade in gorillas and gorilla body parts for the trophy and curio trade but has proved unsustainable and destructive. Poachers kill adult specimens to sell their heads and hands, or capture infant gorillas for zoos, tearing apart entire family groups. In addition, gorillas frequently fall prey to poachers' snares or traps set for forest antelopes or other game.

In the 1970s, UNESCO joined forces with WWF and other organisations on a 'People and Plants' project, promoting sustainable use of plants in Bwindi National Park. At around the same time The Democratic Republic of Congo became the first nation to successfully develop gorilla tourism. A regional conservation programme was launched in 1979, aimed at maintaining virgin forest for watershed protection in all three countries, and at habituating some groups of gorillas to tourist visitations. All these moves helped ease encroachment on natural forests. But they could do nothing to avert waves of armed conflict and civil unrest that swept the region in the 1990s.

Amid the general lawlessness that ensued, prospects for the Mountain gorilla and for the region's other natural riches looked bleak. Yet though tourism was driven away gorilla numbers actually rallied, rising by some 9 per cent above pre-conflict levels.

This turnaround was owed largely to conservation efforts continued under the International Gorilla Conservation Program (IGCP), a joint venture of the African Wildlife Foundation (AWF), Fauna & Flora International (FFI) and the World Wide Fund for Nature (WWF). ICGP set out in 1991 to conserve Mountain gorilla habitats, enable participation of rural communities, and develop economic alternatives to poaching and encroachment on natural forest ecosystems in all three range countries.

It will take time before security can be restored to a level sufficient to attract ape-watching enthusiasts back to the Virungas in numbers. But conservationists remain confident that conserving Mountain gorillas is a prize that its host countries can grasp.

© Mark Attwater/GRASP

Great Apes Survival Project

CMS endorses UNEP's Great Apes Survival Project (GRASP), specifically in relation to the Mountain gorilla, a species that has been listed on the Convention's Appendix I since it was first drawn up in 1979. Resolutions of the Convention's COP5 in 1997 and COP6 in 1999 called for urgent action to be taken to protect the gorillas throughout their range. Two Range States of the Mountain gorilla are Parties to the Convention – the Democratic Republic of the Congo since 1990 and (since 2000) Uganda. Both pledge under Article III to strive to conserve and restore gorilla habitats, to counter obstacles to migration and to curb other threats to the species. Rwanda, which will soon become a Party, may take steps to join them in using the CMS framework and the new dynamic offered by GRASP to advance these moves.

NEW CHAPTER IN EUROBATS SUCCESS STORY

The Agreement set up under CMS on the Conservation of Populations of European Bats (EUROBATS) entered into force on 16 January 1994 and nearly 30 European Range States were Parties by 2004. The Agreement aims to protect some 45 of Europe's bat species through legislation, education, conservation measures and international co-operation between Parties and those Range States that have yet to join the Agreement. PETER LINA, Chairman of the Advisory Committee to the Agreement, tracks its recent progress, which owes much to the NGO connection.

All European bat species are to a greater or lesser extent endangered with extinction, and some are already extinct in certain countries. The main reasons are loss of roosts, loss of feeding areas and flight paths, and the use of pesticides in agriculture and for treating construction timber. Misunderstanding and prejudice arising from ignorance about bats – and even some kinds of research activity – also form part of the problem.

In 1995, the First Session of the Meeting of Parties (MOP) to the EUROBATS Agreement compiled an international Action Plan, and an Advisory Committee was set up to carry forward this plan between MOPs. Its main tasks are monitoring and international activities, largely through Working Groups that look after particular studies and conservation projects. Invited delegates of NGOs and specialists in bat conservation and management are able to take part in the MOPs and the Advisory Committee. The Committee has developed draft resolutions for adoption by the MOP on such topics as monitoring methodologies, conservation of important underground bat habitats, bat-friendly forest management techniques, the use of remedial timber treatment, threats to bats from wind turbines and the issue of permits for the trapping and study of captured wild bats.

The EUROBATS Secretariat was established by the First Session of the Meeting of Parties and started working in Bonn (Germany) in 1996, sharing premises with the CMS Secretariat. It promotes information exchange, coordinates bat research and monitoring initiatives, arranges MOPs and Advisory Committee sessions, and stimulates proposals for improving the effectiveness of the Agreement and attracting more Range States to participate and join the Agreement. It also strives to alert the general public to the threats to bat populations in Europe through popular events like the European Bat Night, held in several European countries every year, mainly in August. Over a weekend excursions, exhibitions and information materials are offered to the public in cities and towns all across Europe.

Many national and local organisations are devoted to the study and the protection of bats and their environment. Some of them organise their own events to improve public awareness of bat conservation. The Fourth MOP, held in Sofia (Bulgaria) in September 2003, recognised the important role NGOs can play in bat conservation, not least through their voluntary monitoring and data collection activities. NGO groups have worked together on national or international projects but have so far lacked a pan-European umbrella alliance along the same lines as BirdLife International or PlantLife Europe. The Sofia Meeting resolved to encourage activities to collaborate and share experience along such lines.

A proposal at the Ninth European Bat Research Symposium, held in Le Havre (France) in August 2002, established BatLife Europe as an umbrella NGO for bat conservation throughout Europe, open to all interested groups. BatLife Europe and BirdLife International's European division may well find they have common interests in some areas and it is hoped that co-operation will follow on (for instance) bats, birds and wetlands. BatLife Europe can also raise funds for transboundary bat care projects and contribute to the scientific programme of EUROBATS. Such interaction between governments and NGOs acting in their varying capacities is expected to lend an essential boost to the fuller implementation of EUROBATS.

Troubled waters

Because the problems they face often occur far out of sight of land, marine mammals and large fishes listed in the CMS Appendices represent special challenges. CMS has framed a regional approach around Agreements on small cetaceans (toothed whales, dolphins and porpoises) in the Baltic and North Seas (ASCOBANS) and on all cetaceans in the Black and Mediterranean Seas and nearby Atlantic waters (ACCOBAMS).

The most urgent threats facing these species are incidental capture in fisheries, physical disturbance and pollution. The conservation plans of both Agreements provide, among other things, for assessing human-cetacean interactions, providing for emergency response measures, establishing protected areas and reducing interaction with fisheries. They also encourage whale-watching activities, a non-consumptive use which has proved feasible and sustainable elsewhere, notably along the coasts of Argentina, South Africa and Mexico. When female whales migrate to these coasts from cold water areas to give birth they provide a spectacular ecotourism attraction which keeps many service enterprises afloat, creating jobs and livelihoods for people who would otherwise expect to find few income-generating alternatives.

Another keystone Agreement concerns seals in the shallow eastern fringe of the North Sea known as the Wadden Sea (see overleaf). It was concluded as the first CMS agreement after an epidemic in 1988 wiped out 60 per cent of the region's Harbour seals. The seal population has since regained pre-epidemic levels and – although still subject to diseases – the seals are no

Whale shark

The Whale shark is the biggest of all fish, growing up to 14m long. A harmless plankton-eater, it wanders the tropical oceans from the equator to around 30-40° latitude. In recent years its numbers have tumbled, mainly as a result of trade in shark meat and fins for use as a gourmet food, particularly in Asia. CMS is promoting multi-country action for whale shark conservation and is nurturing a Memorandum of Understanding to tackle such threats as fisheries bycatch and illegal trade.

longer threatened with extinction.

Besides marine mammals, there are CMS Memoranda of Understanding covering marine turtles, one for the Atlantic Coast of Africa and the other for the Indian Ocean and South-East Asia (IOSEA). Part of the problem is excessive harvesting of turtles and turtle eggs by local people whose sources of high-protein food are limited. Other major problems are fisheries bycatch, degradation of coastal environments and marine pollution. Little is known about the lives of turtles in the open ocean. CMS sponsors surveys of key nesting

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Pacific Leatherback turtles

The dramatic decline in numbers of Pacific Leatherback turtles over the past two decades – amounting to a loss of 95 per cent of the female nesting population – is due in part to over-harvesting of eggs by local people who lack other sources of protein. CMS is working with countries around the world to put in place management systems that aim to benefit people as well as turtles, and to reduce fisheries bycatch. The Pacific Leatherback is covered by the IOSEA Memorandum of Understanding that links the efforts of CMC Parties around the Pacific to conserve various endangered marine turtles, one of Earth's most ancient life-forms.

TROUBLE IN SIGHT FOR AFRICA'S DOLPHINS

In Peru, Sri Lanka, and Taiwan the loss of small cetaceans to bycatch has evolved into direct targeting of marine mammals as food, following the collapse of fish stocks. New CMS study findings raise the spectre of a potential 'marine bushmeat' crisis in Africa, compounded by a boom in live captures of Bottle-nosed dolphins for export to leisure enterprises. KOEN VAN WAEREBEEK, P.K. OFORI-DANSON and JOSEPH DEBRAH report on studies in West Africa that highlight the need for more and better management measures to safeguard dolphins and other small cetaceans from these emerging threats.

The main aim of the study in hand (CMS/WAFCET 3) was to monitor dolphin takes off Ghana and Togo. Earlier, exploratory efforts indicated that important numbers of dolphins were being landed in fishing ports of western Ghana, in clear violation of the country's Wildlife Conservation Regulation No.1971 which protects marine mammals. 'Artisanal' drift gillnetters target several species of tuna, shark and billfish and dolphin captures used to be merely accidental entanglements. But with declining fish landings and shrinking fish size, many more dolphins are now speared, harpooned or netted and hauled in alive and bycatch is slowly turning into more systematic exploitation. Carcasses are expertly gutted and dolphin meat is treated like tuna, smoked and marketed both locally and in the hinterland. Specimens that cannot be sold are salted and used as fish bait. The core of the problem is lack of any management scheme or an adequate nationwide system to log statistics on dolphin landings.

Ghana's fishermen operate widely in the sub-region, from Senegal south to Gabon and probably beyond. Wherever they roam, fishermen propagate fishing skills, and so export the potential for unsustainable utilisation elsewhere. Tropical pelagic dolphins are mainly affected, as well as small 'whales' like Short-finned pilot, False killer, Pygmy killer, Melon-headed, Pygmy sperm and Cuvier's beaked whales. Data analysis is still underway, but annual mortality in Ghana alone is expected to exceed the upper hundreds. The biology of all these populations has yet to be studied, and impacts cannot be judged without abundance estimates.

In the case of inshore Bottle-nosed dolphins, a novel threat has emerged in the form of indiscriminate removals, both legal and illegal, for the captive industry. Fast economic growth in Asia, especially China, is generating persistent demand for western-style commercial recreational facilities, including dolphinariums with shows and swim-with-dolphin 'programmes'. Unwary officials who issue export and import permits, seem easily tricked into believing these removals do no harm to wild populations. Official 'non-detriment' statements required under CITES are often rudimentary and rarely reflect up-to-date science.

The international live dolphin trade from wild issue is fiercely commercial, expanding, and very impatient in the face of regulations. Captive-born bottlenose dolphins are available from long-established facilities in Europe and North America, but removing specimens from the wild proves vastly more lucrative considering locals earn only a pittance. A pattern is emerging whereby unscrupulous wildlife traders target nations experiencing political or economic crisis, where social unrest makes it easier to obtain catch and export permits, uncurbed by any thorough review process.

Bottle-nosed dolphin bycatches and direct kills for food are significant and coastal habitat is degrading fast. The effect of these pressures compounded by commercial live captures could endanger populations. A need exists for technical support from the cetacean expert groups of international institutions like the IWC and IUCN, to be made available to national authorities to evaluate live capture proposals before permits can be issued, possibly channelled via the CMS and CITES Secretariats. Importing countries need to share greater responsibility for ensuring sound criteria are obeyed. More generally, the keys to successful management at national level will be sustained monitoring and flexible planning.
A broader challenge will be to foster a regional, if not a pan-African vision, superimposed on a national approach.

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THE WADDEN SEA SEAL AGREEMENT – TURNING THE TIDE FOR CONSERVATION

For centuries, Harbour seal (*Phoca vitulina*) populations in the Wadden Sea have been under threat from human activities. Hunting was the main danger in the past but today disturbance, degradation of habitats, pollution and incidental capture in fishing gear are mostly to blame. BETTINA REINEKING of the Common Wadden Sea Secretariat looks back over 13 years of the trilateral Agreement that sealed the first CMS success.

The Wadden Sea seal population slumped in the mid-1970s to about 3900 individuals – the lowest number ever logged. A ban on hunting was introduced in all three Wadden Sea countries (Denmark, Germany and The Netherlands) and as a result seal numbers stabilised and in places began to rise. But this positive development was short-lived. A dramatic epizootic (animal disease epidemic) broke out at the end of the 1980s caused by the highly infectious phocine distemper virus (pdv). By 1988, the seal population had slumped by about 60 per cent. It happened again 14 years later, once more reducing the seal population to dangerously low figures. Yet in the meantime a positive new factor had entered the equation.

In October 1991, an Agreement was struck between Denmark, Germany and The Netherlands on the Conservation of Seals in the Wadden Sea. It was the first regional Agreement under CMS and its aim was multi-country co-operation to improve the conservation prospects of seals in the entire sea area. It could not have come at a better time. After the first pdv epizootic, between 1988 and 2002, seal numbers rallied significantly. Aerial surveys of the whole Sea in 2002 counted some 20,975 seals, of which about 4735 were pups. This comeback was attributed to a higher reproductive rate and lower initial juvenile mortality. But later that same year pdv struck again and half the Sea's seals (about 10,500) were found dead

One year later, however, the maximum number of surviving seals counted during the moult period in August 2003 amounted to some 10,800 seals. In other words the population was 53 per cent below pre-outbreak levels. Though in absolute numbers more seals died than during the earlier epizootic of 1988, the evidence showed that relative mortality was much lower this time around. It was widely acknowledged that the Agreement played a part in turning the tide.

The Agreement required Parties to develop on the basis of scientific knowledge a 'conservation and management plan for the seal population' – the Seal Management Plan. This Plan has become the key instrument for achieving and maintaining the objectives of the Seal Agreement. Among other provisions, it set up seal reserves throughout the Sea which are closed to all activities in periods when the animals are giving birth and nursing young. It also includes measures for protecting the Grey seal (*Halichoerus grypus*) in the Sea.

A rise in seal populations may run the risk of conflict with fishermen and other commercial users. It may also challenge the current reserve system if additional reserves are needed to cope with growing numbers. Research projects on the feeding ecology of Harbour seals, and investigations of habitat requirements of seals in relation to recreational demands are the top two priorities for implementation under the revised SMP for 2002-2006 (available on the CWSS web-site at http://www.waddensea-secretariat.org/).

The Plan remains an essential tool for heading off potential future conflicts of interest in an area which must also accommodate water sports activities, military exercises and aircraft movements that cause noise disturbance. It aims to strike a balance between managing the area for these and similar human uses, and conserving viable stocks of seals in sufficient numbers to maintain a natural breeding cycle.

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beaches, assessments of turtle bycatch and capacity building through training workshops and by other means. Starting at a regional level with an emphasis on the requirements of developing countries, the Convention works towards a global approach for conserving marine turtles in ways that also help people.

Sturgeon are fish that migrate in or between marine, brackish and inland waters in many parts of the temperate Northern hemisphere. They form another focus of current efforts on the part of CMS to curb unsustainable trade in products derived from migratory animals. Caviar (sturgeon roe) is a luxury taste, yet if sustainably produced it can be a precious asset to local economies, national exchequers and international trade. Other fish of concern to CMS are the Whale shark and Giant Mekong catfish. It is widely recognised that most of the world's marine fisheries are exploited to an unsustainable degree. Vast numbers of non-target species, including migratory animals, are captured incidentally in gill nets, trawls and long-lines, then discarded. Such bycatch threatens not only non-target fish but also small cetaceans, several kinds of marine turtles and diving

Amazonian manatee

One of the largest mammals on the South American continent, the Amazonian manatee is also the world's only exclusively freshwater sirenian. This big (up to 2.8m long) and highly elusive herbivore migrates along the basins of the Amazon and its tributaries, crossing the borders of Peru, Bolivia, Ecuador, Colombia, Venezuela and Brazil. Like other Amazonian wildlife, it has suffered from unsustainable exploitation of rainforest areas, commercial hunting, and pollution of their wetland habitats as a result of gold mining and oil drilling activities. In Colombia and Ecuador an additional threat is aerial spraying of herbicides as a means of suppressing narcotics (coca) production. The manatee's long gestation period and low rate of reproduction mean that populations lack scope to recover from such impacts, even though the species is officially protected in most of its Range States. A proposal by Peru to award the manatee priority status under CMS is under discussion and could pave the way to concerted action by all these states to develop and implement active conservation measures.

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seabirds such as albatrosses and petrels (page 14). A recent survey showed that fishing implements used without safety devices kill some 18,000 whales, dolphins and porpoises every year, in EU Atlantic waters alone.

Humpback whale

Humpbacks travel in all the world's oceans. Most migrate from summer feeding grounds in polar seas to warmer waters nearer the Equator where they breed in winter. Humpbacks are listed in Appendix I of CMS. Small numbers visit the Mediterranean and the Black Sea, where they are protected under the ACCOBAMS agreement (see opposite) but all populations remain in decline on account of deliberate hunting, entanglement in fishing nets, depletion of prey species, chemical pollution and long-term environmental change. Another threat which affects all cetaceans is noise pollution. Human-created noise in the marine environment, from shipping and military activities to fisheries anti-predation devices and seismic air-guns used to prospect for undersea oil or gas deposits, can interfere with key aspects of cetacean behaviour – not least food location, navigating and social interactions vital to breeding cycles.

Humpback whale mother and calf, Pelorus Island, Australia.

STANDING UP FOR CETACEANS

Marine biologist PETRA DEIMER of the Society for the Conservation of Marine Mammals (GSM) explains why the world's whales, dolphins and porpoises need transboundary protection – protection that only CMS and ASCOBANS can provide.

Whales are flagships of international nature conservation, species conservation and animal conservation. This is no accident. These impressive and peaceable marine mammals are unable to fight for their survival, not least because most of the over 80 species of cetaceans have no natural enemies. Man, their only serious enemy, came into their lives at a late hour from an evolutionary point of view. But many species, notably the large whales, have been driven to the brink of extinction by humankind's excesses. They stand in urgent need of help.

In 1937, the International Convention for the Regulation of Whaling, also known as the IWC (International Whaling Commission) was concluded to prevent the whaling industry from dying out, along with the last of the whales. Even so, like CITES, this instrument focuses primarily on commercial aspects. Whales have long since been in need of cross-cutting, comprehensive protection measures to tackle the many other factors that menace them, not least habitat destruction, pollution, fisheries, shipping and new threats such as climate change.

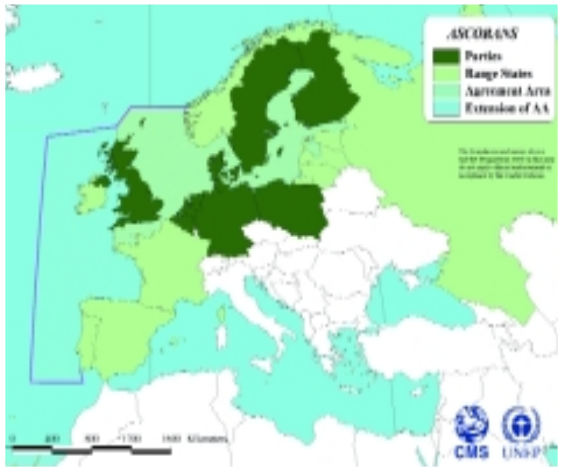
NGOs like GSM therefore welcome the fact that the Bonn Convention obliges its Parties to engage in conserving and restoring habitats and tackles regional problems in the framework of regional agreements. Two such agreements on cetaceans have been concluded: ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas) and ACCOBAMS (Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contigous Atlantic Area). Further agreements will hopefully follow, for instance for whales in the South Pacific and South Atlantic, where the IWC's efforts to establish protected areas are currently stalled.

Since its launch in 1991, the eight Parties to ASCOBANS with active inputs from NGOs like GSM, International Fund for Animal Welfare (IFAW), Whale and Dolphin Conservation Society (WDCS) and WWF, have identified a range of threats caused by human activities that dolphins, and porpoises – no less than the larger whales – encounter during their seasonal migrations between breeding, feeding and over-wintering ranges. Marine pollution and acoustic disturbance give growing cause of concern, while bycatch is considered the most serious threat.

The Harbour porpoise, one of the smallest cetaceans, could be called the real 'problem child' of the ASCOBANS region. In 2002, ASCOBANS developed a Recovery Plan for the Baltic Harbour Porpoise, which is in danger of extinction. Known as the Jastarnia Plan, it recommends steps to replace dangerous fishing gear with less dangerous equipment; that is, drift nets with long lines and bottom-set gill nets with fish traps or fish pots. It also urges greater public awareness. This is an endeavour that NGOs can help with. Since 2002, GSM has been asking mariners to report porpoise sightings for publication under ASCOBANS, to help defend the recovery plan as well as to fulfil obligations like the declaration of reserves under the EC Habitats Directive. The third Sunday in May has been declared Baltic Harbour Porpoise Day and NGOs take a lead in staging special events around the Baltic on this day.

The situation does not seem to be quite so bad for the Harbour porpoise in the North Sea, even though the annual kill caused by the fishing industry is estimated to be beyond the powers of recovery of its remaining breeding populations. Germany has taken the initiative in preparing a draft recovery plan for the North Sea Harbour porpoise. Independently of ASCOBANS, further measures are to be taken under the Common Fisheries Policy (CFP) of the European Union. To date, however, none of the Parties to ASCOBANS feels in a position to implement the Jastarnia Plan. In the long term, the Agreement's aims will only be achieved if these are integrated into fisheries policies. Other threats from human activities not related to fisheries, such as pollution and disturbance, will also require energetic attention.

The extension of the ASCOBANS area to cover parts of the Eastern North Atlantic, as resolved at the Fourth Meeting of the Parties, will create the long-awaited link between the ASCOBANS and ACCOBAMS agreement areas, thus creating a unified front for cetacean conservation throughout Europe. A logical next step would now be for UNEP/ASCOBANS to follow the example of ACCOBAMS by extending the Agreement's scope to cover not only small cetaceans but all species of whales, dolphins and porpoises.



ACCOBAMS ACTION PLAN IS READY TO ROLL

NICHOLAS ENTRUP of the Whale and Dolphin Conservation Society (WDCS) outlines planning advances that will spur multi-country actions under ACCOBAMS.

ACCOBAMS is the second Agreement for cetaceans to be sealed under CMS and the first of its kind to bind the countries of these two sub-regions to work together on issues of common concern. The Agreement, which entered into force in 2001, aims to promote close co-operation amongst Parties to achieve and maintain a favourable conservation status for all species of cetaceans in the Agreement area. Significantly, membership is also open to non-coastal States ('third countries') whose vessels engage in activities that could harm cetaceans in that area.

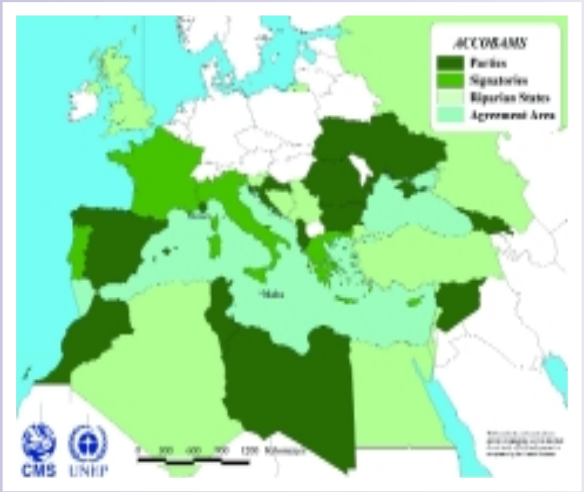
ACCOBAMS applies to all cetaceans whose range lies entirely or partly within the Agreement area. The latter includes the Atlantic coasts of North Morocco and South Portugal as well as Black Sea and Mediterranean coasts and waters. Species that accidentally or occasionally frequent the area are also covered. Three cetacean species, isolated from their Mediterranean populations, occur in the Black Sea and at least 18, many of them genetically distinct from their Atlantic counterparts, are known to inhabit the Mediterranean Sea.

Many ecosystems within and around these waters have been heavily modified and disturbed, mainly as a result of pollution, coastal development, constant vessel traffic, over-fishing and impacts of introduced species. Though pelagic species such as Sperm whales and Striped dolphins can be badly hit by the impacts of fisheries and shipping, human activities often apply the most intense pressure to coastal species, such as common dolphins. In some areas a dramatic decline in populations of these species has been monitored over recent decades.

ACCOBAMS requires its Members to implement a comprehensive conservation plan and to enforce legislation to prevent the deliberate taking of cetaceans in fisheries by vessels under their flag or within their jurisdiction, and to minimise incidental catches. Work on a comprehensive conservation and management Action Plan has recently been completed. It obliges all Parties to:

- adopt and enforce national legislation;
- assess and manage human-cetacean interactions;
- protect cetacean habitat;
- undertake research and monitoring studies;
- build capacity, share information and skills;
- respond to emergency situations.

From the beginning, ACCOBAMS has involved in its work most of the Range States in the Agreement area and has also developed close links with NGOs and scientific institutions, granting these stakeholder bodies the status of 'ACCOBAMS Partner'.



A safer world for birds of passage

Bird migrations are arguably the best-known and most spectacular of all animal journeys. Many species migrate from high latitudes to the tropics and beyond. The Arctic tern migrates practically from pole to pole, flying to the Antarctic after breeding in the Arctic, year-on-year. Where threatened or endangered species are concerned, aerial odysseys on this scale truly require conservation across continents. For single species and for lesser journeys a more pinpoint approach is often called for and the provisions of CMS allow for conservation measures to be scaled accordingly.

The largest Agreement developed so far under CMS focuses on waterbirds. The African-Eurasian Waterbird Agreement (AEWA, see page 15) covers 235 species of migratory birds and promotes a flyway approach unique among multilateral environment agreements. AEWA involves 117 countries in Europe, parts of Asia and Canada, the Middle East and Africa. Its geographic coverage extends from the northern reaches of Canada and the Russian Federation to Africa's southernmost tip.

Another crucial CMS achievement in the making is ACAP, the Agreement on the Conservation of Albatrosses and Petrels (see page 14) in the Southern Hemisphere, which entered into force in February 2004. Other flyway agreements are in the pipeline, including an instrument for conserving waterbirds along the Central Asian Flyway. A new instrument on migrant birds of prey is also under discussion. In addition to such wide-ranging tools, some of the world's rarest birds are covered by CMS regional Agreements in the form of MoUs dealing with single endangered bird species.

With the aid of the Convention, the relics of once mighty populations of the Siberian crane are benefiting from captive breeding and the release of young birds, which are taught their traditional migratory routes by hang-glider pilots. The Siberian crane MoU has attracted a

Andean flamingo

The Andean flamingo occurs in the high Andes regions of Argentina, Bolivia, Chile and Peru. Like most flamingos it prefers to feed and breed on large shallow lakes or lagoons, including some inhospitable places where waters are strongly alkaline and saline. Since the mid-1980s numbers of this species have gone into a steep downward slide and are presently thought to stand at around 26,000. Since 1992, the breeding success of the Andean flamingo's colonies in Northern Chile has been close to zero. Extended droughts, mining activities, predation, erosion of nest sites and hunting have all been cited among the causes. An MoU for conservation of the Andean flamingo in all four of its Range States exists in draft form, based on regional workshops involving CMS and a series of bird censuses undertaken since 1998.

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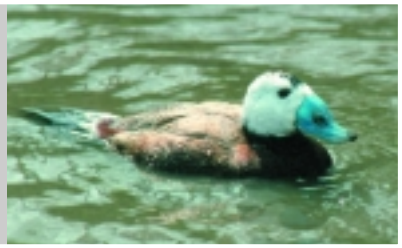
White-headed duck



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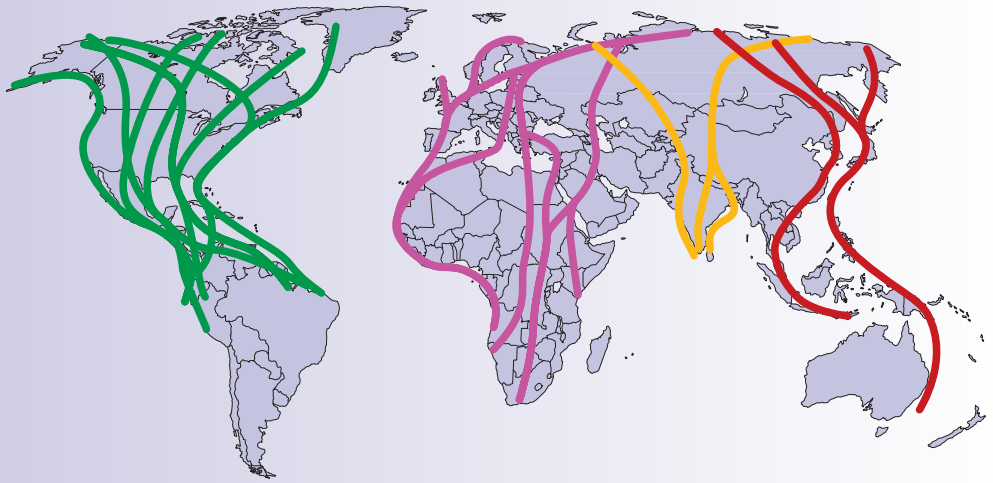
The White-headed duck is a CMS Appendix I listed species that ranges over parts of Central Eurasia and North Africa. In the past decade its populations, especially in Central Asia and South Asia, have declined sharply to an estimated 10,000 specimens. It has been identified by the Sixth Conference of the Parties to CMS as a priority species for international protection. This bird's lifestyle is closely linked to shallow, transient types of wetland and seasonal marshland, hence its choice of breeding, feeding, moulting and wintering sites (and of stopping-places *en route* between them) is highly prone to environmental change and loss of habitat. Drought in the Central Asian region over the past several years has left few such wetland areas intact and unsustainable use of freshwater resources has multiplied the problem.

The flyway concept

Flyways are broad corridors regularly travelled by migrating birds, conceived of as aerial highways. Four major flyways have been defined in Europe and Asia and four in the Americas. These split up into a number of alternative routes and some species or individuals can cross from one flyway to another. Some birds are thought to fly the whole journey in one flight but most rest along the way at stopovers or staging areas, which may involve significant detours. Although other flying animals, such as some bats or butterflies, use flyways, the concept is more conventionally applied to migratory birds, especially migratory waterbirds.



grant of over US$10 million from the Global Environment Facility (GEF) to enable six years of work on conserving an international network of wetlands on which these birds, and many others, depend. The Slender-billed curlew, one of the rarest of all migrants, is the subject of urgent efforts under CMS to discover its last winter refuges and where it breeds in the vastness of Eurasia.

The challenge of conserving the spectacular Great bustard under a CMS MoU is to manage modern agriculture throughout its range in Central Europe. Another single species covered under CMS, the Aquatic warbler, is a small songbird which entirely depends on a dwindling number of sites of a particular wetland type in Europe. Fortunately, most of its key Range States have now signed up to conserve it, using the instruments of the Convention.

The outlook for the Houbara bustard is far less encouraging. Despite recommendations passed at inter governmental meetings since 1996 this large bird continues to be illegally hunted in the deserts and drylands of North Africa and sub-Saharan Africa. As a result of increasingly systematic and unsustainable hunting practices involving automatic weapons and all-terrain vehicles, the Houbara bustard is in danger of extinction in all its Range States. An Agreement and Action Plan have been proposed but has yet to come to the negotiating table.

ACAP – A LIFELINE FOR OCEAN NOMADS

BARRY BAKER, who heads the interim Secretariat of ACAP, a new CMS Agreement for protecting albatrosses and petrels, foresees fresh hope for these spectacular seabirds

Albatrosses and petrels are top-order predators of the marine ecosystem, roaming vast areas of the high seas. Yet despite this largely uncharted existence they are threatened globally both at sea and on land. Threat factors at sea include direct contact with fishing operations, consumption of (and entanglement in) marine debris, contamination by pollutants, and excessive commercial fishing of natural prey species. In breeding colonies, the birds are menaced by predators, particularly feral pests, and by introduced herbivores which damage their nesting habitat. They must also contend with parasites and diseases as well as competition with other animals for nesting sites.

The Agreement on Conservation of Albatross and Petrels in the Southern Hemisphere (ACAP), is the latest in a line of instruments for conserving marine life formed and agreed under CMS, offering hope of a brighter future for these spectacular seabirds. It owes its beginnings to the successful nomination and listing by Australia and South Africa of 17 albatross and petrel species on the Appendices of CMS. ACAP's development has since been remarkably swift. The critical conservation status of these species helped ensure that it took only two sessions to develop the Agreement, which was opened for signature in June 2001 in Canberra, Australia.

Signatories now include Argentina, Australia, Brazil, Chile, Ecuador, France, New Zealand, Peru, South Africa, Spain and the UK. Of these, Australia, Ecuador, New Zealand, South Africa, Spain and the UK have also ratified ACAP, ensuring its entry into force in February 2004 and enabling the first meeting of the Parties to be convened later this year.

AEWA – LARGEST FLYWAY CONSERVATION INSTRUMENT STILL GROWING

GERARD BOERE, International Programme Co-ordinator for Wetlands International, traces the growth of the African Eurasian Waterbird Agreement (AEWA), the largest Agreement under CMS in terms of its geographical and species coverage

The first Conference of the Parties of the Bonn Convention in 1985 agreed to start assembling a few relatively simple – and Eurocentric – agreements to build up experience with the Convention, among them a Western Palaearctic Anatidea Agreement for ducks. This move was seen a way to spur on international co-operation in managing and sustainably harvesting waterbird populations and to ease the antagonism that then seemed to exist between the hunting and conservation communities. From 1988 onwards, The Netherlands offered solid assistance to the work of CMS in general and the Anatidae Agreement in particular.

The latter, with its relatively limited geographical and species range was – however – soon seen as too restricted. Over time, the whole flyway of the Western Palaearctic was included in the work as well as all waterbird species. The former UNEP Executive Director Dr M.K. Tolba suggested a complete change of name and more emphasis on the African and Asian component in the flyway. This change served to stimulate North-South dialogue and highlight the need for sustained support to African and Asian countries interested in taking responsibility for the millions of waterbirds migrating through or wintering in their countries.

With financial support from the Dutch Government a number of important steps were taken including an expert workshop in The Netherlands (1991), informal consultations with all Range States in Nairobi (1994) and a final diplomatic conference in The Netherlands in 1995. The whole process was supported by background information provided by Wetlands International and BirdLife International, which developed the first drafts of the Action Plan for the Agreement. IUCN (The World Conservation Union) and the late Cyrill de Klemm assembled AEWA's first legal text. Over the years opposition from hunting interest groups vanished as it became clear that AEWA would not mean further limits on hunting other than of endangered and vulnerable species, already common policy in many countries and in the EU under the Birds Directive.

From 1996 through early 2000, The Netherlands provided the Interim Secretariat and started a number of developments towards practical implementation. Conservation guidelines were developed, populations monitored via the International Waterbird Census (coordinated by Wetlands International) and analyses made of species for future addition to the Agreement. Using AEWA as the legal instrument, countries developed support programmes on a bilateral and international level. In particular, The Netherlands, France and the UK were – as they still are – active in various regions of Africa. After the First MOP in South Africa in 1999, a permanent Secretariat was set up in Bonn. Rapid increase in the number of Parties provided the necessary financial impetus to start programmes aimed at concrete actions in such areas as the impact of large scale coastal fisheries on wintering areas of waders.

Today, AEWA's international importance is growing rapidly. Nearly 50 countries are already Members and many more are ready to join in the near future. It is often cited as the best example of how almost 120 countries can work together, in a practical way, to protect species and habitats. This record owes much to the attachment of an Action Plan to the necessary legal text, a way to underpin multilateral co-operation with a down-to-earth work agenda.

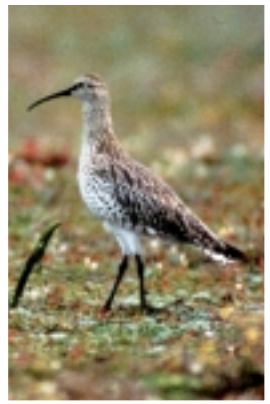
In future, data collection within Africa could be boosted through the African Waterbird Census and training of field observers. Coordinated ringing programmes are planned, to track waterbird movements within Africa, of which almost nothing is known. Much attention will be paid to the protection, including sustainable use by the local population, of a large number of important wetlands under the recently approved AEWA-GEF programme which will run over the coming five or six years and includes a substantial multi-region training element.

AEWA has set a precedent on flyway conservation for a large part of the world. Ideally, four or five similar Agreements would cover the globe with a legal system for conservation and sustainable use of migratory waterbirds and their habitats. Though AEWA will serve as a precedent, each region and flyway will adapt its own design to policy and political priorities.

It is exciting to think about including more species other than waterbirds and an even larger area when discussing the development of structures for the Central Asian Flyway (CAF). From a biological point of view the CAF deserves its own flyway institutions but pragmatic considerations such as cost and bureaucratic burdens may make inclusion into AEWA more likely. That is for tomorrow: today's priority is to implement AEWA to the full. If that succeeds in winning over stakeholders across its range, extension should be a natural sequel.

Slender-billed curlew

The Slender-billed curlew is rated as Europe's most threatened bird species with an estimated population of fewer than 50 individuals. Its current breeding grounds are unknown but it was reported in the late 1990s to be wintering in small numbers around the Persian Gulf. A small, inconspicuous bird, it flies 4–5000 km each year from breeding grounds in western Siberia to wintering grounds in the Mediterranean and Near East, and the same distance back again. The bird's historic range spans 29 countries and an MoU specifying urgent measures to save this species from extinction has been sealed through CMS between all 18 of its Range States that are Parties to the Convention.



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White stork

The White stork is a widespread but declining species which breeds in Northern and Central Europe, wintering in tropical Africa. It breeds in open farmland areas with access to marshy wetlands. In parts of Europe, storks' nests can often be seen on churches and other buildings. Because of its close association with human settlements it is traditionally regarded as a bird of good fortune. In recent decades white stork populations have declined in most European countries where they were formerly abundant, and have disappeared entirely from some. The decline largely results from habitat loss through intensified agriculture, wetland drainage and other forms of land conversion. Another major threat is electrocution on electricity transmission lines and towers (see page 30).

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Agreements and milestones under CMS – the track record

This round-up of Agreements and Memoranda of Understanding concluded under CMS to date, together with highlights of recent and ongoing work and achievements, does not include new instruments currently in the making for the African elephant, the Saiga antelope and Sahelo-Saharan antelopes and the Houbara bustard, which are described in other sections of this report.

Agreement on the Conservation of Seals in the Wadden Sea (see page 11)
Trilateral environmental agreement concluded between Denmark, Germany and the Netherlands in October 1990, entering into force October 1991. Requires Parties to develop on the basis of scientific knowledge a conservation and management plan for the Common or Harbour seal. This plan, also known as Seal Management Plan, implements the provisions contained in the Agreement, as for example on research and monitoring, taking and protection of habitats. The Seal Management Plan is revised on a regular basis. The current Seal Management Plan for the period 2001-2006 was adopted in Esbjerg, Denmark, in 2001.

Agreement on the Conservation of Populations of European Bats (EUROBATS, see page 9)
Multilateral Agreement to which 29 European countries had become memebers in 2004. Adopted September 1991, entering into force January 1994. Covers European populations of Chiroptera (bats). Parties meet at three-year intervals and an Advisory Body appointed by Parties meets between sessions.

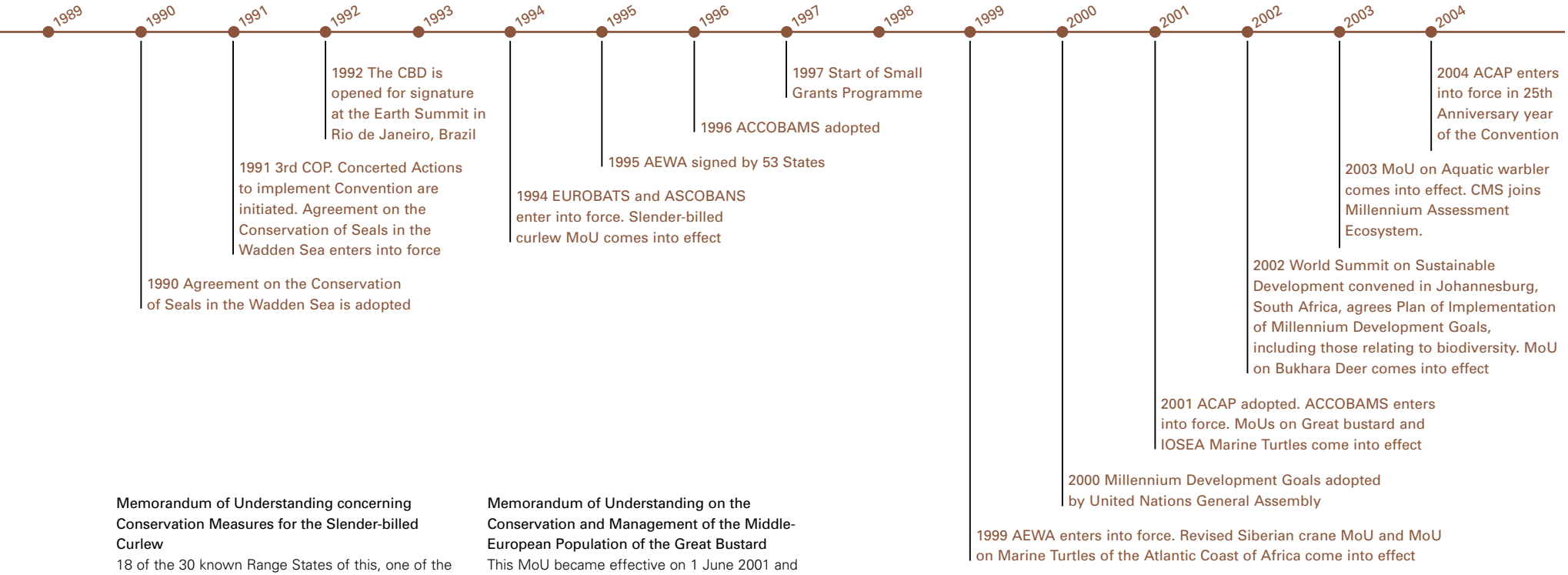
Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
(ASCOBANS). Eight countries now belong to the Agreement, which was adopted in September 1991 and entered into force in March 1994. The Fourth MOP agreed to extend the Agreement's geographic area west and southwards to incorporate waters adjacent to Ireland, Portugal and Spain. This means that once this amendment to the Agreement enters into force, the Agreement areas of ASCOBANS and its sister Agreement ACCOBAMS will be contiguous (see page 12).

Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)
Since its entry to force in November 1999, membership has increased steadily and by May 2004 numbered 46 countries. The Agreement covers over 235 species of waterbirds that depend on wetlands in Africa, Eurasia, Greenland and parts of Canada and the Middle East. The Global Environment Facility (GEF) has recently approved support for 22 developing countries and countries in economic transition to participate in AEWA (see feature on page 15).

Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS)
Of 18 Mediterranean coastal countries, 13 have joined since this multilateral agreement was adopted in 1996, entering into force in June 2001. In conjunction with the Barcelona Convention's Mediterranean Action Plan, ACCOBAMS has recently published guidelines for whale watching and is building networks to monitor cetacean strandings. A Conservation Plan for cetaceans is being implemented by way of National Action Plans in Bulgaria, Tunisia and Romania (see page 13).

Agreement on the Conservation of Albatrosses and Petrels (ACAP, see page 14)
This newly fledged Agreement, adopted 2001, entered into force in February 2004. It has been signed by nine countries and ratification by several others is in the pipeline. The Interim Secretariat established by the Government of Australia is planning the First Meeting of Parties, scheduled to take place during 2004.

Memorandum of Understanding concerning Conservation Measures for the Siberian Crane
Effective since 1998, the original MoU was concluded in July 1993, the revised version in January 1999 and involves 10 Range States as well as co-operating organizations the International Crane Foundation and the Wild Bird Society of Japan. An associated Siberian Crane/Wetlands GEF project within the framework of the Siberian Crane MOU, is being implemented in the Russian Federation, Iran, China and Kazakhstan including preparatory work for a full-size five-year GEF project (see page 13).



Memorandum of Understanding concerning Conservation Measures for the Slender-billed Curlew
18 of the 30 known Range States of this, one of the rarest endangered species listed under CMS, have signed this multilateral MoU, which entered into effect in September 1994. Two co-operating organisations in addition to the CMS Secretariat have signed this instrument and are aiding its implementation, BirdLife International and the International Council for Game and Wildlife Conservation.

Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa
Now with 19 signatories representing the majority of relevant Range States, this MoU took effect in July 1999 and a comprehensive Conservation Management Plan was agreed in May 2002. Parties report annually on steps towards implementing this Plan, which incorporates many measures directed towards sustainable use.

Memorandum of Understanding on the Conservation and Management of the Middle-European Population of the Great Bustard
This MoU became effective on 1 June 2001 and had 12 signatory states by 2004. It includes an Action Plan specifying national action and transboundary co-operation required for improving the conservation status of this widely over-hunted species. A meeting of the Signatory States will take place in 2004.

Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Indian Ocean and South-East Asia (IOSEA)
This MoU was concluded under CMS auspices and became effective on 1 September 2001. Its 16 Signatory States held their first meeting in Bangkok in January 2003 and a regional Secretariat was established in April 2003, housed with the UNEP Regional Office for Asia and the Pacific (UNEP/ROAP) in Bangkok, Thailand. The MoU applies to waters and coastal States of the Indian Ocean and South-East Asia and adjacent seas, eastwards to the Torres Strait.

Memorandum of Understanding concerning Conservation and Restoration of the Bukhara Deer
Developed by the CMS Secretariat in collaboration with the Central Asia Programme of WWF and the International Council for Game and Wildlife Conservation, this MoU became effective in May 2002. Four Range States in Central Asia (Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan) have signed the Agreement. Deer populations in Uzbekistan have stabilized, and are now growing both there and in Turkmenistan. The global population of this species is now estimated at about 550 animals, versus an estimated 350-450 a few years ago.

Memorandum of Understanding concerning Conservation Measures for the Aquatic Warbler
In co-operation with the Government of Belarus and BirdLife International, CMS recently finalised work and negotiations on this new agreement and 10 out of 15 identified Range States had signed it by the end of April 2003, ensuring its entry into effect. It will promote more targeted and better coordinated multi-country work to identify the warbler's migration routes and wintering sites and to conserve and partly restore the ecosystems on which this scarce and elusive bird depends.

THE NEGOTIATING JOURNEY

CMS takes off

Judging by the turbulent previous history of multilateral agreements applied to wildlife protection, such as the Convention on Endangered Species of Wild Fauna and Flora (CITES), a bumpy take-off might have been predicted for CMS as it entered the adoption stage of negotiations in June 1979.

Sure enough, at the two-week Diplomatic Conference mounted in Bonn, Germany to approve the Convention's final draft, it became evident that differences over the most basic definitions of its scope would need to be thrashed out before it could be adopted.

The draft Convention text defined migratory species as 'the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross national jurisdictional boundaries'. Some delegations took exception to so broad a definition and lobbied to exclude marine animals. As environmental lawyer Françoise Burhenne-Guilmin – a distinguished contributor to the drafting process – recalls (opposite), this deadlock was eventually broken, though not without some political drawbacks.

Biodiversity in motion

A year after the required number of countries had ratified it, CMS entered into force on 1 November 1983, becoming one of the first multilateral environment framework agreements to focus on conservation and sustainable use of biodiversity. Since then its membership has grown steadily. By 2004, the Convention's 25th anniversary year, it included over 85 Parties from Africa, Central and South America, Asia, Europe and Oceania. Thus far, Europe and Africa are the most comprehensively represented regions.

Agreements concluded under the umbrella of the Convention often involve, in addition to regular Parties, any number of Range States that have not yet acceded to CMS but recognise its Agreements. Including these States, the number of countries involved in implementing CMS is more than 110. CMS also works in co-operation with like-minded inter-governmental organisations and treaty bodies working in adjacent areas of concern, such as the Convention on Biological Diversity (CBD, see page 28) and the Ramsar Convention on Wetlands of International Importance (page 21).

Over the past few years CMS has developed more explicit institutional and collaborative linkages with several intergovernmental treaties and international organizations. These linkages have in some cases been formalized with the conclusion of Memoranda of Co-operation and joint work programmes, the most recent of which have been concluded with UNCCD (see page 5) and IUCN (see page 20).

In the past 15 years, six legally binding regional and global Agreements have been concluded under the CMS umbrella for bats, birds, cetaceans and seal species. Another is under development, for the Houbara bustard. CMS has enabled seven MoUs for birds, marine turtles and large herbivores and another five are in the making. Since its Fifth Meeting in 1997, the COP has regularly provided a governance structure and financing that enable CMS actively to support research and conservation projects.

These projects help to catalyse conservation actions, fill gaps in knowledge and provide a better scientific foundation for conservation action. The spectrum ranges from developing status reports and evaluating habitat quality, to assessing migratory behaviour and elaborating guidelines for nature conservation and sustainable use (see pages 4 and 22 for more on the operational dimension of CMS).

Many of these activities are conducted in close collaboration with leading non-governmental and campaigning organisations, research centres and policy development institutes active in sustainable development, conservation of wildlife, game and ecosystems, climate studies, land use, protected areas, animal welfare, environmental law-making and many other relevant fields (see next section).

CMS has won global recognition for its efforts to reduce the rate of biodiversity loss by conserving an integral portion of the genes, species and ecosystems that make up the world's natural heritage. In 2002, CMS was acknowledged by the Conference of the Parties of the CBD in The Hague as the lead partner for conservation of migratory species as a key component of the world's biological diversity. Areas of common concern, practical complementarities and future prospects for interaction between the two are discussed later in this report.

Battling poverty

CMS has long been committed and dedicated to poverty eradication and sustainable development. It has supported economic activities involving the sustainable use of migratory species, such as ecotourism or managed food production. Today, it promotes sustainable development by striving to implement time-limited goals set at the World Summit on Sustainable Development in Johannesburg in 2002.

Over the past 25 years, numbers of endangered marine, avian and terrestrial species listed on the Convention's Appendices have grown substantially at each COP. Starting out from 51 species listed on Appendix I and 44 on Appendix II, Appendix I now lists well over a hundred species and Appendix II over a thousand.

Landmark resolutions and recommendations have been adopted by the COP of CMS on environmental impact assessment and migratory species, electrocution risks, oil pollution and wind power. Once implemented by Range States they will significantly minimise threats to migratory species. Much remains to be done to counteract these new obstacles to migration (see final section).

HOW CMS WAS BORN

FRANCOISE BURHENNE-GUILMIN of IUCN's Environmental Law Centre recalls the Bonn Convention's difficult birth, and how Africa rose to the challenge of becoming its midwife.

Representatives from 77 States met in Bonn from 11 to 22 June 1979 at the invitation of the Federal Republic of Germany (FRG) to negotiate and adopt the Convention on Migratory Species of Wild Animals. This event was the culmination of several years of efforts and international consultations steered by the FRG and supported by the Environmental Law Programme of IUCN, in particular by its Law Centre (ELC). It all started with the adoption by the Stockholm 1972 Conference on the Human Environment of Recommendation 32, calling for international conventions and treaties, *inter alia* for the conservation of species which migrate from one country to another, an idea keenly pursued at Stockholm by IUCN and its members.

The Government of the FRG decided in 1974 to assume responsibility for following up on this recommendation, and informed the Second session of the UNEP Governing Council (Nairobi, 1974) that it would assist in preparing a convention on migratory species and would be happy to act as host to an international meeting to conclude such a convention. From the beginning, the Government requested the collaboration of IUCN in this endeavour. As a result, for the next four years the IUCN ELC worked continuously with the officials of the FRG Ministry of Food, Agriculture and Forestry who took the lead in the process.

As a first step, IUCN was asked to prepare an initial draft. This unofficial IUCN draft was circulated to the governments of all States with which the FRG maintained diplomatic relations, with a request for comments. A meeting of experts was then held in Bonn from 6 to 9 July 1976 to discuss the draft. The comments of the experts provided the FRG government with the basis for the preparation of a revised – and this time official – draft to be submitted to a plenipotentiary conference. Several of the questions which became hot issues during the final negotiations had already come to the fore in 1976, but it was clear that there was general support for what was referred to as an 'umbrella' convention, or a 'framework', which would coordinate action on the conservation and management of migratory species, and within which international agreements covering one or more species would be negotiated.

This was a novel idea, and the flexibility it provided was appealing. Opinions diverged on a number of important features, in particular scope: some were in favour of a broad approach and others wished to restrict the convention to endangered species, or at least exclude marine species, most notably commercially exploited fish species.

These and related problems were not overcome in the next phase of drafting and consultations, and so they came to a head during the 1979 plenipotentiary conference. The so-called 'minority' States (US, USSR, Japan, Australia and New Zealand) took the position that the Convention should indeed not cover marine species, invoking possible conflicts with the ongoing UNCLOS negotiations (which were, and also later proved, unfounded). Another 'limiting' proposition was to exclude the Antarctic region, given the desire not to disturb conservation regimes underway for that part of the world.

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The Godesburg, one of the oldest castles in Germany's Rheinland and birthplace of the Bonn Convention.

These discussions, as well as a number of others related (for instance) to the recognition of migratory species as 'shared resources', a legal concept then being explored and controversial) resulted in an increasingly tense and dense climate. And the Migratory Species Convention would probably not be a reality today had the African delegations not countered these moves by presenting a remarkable united front on the need to keep a holistic approach. They proclaimed, in a joint declaration, their belief that 'wildlife as a whole, and migratory species in particular, are a common heritage of mankind to be conserved and managed in the common interest and by the common consent of all peoples'. No exclusion of groups of species or geographical areas could be consistent with these views.

Support for this declaration was subsequently forthcoming from European, Asian and Latin American delegations, but a consensus could not be reached, and a vote took place, rejecting any limitation. Ultimately, the Convention as a whole was adopted with only two dissenting votes: from the US and Argentina. Feeling isolated, the US took the unprecedented step of changing its vote the next day to an abstention. Argentina followed suit. Commentators at the time considered that the most distressing aspect of the negotiations was the impression that, for whatever political reasons, the US was abdicating its traditional role as leader and innovator in international conservation initiatives. Who remembers this interesting history today? Not many, but it should not be forgotten: it is part and parcel of the development of treaty law in the field of species conservation and management – now recognised as part and parcel of sustainable development.

A difficult birth, but well worth it. And one of the first in which farsighted developing nations, especially the countries of Africa, played a very significant role.

GERMANY AND THE GENESIS OF CMS

The genesis of CMS is intimately connected – as its Bonn Convention nickname implies – with Bonn, the former capital of the Federal Republic of Germany. KARL-GÜNTHER KOLODZIEJCOK, a former head of department in the FRG Ministry for the Environment, describes how this historic link grew from roots in German political debate during the 1960s and 1970s.

At the end of the 1960s and the beginning of the 1970s, environmental protection and nature conservation became big public issues in Germany. The United Nations Conference on the Human Environment in Stockholm revealed in 1972 that environmental protection and nature conservation had also become important international concerns.

Although nature conservation had a long tradition in Germany, its implementation was not part of federal politics. Until this time the economic and social reconstruction of Germany and its reintegration into the Atlantic community had dominated the nation's political agenda. This policy vacuum gave rise to increasing public criticism of the Federal Government and of ministers responsible for natural resources.

The Government made moves to replace the *Reichsnaturgesetz* (the legal code for nature conservation) of the German Reich, which was still in use in the federal states, with a new federal nature conservation act, and to ratify CITES. But these steps did not go far enough to calm the critics. The Federal Government, anxious not to be forced onto the defensive on such issues by the emerging Green Party and others, came up with the idea that it should take the lead in international relations and law-making for nature conservation.

The Environmental Law Centre (ELC) of IUCN, located in Bonn, directed the Ministry of Agriculture´s attention to one of the many Stockholm recommendations, on establishing a framework for a multilateral Convention on Migratory Species. The then Minister of Agriculture, Joseph Ertl, accepted the suggestion. He announced to UNEP's second Governing Council in 1974, that the Federal Government of Germany would develop a draft convention and organize an international conference to debate and adopt it. Beyond political considerations, all were agreed that it made obvious technical and biological sense to deal with migratory species on a multilateral basis.

An official international summit was duly organized for in June 1979 in Bonn-Bad Godesberg. With the support of the ELC (on a contract basis) and by means of bilateral and multilateral contacts and consultations, the Federal Government of Germany had prepared a draft Convention text for this event. The conference concluded successfully with the signing of the Convention on 23 June. After hard negotiations, many changes, new formulations and majority decisions forced by differences of opinion on its eventual scope, a Convention was born.

IUCN AND CMS – A QUARTER OF A CENTURY OF SOLIDARITY

IUCN (The World Conservation Union) has been connected to CMS throughout its existence, not just by a shared history but also by a like-minded philosophy and approach to global environmental governance. ACHIM STEINER, Director General of IUCN, salutes a long and cordial partnership.

As far back as the 1960s, IUCN and others issued alarm calls on behalf of threatened migratory animals. One result was that in 1972 the United Nations Conference on the Human Environment in Stockholm called for a global treaty to protect endangered migratory species.

Three months later, the idea was endorsed as a priority by IUCN's eleventh General Assembly. None of this happened by accident. And what took place afterwards depended, as always, on the dedication of a small number of individuals, including Françoise Burhenne-Guilmin, later to be ELC's Director, and the late and greatly respected Cyrille de Klemm.

The draft text they developed was visionary, reflecting the latest concepts of conservation and environmental management and anticipating further expansion and revision of basic commitments. Thus CMS turned out to be both flexible and adaptable. The German Government steered the text through new drafts and a Diplomatic Conference in Bonn adopted the final version in 1979. This was just the beginning of IUCN's partnership with CMS. The Union, through ELC, has continued to develop joint projects for implementing the Convention, and has helped to develop several subsequent agreements under its auspices. These have benefited from the participation of IUCN programmes, regional offices and the Specialist Groups of the Union's Species Survival Commission as and when required.

The IUCN Marine Programme is a flagship example of our overlapping concerns. Many of the CMS Agreements deal with aquatic species among them marine species. For example, ELC helped negotiate the African-Eurasian Waterbird Agreement (AEWA) and prepared the AEWA Conservation Guideline on Legislation. IUCN sits on AEWA's Technical Committee, and participates in a project on Traditional Knowledge of Waterbird Management and Rehabilitation of Habitats Damaged by Alien Invasive Weeds. The Law Centre also helped negotiate the Wadden Sea Seals Agreement, provided technical advice to the two cetacean agreements (ASCOBANS and ACCOBAMS) and participated in negotiations on the latter. Later it helped develop agreements on Albatrosses and Petrels, Marine Turtles on the Atlantic Coast of Africa and Marine Turtles of the Indian Ocean and Southeast Asia. The Union has also participated with CMS and others in work on a strategy for Caspian Sea sturgeon.

For 25 years, endangered migratory species have found an inter-governmental champion in CMS. Their plight has come to be recognised as a cross-cutting issue closely related to the concerns of CBD and other biodiversity-related Conventions not least Ramsar, World Heritage and CITES. This is a record in which CMS can justly take pride and one worthy of celebration on this important anniversary. Our partnership with CMS shows how conservation organizations such as ours can help muster the political momentum for environmental conventions. At the same time, CMS has shown how synergistic relations with more general biodiversity conventions and IUCN's network can enabled it to record some major achievements, regardless of its (by traditional standards) compact administrative structure and donor support base.

AFRICA – A LEADER IN REGIONAL INITIATIVES FOR CONSERVATION

ANDERSON KOYO of Kenya Wildlife Service looks into some of the factors that cast Africa in the role of a world leader in regional co-operation for conserving migratory species under the provisions of CMS – and as a testbed for such co-operation elsewhere.

Every country in the world shares some of its major ecosystems, habitats or biomes and their biological diversity with other countries. By providing a framework for international co-operation on conservation and sustainable use of migratory species of wild animals, CMS is designed to create synergy and solidarity among Parties and national institutions so as to reinforce one another's efforts and optimize the benefits of conserving migratory species as a pathway to sustainable development. A majority of the world's major regional political and economic blocs nowadays attach priority to environmental conservation in their programmes as a matter of course, recognizing the relevance and importance of environmental security and biodiversity to sustainable development.

Outside Africa, this imperative was not always so universal. In the Convention's early years, Africa's regional institutions and national delegations to CMS provided much of the impetus behind agreements like AEWA and they continue to take a lead today in innovative regional initiatives on migratory wildlife.

The continent's biological circumstances form part of the reason why this should be so. Hundreds of bird species ply the African-Eurasian flyway routes. Moreover, many mammal, fish and insect species are migratory within the region and its sub-regions. Economic factors such as the importance of nature tourism to many African nations have also played a part. So, too, have institutional advantages. For Africa is rich not only in wild fauna but also in regional co-operation instruments with a sustainable development mandate. For instance, several multi-country mechanisms operate within shared hydrological basins. These include lake and river basin authorities, commissions and management programmes for Lake Victoria, Lake Chad, the Okavango Basin, the Nile River, Lake Tanganyika and Lake Malawi-Nyasa-Niasa. Within coastal areas there is the Western Indian Ocean Marine Scientific Association (WIOMSA) and UNEP-sponsored Regional Seas programmes. These mechanisms promote management of natural resources integrated across all riparian states.

At country level, many of Africa's developing countries have National Environmental Action Plans (NEAP) and National Biodiversity Conservation Strategies and Action Plans. Institutional arrangements support co-operation at national and local levels. They include Village, District and Provincial Environment Committees, National Environment Councils, Inter-ministerial Committees on Environment, National Wetlands Committees, National Marine Forums and site-specific management committees. These multi-layered arrangements can be effective agents of change but over the coming years they will need to be strengthened, integrated and made more inclusive in their approach to conserving migratory species and their habitats.

Information on Africa's successful achievements under the Convention in the past 25 years deserve be highlighted as an example to all Parties. But there are still missing links. CMS needs to establish positions of regional technical officers to help regional representatives build capacity and co-operation. There is also a need for training workshops and seminars as well as public education and awareness programmes to popularise CMS at regional and local levels. Special information packages targeting different stakeholder groups should also be provided. More effort should be put into developing regional collaborative frameworks that encourage stakeholders to work together, especially in least developed countries. Mobilising resources for implementing the Convention is another important link. On the knowledge front, more needs to be known about movements within Africa of species dealt with under CMS, an area of knowledge that has so far played second fiddle to research on intercontinental movements. As such knowledge grows, so will Africa's already widely acknowledged potential to advance the aims of CMS.

Africa is justly famed for its safari ecotourism.

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THE RAMSAR CONNECTION

The Ramsar Convention on Wetlands of International Importance was originally negotiated with conserving wetlands as habitat for – predominantly migratory – waterfowl as its goal. NICK DAVIDSON and DWIGHT PECK trace Ramsar's further evolution and its practical interaction with CMS over three decades.

The Ramsar Convention on Wetlands, adopted in 1971, came into force in 1975. It was initially focused on the importance of wetlands as habitat for waterbirds and on the need to establish networks of key protected sites along their migratory routes. Yet it has always also paid attention to the full range of wetland-dependent life forms, increasingly so over the years, including globally threatened species and migratory fish, as well as biogeographic population- and habitat/ecosystem-level conservation and wise use, with an emphasis on international co-operation on migratory species.

The approach adopted by CMS from 1977 onwards is both congruent with, and supportive of, Ramsar's attention to migratory wetland-dependent species. Of special interest to Ramsar is the scope CMS offers to develop practical actions at national and international levels for migratory species conservation, such as its Concerted Actions and Co-operative Actions for listed species or groups of species, including species Action Plans. Much valued, too, are the mechanisms for establishing Range State Agreements and the provision of information on migratory species compiled under CMS and its Agreements, which can greatly assist Ramsar Parties seeking to deliver commitments under the Convention on Wetlands. Certain Agreements are of prime significance and relevance to Ramsar, notably the African-Eurasian Migratory Waterbird Agreement (AEWA) and the various regional marine turtle Agreements.

Message from the Secretary General of the Ramsar Convention

PETER BRIDGEWATER sums up relations between CMS and the Convention on Wetlands.

As I have followed the evolution of CMS from the early 1990s it is clear that the Convention, through its regional Agreements, has greatly matured. The Agreements are indeed are the strength of the Convention, allowing full expression to the needs of all the species covered by the Convention. The Ramsar Convention looks forward to many more years of fruitful co-operation with the CMS family for migratory species that fly, swim or walk in our wetlands!

The Ramsar and CMS Secretariats first cemented relations with an MoU signed in February 1997. This partnership promises to become still more fruitful as the recently developed Ramsar-CMS-AEWA Joint Work Plan, formally signed at the Edinburgh Global Flyways Conference in April 2004, takes effect. It explicitly recognizes the importance of these common issues and synergies that link Ramsar to CMS and its Agreements. Implementation of the Plan will provide redoubled support to countries seeking to improve the future prospects of migratory species and the wetland ecosystems on which so many of them depend.

Further action to maintain the ecological character of wetlands and the migratory species which depend upon them is urgently needed, since many migratory species have a deteriorating status – for example, over twice as many waterbird populations are decreasing as are increasing – and the strengthened collaboration between our Conventions embodied in this Joint Work Plan is both timely and encouraging.

CMS AND AUSTRALIA

One of the nations that held back from signing CMS at its adoption stage in 1979, Australia has emerged since 1991 as one of its most active and determined Parties. ROBYN BROMLEY flags the country's pride in its migratory wildlife riches and its growing influence as a regional sponsor for conservation accords.

Australia – the world's smallest continent, yet its largest island – is one of the most biologically diverse countries in the world. Species that migrate to and from Australia range from the largest animal on earth, the Blue whale, through to the small Arctic tern that travels the longest distance of any migratory species. It was in recognition of the special place our migratory species occupy in our ecosystems and the special co-operative protection mechanisms that migratory species require, that Australia joined the CMS family in 1991.

Being a Party to CMS creates an important opportunity to integrate the protection of Australia's biodiversity with work done under other multilateral environment agreements. Since becoming a Party, Australia has had an active engagement not just in the Convention itself, but also in developing and implementing arrangements which allow Parties to conclude regional agreements for the benefit of species listed on Appendix II. One of the great strengths of CMS for Australia and its neighbouring Pacific countries lies in the fact that each arrangement developed under it is a targeted, regional agreement, and is open to all Range States for the species it covers, regardless of whether those countries are Parties or not.

Such flexibility allows more targeted action at ground level than other international agreements, resulting in solutions tailored to the needs of the region and sensitive to both environmental and socio-economic objectives. Many Pacific countries that are small islands and may lack the capacity to join large multilateral conventions, find such arrangements more practical and apt to their requirements. Australia has been proactively involved in several such arrangements. For instance, Australia took a leading role in the development of the Indian Ocean and South East Asian Marine Turtle Memorandum of Understanding, which was adopted on 14 July 2000 and came into effect on 1 September 2001.

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Wandering albatross, the world's largest flying bird.

Australia has also been central in the development of the Agreement on Conservation of Albatross and Petrels, better known as ACAP (see page 14). Australia had long sought to encourage other countries to act on an international level in respect of these migratory seabirds, complementing policies and measures adopted at national level. While this approach involved a number of fishing trade bodies and forums, interactions with fisheries was clearly not the only problem. For Australia and other sponsors, CMS provided a welcome framework for enhancing the conservation status of migratory seabird species like albatrosses and petrels through co-operative efforts applied by countries and jurisdictions along their migratory paths.

As well as ACAP and the Turtle MoU, Australia, along with New Zealand, has recently initiated the development of an arrangement in the South Pacific for the protection and conservation of marine mammals, also under CMS auspices. In March 2004, representatives of 13 Pacific states and several national NGOs met and agreed on a vision that such an arrangement should work towards – a state of affairs where populations of marine mammals have recovered to sufficiently healthy levels of abundance around their former range of distribution to meet and sustain the cultural aspirations of Pacific peoples. This awareness-building exercise seems certain to increase Convention membership in Oceania. Samoa has already announced (in March 2004) that it will become the first developing island state in the region to join the Convention.

Australia looks forward to continuing its engagement in the Convention on Migratory Species, as well actively taking part in those regional arrangements it facilitates for protecting and conserving vital migratory elements of Australia's mega-diversity.

Framework into action

The inter-governmental and law-making dimension of CMS, highlighted in the preceding section, forms an essential framework and mandate for new work to extend scientific knowledge about the phenomenon of migration and the physical factors that affect particular migratory species, or groups of species, their movements and the habitats they interact with along the way. This section looks into these knowledge activities more thoroughly, and at the operational dimension of CMS that enables Parties and partners to fund and deliver projects and programmes that can serve as a baseline for concerted conservation action. It also highlights interactions with other institutions, including leading NGOs and research institutes, that help make such investigations and actions feasible and cost-effective.

The NGO connection offers additional advantages in terms of raising the profile of CMS in public awareness and esteem, thanks to the access NGOs enjoy to the media and to their experience of building popular support bases in civil society worldwide and among special interest constituencies such as bird-watching and sport hunting associations. Campaigning wildlife and pro-nature groups have much to share in this respect, in those areas where their agenda overlaps with programmes of work sanctioned by the official and governmental bodies that oversee the Convention.

Another consideration touched on in this section is the interplay between CMS and other multilateral environmental agreements (MEAs) that operate in allied or adjacent areas of global concern, such as CBD and the Ramsar Convention. Avoiding duplication of effort and the risk of working at cross purposes is but one side of this interplay. There are clear signs that the more positive need to make the most of potential synergies and opportunities for cross-fertilisation of ideas and cost-sharing between the professional establishments that service these instruments is now coming increasingly to the fore and progressing beyond rhetoric or wishful thinking, with the emphatic approval of the intergovernmental community.

The project side of CMS

Parties to the Convention accept a number of basic rights and obligations. But they also benefit from opportunities to access grant support for research, conservation and capacity or awareness building projects from the CMS Small Grants Fund. The average size of grants is around US$20–40,000 and some 15 projects are currently receiving support from this source in 25 countries. Since 1997 about US$1.4m have been disbursed from the fund to some 45 projects. Parties that fall within the accepted definition of developing countries can also gain access to GEF, which provides assistance for projects that benefit the global environment and promote sustainable livelihoods in local communities. Conserving biodiversity is one of six specific concerns that define the GEF portfolio.

Developing countries and countries with economies in transition (CETs) that are CMS Parties also take precedence for Small Grants Fund support but non-Parties, NGOs, research institutes and individuals are also eligible to apply, either separately or jointly, for such support. Priority is also accorded to projects affecting Appendix I species or groups of species warranting Concerted Action. Detailed guidelines are available on the CMS website.

Information Management

Effective conservation action requires information on which planning and decision-making can confidently be based. The CMS Information Management System (CMS-IMS), accessible through the CMS Secretariat website, offers open access to various components and services required for implementing the CMS Information Management Plan. It brings together data from a wealth of expert organisations and project teams, including GROMS (see opposite), Fishbase, the IUCN Red List, BirdLife and the UNEP World Conservation Monitoring Centre (UNEP-WCMC). It also incorporates knowledge generated within CMS and other biodiversity-related agreements such as CITES or CBD, as well as information provided by the Parties to CMS through the National Reports they are required to submit as a routine obligation under the Convention. The four main categories of information obtainable through CMS-IMS are:

- Information about animals listed in CMS Appendix I and II, such as population sizes and trends, or details of ongoing research and monitoring activities that relate to listed species
- Information about animal groups of special interest to CMS, such as bats, birds, marine mammals and others, in relation to such issues as their current status in legislation, obstacles to their migration, factors liable to endanger them and curbs on conservation action
- Information about Parties to CMS, including a country profile for each Party, information on official and non-governmental institutions involved in implementing CMS at national level and what each is doing, technical and financial resources, and listed species sorted by country
- Information provided to CMS by Parties on specific themes such as progress towards implementing particular Resolutions or Recommendations, or use of advanced technology such as satellite telemetry. Users can obtain an overview on regional or worldwide scale.

Launched in 2003 in collaboration with UNEP-WCMC, the IMS is already the repository for National Reports to the CMS Conference of Parties. A new national reporting format has been devised with IMS in mind making it simpler for country focal points and others to input or retrieve such information electronically. IMS will also be the principal tool for providing the Scientific Council of CMS with the

information it needs to track the progress of Concerted Actions on priority species listed in the Convention's Appendix I. An electronic 'Rolling Paper' will be instituted as a way continually to update and confer on progress towards this end, species by species. It will combine text, spreadsheet, data form and database features with annotated maps that draw on resources already established as part of the UNEP-WCMC interactive mapping service, such as the Global Database on Protected Areas.

The Strategic Plan of CMS outlines objectives that can only be fully achieved if dependable scientific information is systematically managed and applied to back up conservation action. The Rolling Paper will cater to a broad spectrum of information needs identified in the CMS Information Management Plan that was devised in response to this aspect of the Strategic Plan. These documents are available on the Secretariat website.

In the future the IMS will also play a prominent part in backstopping efforts by CMS to achieve targets set for 2010 as part of a process of tracking progress towards conserving biodiversity set in motion at the WSSD in Johannesburg. These targets were established mainly with implementation of the Convention on Biodiversity in mind, but it is recognised that CMS is in a favoured position to deliver action on several of them, if it can validate its inputs with credible indicators for assessing such factors as the degree of threat faced by species or ecosystems.

GROMS – SUMMARISING KNOWLEDGE FOR CONSERVATION

KLAUS RIEDE of the Alexander Koenig Research Institute and Museum of Zoology in Bonn describes the evolution of the online Global Register of Migratory Species, one of the keystone information resources of CMS, and assesses its continuing development.

In 1996, the late Professor Clas Naumann zu Koenigsbrueck, Director of the Museum Koenig in Bonn, told me about plans to design a database on migratory species, in co-operation with the CMS Secretariat. This project was seen as a contribution to Bonn's new function as a capital for science, with a strong focus on North-South dialogue. The new branch of biodiversity informatics was promising, and everybody was convinced that publishing species information on the World Wide Web would help conservationists.

We started in 1997 with a small team, building the database from scratch. Soon we realised that we had taken on some of the most complicated questions in biodiversity informatics. Take distribution maps, for example. It might well seem easier to map a species' genome than to plot its real distribution, especially if it is constantly on the move. Once a desktop Geographic Information System (GIS) became available, and after having solved some of the software glitches, we easily transferred printed maps into digital format. Problems remained, such as accounting for uncertainty and geographic inaccuracy, scale and (in particular) the time domain: integrating the latter into GIS systems is among the biggest unsolved problems in geo-informatics.

Inputs from Bonn University's geo-informatics department and a number of small computer design ventures helped us to figure out how to publish maps on the web, including flyway animation tools. Today, the GROMS website offers an interactive map server based on Open-GIS technology, animated display of migration routes, and dynamic open database access to the entire GROMS dataset on the www.groms.de website. Some 4335 migratory species have been identified, that pursue predictable and cyclical migrations of more than 100 km. Most cross international boundaries and over 800 are already CMS-listed.

By way of the Expert Search Function, users can now ask their own questions, such as: How many migrants are also protected under CITES, or how many have been classified as Threatened using Red List criteria? It is now also possible to find migratory species listed by family on CMS Appendix II. All results have been published in book format with CD-ROMs enclosed, so information can also be made available off-line in countries or institutions with limited Internet access. From the CD, users can now customise maps, combining geographic with, for example, political data such as the list of Members of particular CMS agreements.

The GROMS project has been funded by the German Government through the Federal Ministry for the Environment, and implemented by the Federal Agency for Nature Conservation for the period 1997 to 2002. A five-year period is short in proportion to the task in hand but a long time in the Information Society. Since 1997 a number of complementary bio-informatics initiatives have grown and thrived. Users might well ask, why so many initiatives? But as this project has shown, different databases fulfill different needs. Migratory species in particular are not adequately covered, and need a dedicated information system, reflecting individual movements of subspecies or populations along different routes.

As envisaged, the database was handed over to CMS at the Conference of Parties in Bonn in 2002, and now continues as a co-operative venture between the Secretariat and its host institution, the Zoological Research Institute and Museum Alexander Koenig. A concept will be developed on how to maintain and update GROMS under the aegis of CMS, but in partnership with other national and international organizations. It now depends on the scientific community to pool their data and expertise to complement the basic and global information provided up to now with more data on a finer scale. Hopefully, these data will help conservationists in their difficult task of defending migratory species in a world strewn with barriers – and subject to unpredictable climatic changes – arising from human activities. Visit the GROMS website, www.groms.de, for details of the tools it makes available.

A GROMS visualisation of 5000 data points obtained using satellite telemetry gives an exact picture of the Eastern White stork population´s flyway.

CMS AND THE UNITED KINGDOM – PLAYING TO STRENGTHS

HILARY NEAL, UK Focal Point and Chair of the CMS Standing Committee, looks at the challenges and opportunities involved in positioning CMS to tackle the key WSSD pledge to significantly reduce the rate of biodiversity loss by 2010.

CMS has always been important to the UK and we feel we have helped its successful development, today by chairing the Standing Committee and the Scientific Council. We are the depositary to the EUROBATS Agreement and for a time provided its interim Secretariat. And because many of the UK's Overseas Territories are in the range of initiatives beyond Europe, we have been able to play an active part in recent negotiations leading to the MoU on Marine Turtles in the Indian Ocean and South-East Asia and the Agreement on the Conservation of Albatrosses and Petrels.

It strikes me that one of the CMS's strengths is its very clear role and purpose. Its core objective, to ensure that action to safeguard species that migrate across national boundaries is coordinated internationally, is so simple yet so self-evidently important and it remains as relevant today as it was in 1979. Communicating that purpose in tangible ways to a wider global community is one of many opportunities that this Silver Anniversary presents. A further strength is the Convention's framework, which allows for the establishment of specific agreements tailored to regions and groups of species. This flexibility enables the special circumstances affecting different species to be taken into account and allows new priorities to be addressed as time goes by. This means CMS agreements can stay relevant, lively and responsive.

As to challenges, clearly the Convention needs to secure greater global coverage to be truly effective. Species are unlikely to redirect their migration routes to pick out CMS Parties! How can we optimise the Convention's contribution without placing unmanageable burdens on Parties and the Secretariat? We could think creatively about using the Convention's mechanisms to extend its reach, whilst sharing the load with other treaties and partners. We need to ensure that our work expands and grows more effective but avoids the 'agreement fatigue' some have warned of.

A more immediate challenge is the new CMS Strategic Plan for 2006-2011. We must make sure it is clear and relevant and provides a vision and objectives to steer priorities and budgets in subsequent work programmes. If we get it right, it will be the driving force as the Convention heads towards 2010 and beyond. It is increasingly clear that migratory species have special significance as barometers of the state of the world's biodiversity. More than many other species, they are likely to be sensitive to changes in ecosystem quality. Exact knowledge of their status should provide a key indicator of progress towards reaching WSSD's 2010 biodiversity goals.

HRH Prince Charles speaking at a BirdLife campaign launch.

'CMS deserves the full support of us all, and... I have taken particular note of the recent development, under the leadership of the governments of Australia and South Africa, of an Agreement on the Conservation of Albatrosses and Petrels. I am pleased to sustain that support by calling upon the world community, and especially the governments of the Range States and those with relevant fishing fleets, with the help of international organisations, to ratify the Agreement and to get it working so as to reduce as soon as possible the factors which have brought these splendid birds to the brink of extinction.'

Extract from a message addressed to the Seventh COP of CMS by HRH the Prince of Wales endorsing BirdLife International's campaign on behalf of threatened albatrosses and petrels and the subsequent adoption of the ACAP Agreement (see page 14) in 2004.

This anniversary provides an important opportunity to take stock. Progress has been made, more people and governments and organizations are engaged, but serious loss of biodiversity continues. The philosophy of nature conservation has changed in the past quarter of a century. We have been reminded of the relevance of ecosystems to the health and well-being of societies and that human needs must be an integral part of our biodiversity conservation efforts. This makes the task more complex, but potentially more effective in the long term. CMS and its family – in partnership with other international biodiversity agreements – must prove itself equal to the task.

BIRDLIFE INTERNATIONAL AND CMS – A COMMON VISION

When two rather different organisations have similar objectives, they can often achieve a lot by working together. So it is between CMS and BirdLife International, an NGO operating in over 100 countries and territories, reflects BirdLife's JOHN O'SULLIVAN.

Our relationship with CMS goes right back to the beginnings of the Convention in the late 1970s. In the quarter-century since then, the two organizations have co-operated on activities ranging from the negotiation of CMS Agreements – among them AEWA and ACAP – to the promotion of the Convention via the World Wide Web. BirdLife provides the Secretariat to the working group on the Memorandum of Understanding on the Slender-billed curlew, one of the world's most endangered birds.

BirdLife teams from around the world have contributed actively at the Conferences of the Parties since the first such event in 1985. Specialist BirdLife staff now work alongside the Secretariat and Parties at each meeting of the Scientific Council and Standing Committee of CMS, and this co-operation extends to the equivalent bodies of the various Agreements. Central to the effectiveness of this relationship are the powerful BirdLife database of the world's birds, and the large and growing network of national BirdLife Partner organisations.

CMS and BirdLife share a vision, in which every endangered migratory bird species is given full legal protection, well enforced, in all of its Range States. A suite of imaginative Agreements covers all the appropriate bird families and groups, and Parties to the Convention co-operate along the full length of the flyways. The necessary resources are found to ensure that the age-old spectacle of bird migration, and the multitude of benefits that it brings to people, survive to be enjoyed by those who come after us. Working together, we can make this happen.

WETLANDS INTERNATIONAL AND CMS – PARTNERSHIP IN ITS PRIME

2004 marks the 25th anniversary of CMS and the 50th anniversary of Wetlands International. Co-operation between the two organisations is in its prime, as witness the Joint Work Plan concluded last year between CMS, AEWA and Wetlands International. WARD HAGEMEIJER, Head of WI's Wetland Species Conservation Programme, sums up a long and eventful association.

The Seventies were pivotal years for international awareness of the importance of the natural environment, with fauna a focal concern. This period gave life to key initiatives such as the Bonn Convention, the Bern Convention, the Ramsar Convention and the EC Birds Directive. CMS is unique among them for its worldwide focus on all migratory animals. Birds in wetlands and migratory species in particular, have been a focus of attention for even longer. Wetlands International's predecessor, the International Waterfowl and Wetlands Research Bureau (IWRB), has its roots in 1954 and the International Waterbird Census started in the mid-1960s. The Ramsar Convention on Wetlands of 1971, with its specific reference to the importance of wetlands for migratory waterbirds, was a direct result of international concern about wetlands and waterbirds.

Wetlands International strongly believes in CMS as one of the most robust tools for achieving effective international co-operation for the conservation of migratory species through concerted and coordinated action. It is therefore much involved in working with, and in support of, the CMS Scientific Council, as well as in common initiatives such as the development of an Agreement for the conservation of wetlands and migratory waterbirds in the Central Asian Flyway, and groundwork for a workshop at the forthcoming IUCN World Conservation Congress on Conserving Migratory Species in a Changing World: Opportunities and Challenges on the Road to 2010.

Wetlands International has enjoyed support from CMS in many past ventures, such as the first international meeting for the range states of the Central Asian Flyway, in Tashkent in 2001, as well as smaller species-related projects in Asia and South America. Wetlands International would like to congratulate CMS on 25 successful years and looks forward to strengthen co-operation on exciting opportunities to come.

CMS, WWF AND SUSTAINABLE DEVELOPMENT

Dr SUE LIEBERMAN, Director of WWF-International's Species Programme, congratulates CMS on its global contributions to conservation and applauds its increasing focus on sustainable development values.

Through the promotion and instigation of scientifically-based international co-operation to preserve the role of migratory species as unique components of global biodiversity, CMS has proved an important and valuable contributor to biodiversity conservation as a goal in and of itself, and as it underpins sustainable development. Governments around the world have committed to reduce the rate of biodiversity loss by 2010. As the international community moves to implement actions toward this target, WWF encourages governments, scientists, NGOs and communities to draw on the strengths of CMS and its Agreements to achieve strong conservation outcomes – which will also support and contribute to the achievement of the MDGs, and in particular to the alleviation of poverty.

For many rural and indigenous communities – amongst the poorest of the world's people – the biodiversity in natural ecosystems is the basis for their livelihoods. Conservation must have direct and equitable benefits for local communities, while governments need to undertake economic studies weighing up both the short and long-term effects of effective management of natural resources. Time and time again, WWF has found it makes financial sense to protect species and landscapes, for the benefit of local and indigenous communities.

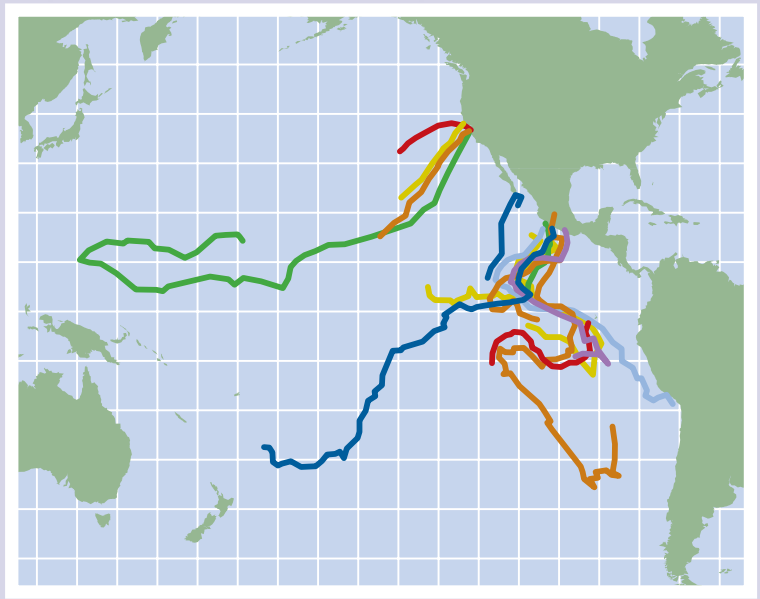
Working together with many partners worldwide, WWF's Species Programme aims to secure the long-term survival of flagship and other priority species through landscape-level and ecoregion-level programmes. Some of these 'flagship' animals are typically migratory species and WWF's work on them strongly complements that of CMS and its Agreements both regionally and nationally. An underlying principle of WWF's Species Programme is the need to link species conservation approaches to ecosystem outcomes and show the benefits of species conservation in a human development context.

A useful example can be found in marine turtles – a priority for CMS and its member states, as well as for WWF in our global conservation work. For centuries, marine turtles have been a source of food and subsistence for coastal communities in tropical and subtropical regions. Drastic declines in marine turtle populations are known to have been caused primarily by human activities such as over-exploitation, often for international trade; fisheries bycatch; and habitat destruction. As these marine turtle populations decline, they have less potential to generate jobs and income for coastal dwellers. Marine turtles are a strong example of how, through strategic assessment of the pressures upon, and conservation needs of, key species, organisations like CMS and WWF can work to catalyse new and inventive ways to manage species and habitats whilst maintaining or raising natural resource gains to local economies.

In the conservation realities of 2004 and beyond, species conservation efforts internationally are facing a number of challenges. We must all more clearly express the link between species conservation and sustainable development, and promote our experience and ongoing integrated landscape-based, threat-focused, community-based work. We must develop and circulate success stories and case studies, which show how species conservation methodologies based on work with local communities, demonstrate the intrinsic and ongoing role of and need for species-based work and funding to help drive and deliver our outcomes.

WWF sees CMS as an important contributor to achieving these ambitions and is committed to building partnerships and working together on concrete field and policy-oriented community-based sustainable development programmes, which fully integrate biodiversity conservation, poverty alleviation, and equitable sustainable development.

The remarkable journeys of Leatherback turtles are logged over long periods and distances by using satellite telemetry to track radio-collared individuals. Redrawn from digital map image supplied by Scott A. Eckert.



THE JOURNEY CONTINUES

Hazards and opportunities

On the move for the past 25 years, the Convention has come a long way. Unlike the proverbial rolling stone, it has gathered a substantial tally of achievements. In proportion to material resources, this track record stands comparison with international agreements as a breed – and in certain respects exceeds the average.

But there is still far to go. New challenges are constantly demanding to be tackled, not least the background threat of adverse effects of climate change on the living world and the overriding need to match pro-biodiversity activities to the sustainable development imperative, and especially to the poverty reduction and livelihood creation agenda declared in the MDGs (page 27).

More specifically, the architects of future achievements under CMS know they must get to grips with problems and dilemmas associated with global economic, technological and industrial change. Not least among these are unforeseen threats like the swift proliferation of alternative energy technologies such as wind turbines (page 32) and the worsening impact of more familiar energy-related problems such as power line networks or oil pollution at sea (page 31), both of which still present a serious and growing menace to the safe passage of migratory birds and other animals.

Habitat loss or degradation resulting from desertification, land use conversion and urbanisation is another threat that gives rise to increasing concern, the more so because it is driven by complex factors tied in with human development, such as population growth, food security, and rapid growth and overcrowding of cities and the spread of urban settlements at their fringes. There are no easy answers to the puzzle of striking a sound compromise between these factors and the competing needs that go with safeguarding natural biodiversity, environmental quality and cultural identity.

This section explores some of these continuing and emerging challenges in detail. It also features messages from some of the countries that have made the Convention their own by adopting and ratifying it in recent months and years. The many direct advantages Parties have gained in terms of using the framework it provides to inform and strengthen their own planning and policy agendas for sustainable development are not the whole story. It is no secret that the more countries follow their example, the sooner can major gaps be filled in the geographical coverage of the Convention and its ancillary agreements, and the easier it will be to impel migratory species concerns into the mainstream of international relations and global public awareness.

No aspect of the CMS prospectus is more important than the Convention's alignment with mainstream efforts by the world community to achieve the sustainable development targets set in the MDGs and the Plan of Implementation adopted at the WSSD, held in Johannesburg, South Africa in August and September 2002. A CMS submission on Migratory Species and their Value to Sustainable Development was presented at WSSD and a number of subsequent reviews have added detail to its broad argument.

CMS and sustainable development

CMS instruments and activities are intended to bring longer-term benefits for indigenous peoples and local communities, benefits that are inextricably linked to the natural resource base. CMS promotes programmes that provide for alternative livelihoods, while reducing short-term pressures on wildlife populations. Through its many activities focused on Africa, CMS is also helping to build a bridge of co-operation between developed and developing countries. These activities include re-establishment of viable populations of antelopes and gazelles in the Sahelo-Saharan region, conservation of marine turtles in the Atlantic and Indian Ocean coastal areas, and the sustainable use of migratory waterbirds and their habitats.

CMS and its instruments also speed the attainment of sustainable use goals by putting in place co-ordinated management tools. For example, many CMS instruments seek to harmonise national hunting legislation to ensure their coherent application across the migratory range of a species. Guidelines can be developed to assist countries in sustainable use planning. For example, the African Eurasian Waterbird Agreement (AEWA) has produced sustainable harvesting guidelines for migratory waterbirds, as well as for eco-tourism at wetland sites. The European Bats Agreement (EUROBATS) is developing bat-friendly forestry practices to ensure that vital ecosystem services bats provide continue unabated. Another Agreement, on cetaceans of the Black Sea and Mediterranean Sea (ACCOBAMS), encourages whale-watching practices that benefit whales and help to sustain a flourishing tourism industry.

It is widely recognised that the majority of the world's marine fisheries are unsustainably exploited. One of the major problems facing marine ecosystems is fisheries bycatch, whereby vast numbers of non-target species, including migratory animals, are captured incidentally and discarded. Bycatch in various types of fishing gear such as gill nets, trawls and long-lines threatens populations of small cetaceans, marine turtles and seabirds such as albatrosses and petrels. All of these are highly migratory. Several CMS Agreements specifically aim to address this problem through activities to reduce or avoid bycatch.

Environment and development decisions taken with regard to water resources, oceans, agriculture, desertification, mountains, tourism, forests and mining, may directly or indirectly affect migratory species. To maximise the use of increasingly scarce financial resources and technical expertise, States need to work together to conserve and sustainably use shared biological resources such as migratory species. Co-operation

across the entire range of these species ensures that funds for conservation are used more efficiently, and encourages the application of consistent policies from one Range State to the next. The Convention on Migratory Species provides the international legal framework which over 100 States already use to secure lasting benefits from the valuable resources that migratory species represent.

CMS and the Millennium Development Goals

The Convention on Biodiversity (CBD) has firmly committed itself to demonstrating that biodiversity conservation contributes to sustainable development by addressing Millennium Development Goal Seven (MDG7) set forth in the 2000 Millennium Declaration of the United Nations, which is directed towards ensuring environmental sustainability by 2015. The Parties have adopted a Strategic Plan which commits CBD to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty alleviation and to the benefit of all life on Earth.

In September 2002, world leaders meeting at the WSSD in Johannesburg agreed a Plan of Implementation for achieving sustainable development, building on past agreements and achievements. Through this process, Parties to CBD sought to rally WSSD endorsement behind this ambitious goal. WSSD recognised the CBD as 'the key instrument for the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from use of genetic resources' and (in reworded form) validated its target of achieving by 2010 'a significant reduction in the current rate of loss of biological diversity', adding that this effort will require provision of new and additional financial and technical resources and certain further actions, among them moves to capture effective synergies between CBD and other multilateral environmental agreements.

The 2010 target is seen as an intermediate step towards achieving MDG 7 and CBD's current work programme is being correlated with targets and indicators that accord with this overarching agenda so that CBD can measure its performance in terms of contributing to the realisation of MDG7 in the early run-up to 2010.

For CMS, the 2010 target represents an opportunity to structure the Convention's work in ways that direct it more positively towards outcomes and to consider how best to measure the status of migratory species and the contributions of CMS to the MDGs. This has implications for the forthcoming Strategic Plan and any future plan of implementation. In addition to contributing a migratory species indicator to the global biodiversity indicator required by 2010, CMS needs to come up with a set of sub-targets and indicators against which it can measure its own performance in relation to the globally agreed biodiversity agenda.

Wildlife conservation and management can no longer be considered in isolation from development issues. Other bodies such as WWF (see page 25) already link species conservation to development in almost every aspect of their work, recognizing development as the key to species conservation and vice versa. CMS needs to make the link in its turn, both for conservation reasons and in terms of its standing as an international achiever whose work proves that science and development can co-exist productively.

The need for a shift towards aligning CMS also more closely with today's global biodiversity and development agenda is currently under discussion by Parties and their representative bodies, particularly in the context of steps to formulate the next CMS medium-term Strategic Plan. Though such a shift would help CMS better demonstrate the value of its work, it needs to be achieved without abandoning the Convention's science and wildlife management roots. Other areas where CMS probably needs to grow is in its work on conserving habitats and ecosystems, regulating sustainable use, quantifying threats and evaluating cultural connections between migratory species and people. Work on Environmental Impact Assessments could also form part of a package offered to Parties that would enable them to take action.

Finally, CMS needs to draw the attention of governments to how species conservation, and in particular migratory species conservation, contributes to CMS and CBD obligations alike, and at one stroke. To make this connection obvious CMS will need help from is partners, initially through the provision of case studies and examples of good practice. Aligning CMS with WSSD development goals may open the possibility for more funding but a concerted effort will first be needed from developing country Parties that are also CBD Parties, to request the CBD COP to instruct GEF to fund projects on migratory species.

Millennium Ecosystem Assessment

In February 2003, CMS was invited to join the board of the Millennium Ecosystem Assessment (MA), an international work programme launched in 2001 that generates scientific information on the consequences of ecosystem change for human wellbeing and options for dealing with those consequences. The MA is intended to cater to the assessment needs of other inter-governmental agreements besides CMS, including the CBD, the Ramsar Convention and the Convention to Combat Desertification, as well as to the private sector and civil society.

The MA's focus is on the benefits people obtain from ecosystems, and how to husband these ecosystem services in the face of change. It operates on a range of scales, from local through watershed and national, to regional and global, using a diverse array of sources, including the knowledge of local communities, indigenous peoples and private sector enterprises.

A message from Hamdallah Zedan, Executive Secretary of the CBD

CMS and the CBD – a partnership of equals

Despite its youth, the Convention on Biological Diversity (CBD) is often cited as the world's 'umbrella' biodiversity convention. Its implementation requires partnerships with other organizations such as CMS to capture synergies. The recent CBD Seventh Meeting of the Conference of the Parties (COP7) again emphasised the importance of an active CBD-CMS synergy, building on its previous (2002) declaration that migratory species are a unique component of biodiversity and that CMS is CBD's lead partner on migratory species. But how do the two treaties add value to each other? Does this interplay extend beyond rhetoric?

It certainly does. Migratory species are unique because they move between different habitats in different places at different times. Necessity therefore dictates that spatial and temporal dimensions be added to species, habitat and ecosystem conservation efforts. As migratory species often move across international borders an obvious additional need is for international co-operation to link species- and ecosystem-based approaches at national levels and coordinate them across a migratory range, something that is CMS's speciality.

Migratory species have a high profile in the various CBD work programmes that help set the global agenda on biodiversity conservation and sustainable use. Migratory species, and CMS, figure most notably in CBD activities on protected areas, the ecosystem approach and as indicators of progress towards the 2010 target.

The CBD agenda has shifted significantly from one of policy and strategy formulation, to a phase clearly marked by the urgent need for implementation of existing instruments. Tools such as the CBD-CMS Joint Work Programme, assisted through enhanced collaboration between the two Secretariats, help countries better integrate migratory species considerations into biodiversity strategies and action plans. These are exciting, tangible examples of how the two Conventions work together. We are using migratory species to build connections not just between conventions, but across ecosystems, countries, cultures and communities. They offer significant opportunities to promote further synergies amongst our common objectives.

Complementarities

The preamble to the CBD expresses a desire to enhance and complement existing international arrangements for the conservation of biological diversity and sustainable use of its components, which includes CMS. Article 22 specifically recognises that the CBD should not weaken existing international conventions, and the Conference of Parties has been very clear in its desire to work with other 'biodiversity conventions' such as CMS. Article 5 encourages CBD Parties to cooperate directly through international organizations on matters of mutual interest. This is the primary basis for linking CMS to CBD, encouraging CBD Parties to work through CMS to conserve/sustainable use migratory species. The National Biodiversity Strategies and Action Plans called for under Article 6 of CBD provide an ideal mechanism for ensuring that conventions affecting biodiversity are coordinated at national level, to ensure they are mutually reinforcing to the utmost extent possible. In its Article 7, the CBD specifically recognises the importance of ecosystems and habitats required by migratory species. It also calls attention to species and communities which are threatened. Article 8, dealing with in situ conservation outlines a series of measures to protect ecosystems, preserve natural habitats, and maintain viable populations of species in natural surroundings. Many other elements of the CBD are relevant to CMS, but of particular importance are Article 10 on sustainable use of components of biodiversity (CBD terminology for species) and Article 16, which deals with technology transfer. While Parties to the CBD may have been interested especially in biotechnology, other kinds of technology are highly relevant to CMS, such as satellite telemetry, echo-location and ultrasound technologies for tracking animal movements.

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MIGRATING BIODIVERSITY

JEFFREY A. McNEELY, Chief Scientist at IUCN (the World Conservation Union) offers some home truths on what CMS can contribute to international efforts to conserve biodiversity and the sustainable use of biological resources.

Under the CBD, which now has 188 parties, governments have sovereignty over their own biodiversity, and accept responsibilities to conserve biodiversity, use biological resources sustainably, and ensure the equitable distribution of benefits arising from using genetic resources. Sovereignty and responsibility carry strengths and weaknesses: strengths because responsibility is clearly assigned; weaknesses because species do not recognise governments and freely move across international borders.

CMS helps to strengthen measures under the CBD that affect species whose annual movements take them between countries. While the CBD seldom specifically mentions migratory species, many of its measures are akin to those of CMS and indeed of other biodiversity-related conventions such as Ramsar and CITES. While more specialised conventions, including CMS, properly focus on specific issues, it is apparent that real progress will be made only against a background of solid achievement at international policy level.

The CBD offers a useful forum for addressing key issues. But it, too, suffers from a major shortcoming. The real power in today's global economy is in the World Trade Organisation (WTO), which is also very much a migratory species convention. As the CBD enters more into the arena of dealing with trade-related issues, such as the problem of invasive alien species, it will need to mobilise a much stronger constituency of biodiversity-related interests that will be of sufficient magnitude to at least encourage the WTO to consider the issues being addressed under the biodiversity umbrella.

The CBD and CMS might also enlist the co-operation of the Framework Convention on Climate Change, making the argument that migratory species of animals that are being protected under CMS may find climate change's potential to disrupt established migratory pathways an additional challenge.

The CBD and CMS might also join forces to spur international co-operation in transboundary protected areas, which protect habitats of species that cross international borders. For example, the Greater Limpopo Transfrontier Peace Park involves co-operation between South Africa, Mozambique, and Zimbabwe and offers protected habitat for migratory populations of elephants and various other ungulates.

We must be realistic in assessing where power is exerted at national and international level, and sophisticated in finding ways to present our conservation and sustainable use arguments in terms that resonate in the corridors of power. The larger the constituency we mobilise, in the international community and civil society, the better.

CLIMATE CHANGE AND MIGRATORY SPECIES

WIL BURNS, Assistant Professor, Department of Environmental Studies, University of Redlands, Redlands, California and Co-Chair of the American Society of International Law – Wildlife Interest Groups looks at the emerging issue of climate change in the context of migratory species and the aims of CMS.

The phenomenon of climate change was recently portrayed as 'perhaps the broadest and potentially most catastrophic environmental predicament confronting humans'. Some of the direst consequences may in fact be visited upon the world's wild flora and fauna. A recent study concluded that climate change could result in the extinction of 15 to 37 per cent of species by 2050, eclipsing habitat destruction as the greatest threat to wildlife species in this century and beyond. Migratory species may be particularly at risk because they are dependent on the viability of separate climate-sensitive breeding and winter habitats as well as stopovers in their migratory routes.

There is growing evidence that climate change is strongly affecting migratory species. A recent study concluded that some long-distance migratory birds are responding to warmer spring temperatures by migrating over three weeks earlier than usual. This can mean their arrival is no long synchronised with the appearance of seasonal food sources such as insects, flowers and berries at destination sites, a grave disadvantage.

In other cases, migratory species are arriving too late. Caribou, for example, are finding that vegetation in their spring feeding grounds in Canada has gone to seed because spring is arriving earlier in the region, denying them a critical source of food.

Climate change may also imperil migratory species by contributing to the loss of critical ecosystems. For example, in the Antarctic, where 90 per cent of the great whales feed, sea ice may decline by more than 40 per cent this century because of rising temperatures, leading to a decline in the production of sea ice algae, the primary source of food for the zooplankton species krill, which in turn is the primary food resource for whales. This shift may further reduce populations of species already severely depleted due to overexploitation by the commercial whaling industry, including Blue and Humpback whales.

Rising temperatures could also convert 40-57 per cent of Arctic tundra to forest lands, eliminating critical habitat for many Arctic waterbird species. This may mean losing up to half the geese in the region and witnessing steep declines in many other species.

The primary inter-governmental response to climate change is embodied in the United Nations Framework Convention on Climate Change and the Kyoto Protocol. Even if it enters into force (unlikely while the US, responsible for 25 per cent of the world's emissions, rules out ratification), the Protocol may not reduce the greenhouse gas emissions of its Parties by more than a few percentage points below 1990 levels.

By contrast, stabilising atmospheric concentrations of greenhouse gases will ultimately require global reductions in emissions of 60 to 70 per cent or more. Given the glacial pace of efforts to combat climate change, CMS has a role to play in developing strategies for protecting migratory species from adverse impacts of climate change. At their Sixth Meeting, the Parties requested that the Scientific Council establish a small working group to assess scientific research on climate change and to foster collaboration with other relevant regimes. Climate change may indeed prove to be the gravest future threat to many migratory species. We can only hope that the world's institutions and its political leaders are up to the challenge.

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ENVIRONMENTAL IMPACT ASSESSMENT – A VITAL TOOL FOR IMPLEMENTING CMS

DAVE PRITCHARD, International Treaties Adviser for BirdLife International, considers what EIA can add to global conservation efforts and welcomes its integration into the work of CMS.

Long established in many countries as a legal requirement in land-use planning and industrial processes, Environmental Impact Assessment (EIA) is a process for predicting and evaluating the effects of an action or a series of actions on the environment, then using the results in decision-making. Strategic Environmental Assessment (SEA) focuses on impacts at the strategic scale of programmes, plans and policies. In the framework of CMS and the Convention text itself frequent reference is made to taking action in anticipation of impacts that might affect migratory species in the future. Such mentions imply the application of some suitable process for predicting and evaluating relevant effects, including those creating obstacles to migration, and transboundary effects involving migratory species. EIA is also expressly referred to in some of the Agreements under the Convention.

In recent years, Contracting Parties have increasingly sought help to deliver and further develop this basic idea. Identified needs include ways and means to exchange experience and technical advice, to identify best practice and to know where to go for the best guidance and support. EIA also features in efforts to ensure consistency between CMS and other biodiversity-related conventions. There is also a need to articulate basic principles of EIA in the CMS context and for specific guidance on assessing impacts on migratory species.

Research has shown that species and ecosystems have received relatively low-grade attention in EIA practice so far, compared with the attention paid to pollution, landscape and noise impacts. BirdLife International and other NGOs are striving to improve this situation, for instance by drafting policy and technical guidance material for the Ramsar Convention, CMS and the Convention on Biological Diversity. CMS Conference Resolution 7.2, adopted in 2002, draws on a common set of guidelines that apply equally to the CBD, Ramsar and the CMS. In this respect, EIA is a successful example of the much-vaunted synergy between conventions. The Resolution also sets forth other steps and considerations for using EIA and SEA to help implement the Convention. It is a landmark summary of thinking and commitment on this topic for the 21st century, and has been widely welcomed.

There are other reasons to be positive about current prospects. One is that the global community of impact assessment professionals has in recent years turned its attention increasingly to ecological issues, including links to the biodiversity-related conventions, facilitated by BirdLife and others. In particular, the International Association for Impact

Assessment (IAIA) has raised its capacity to provide advice and expertise to Contracting Parties, the Secretariat and the Scientific Council. 'Globalisation' of a shared impact assessment agenda is desirable, because systematic and consistent EIA regimes help to create stable and reliable operating conditions over a wide area, and reduce bias and abuses in planning systems. It is also desirable to prevent environmentally damaging activities from clustering in those countries which have the weakest standards of protection. We are still at an early evolutionary stage of this process. In future 'on the ground' testing will tell us whether EIA measures pursued through conventions are meeting real needs. In general, there is still a need for better post-project monitoring of the impacted environment, and verification of predictions.

Conserving living resources never boils down to a single prescription or an action taken at one point in time. It relies on continuing management, weighing of dynamic balances, feedback, adjustment, and predictions based on judgement. Thus even if we were to imagine a regime in future where every policy and law favoured the conservation of migratory species, EIA would still be required from day to day, for analysing in a rational way and informing the balances, choices and judgements we make. In this light, it is clear that EIA is and always will be essential to implementing CMS to the full. And the need is mutual, given that frameworks like CMS offer a structure of policy direction, checks and balances and feedback mechanisms that can be used to test and refine the theory and practice of EIA.

SYRIA – GLOBAL INSIGHTS BOOST NATIONAL PLANNING

Dr AKRAM ISSA-DARWISH assesses gains in terms of conserving biodiversity and national heritage since Syria joined CMS in 2002.

Syria lies at the western edge of Asia. An ancient land whose history goes back thousands of years, it has witnessed the rise and fall of many civilizations. Though centuries of human exploitation have severely degraded the abundant natural flora and fauna that once graced this rich and fertile region, Syria is still home to over 2700 species of wild animal including some 354 bird species. Of these 156 are migratory, either passing through or wintering. At least 21 are listed as threatened on the IUCN Red List but the number may prove to be much higher once ornithological studies are underway in Syria to survey this major segment of the Western Palearctic flyway, a critical resting stop for migrating birds, particularly birds of prey.

The mammals of Syria – of which a small number of species are migratory at the regional level – suffered more than any other group of animals through loss of habitat, competition from grazing sheep and goats along with uncontrolled hunting. Most environmental threats in Syria are directly or indirectly influenced by a rapidly expanding human population that is rising in numbers at an annual rate of 2.6 per cent.

Since becoming a Party to CMS in December 2002, Syria has embarked on a number of activities designed to fill missing links in local legislation and the gaps in the knowledge that need to be remedied before such legislation can be soundly based. The national Law of Aquatic Organisms is already being amended to meet the requirements of conservation of marine animals, including migratory species. The discovery in Syria on spring 2002 of a relict colony of the last wild survivals of the eastern population of Northern Bald ibis stressed once again the yet unrevealed complete importance of the country. It is hoped that the measures taken to protect the Northern Bald ibis, will be a showcase precedent that paves the way for future actions on behalf of many of the country's other biological treasures. Many species listed on the CMS Appendixes also form part of Syria's Biodiversity Components under the CBD.

The Hunting Law in Syria is another example of ongoing action. A ten-year moratorium on hunting in Syria is due to come to an end in 2004. In some ways this ban was a move in the right direction but it proved unrealistic due to many violations by local communities and others, and the lack of any awareness campaign before or after the law was passed. Today, advice and the knowledge obtained through CMS is proving an essential input to steps to update and review implementation.

Among the main areas of interest for habitat conservation are the Syrian wetlands and semi-arid steppe zones with their globally significant biodiversity and grounds for breeding raptors, storks and cranes, thought to involve up to three million birds a year.

One of the most important sites is Al-Jabbul, a shallow salt-lake in semi-arid steppe near Aleppo, Syria's second largest city. This 37,500 hectare lake is an important area for the staging and wintering of migratory waterfowl, including storks, cranes and flamingos, and as a breeding ground for many globally threatened waterbird species. In short, Syria looks forward with great confidence to launching wider implementation of CMS Action Plans and gaining significant further national benefits through the global insight the Convention offers.

Al-Jabbul lake near Aleppo, Syria *Far right:* Northern Bald ibis nesting.

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OIL – AN EVER-PRESENT THREAT

DAVID M. FLEET of the State Office for Germany's National Park Schleswig-Holstein Wadden Sea argues that there is still a long way to go before the threat oil pollution poses to the marine environment can been reduced to an acceptable level.

The 20,000 birds found dead or dying on Spanish beaches after the Prestige oil spill in November 2002 were only the tip of an iceberg. It is estimated that hundreds of thousands of seabirds fell victim to the oil from this incident alone. Shipping accidents leading to heavy wildlife losses are still a regularly occurring event on European coasts and in coastal waters worldwide. Yet they are not the only sources of oil pollution that kill marine animals. Numbers of animals oiled after contact with everyday illegal operational discharges of oil from shipping are harder to estimate but this chronic problem is regarded as a larger threat to the marine environment, causing mortalities that run into hundreds of thousands every year.

Waterbirds, especially seabirds, are the main victims. Species that depend on the marine environment for food, especially diving species that spend a lot of time on the water surface, such as auks and sea-ducks, are the hardest hit. Birds are exceptionally vulnerable to the effects of contact with oil because the oil sticks to their feathers which lose their insulating function. Marine mammals and reptiles, however, can also be common victims of oil pollution incidents in some areas. Marine mammals such as Sea otters are susceptible to oil contamination too. Oiled animals immediately attempt to preen or groom the oil out of their feathers and fur. This behaviour leads to the ingestion of oil. Affected animals can no longer remain on the water and move onto the shore where they die of hypothermia and poisoning.

Only a small fraction of oiled birds can be caught and cleaned. Most oil victims die. Although losses are high, the population consequences are hard to detect. The distribution of birds at sea is patchy and the population dynamics of many affected species are insufficiently monitored. Analysis by the British Trust for Ornithology of ringed Guillemots recovered during the Tricolor and Prestige oil spills has, however, shown that oil pollution could affect bird populations. The Tricolor oil spill in the English Channel in 2003 for instance affected mainly adult birds from the east coast of Scotland. Loss of adult birds in this long-lived species, which raises at the most one young a year, could certainly affect local populations. An alarming scenario is the possibility of a late summer oil spill in the mouth of northern Germany's River Elbe, where shipping density is very high. Nearly the entire northwest European population of the Shelduck migrates each year to the mudflats of this region to moult. An oil incident here could potentially wipe out most of this population.

Is the oil pollution situation improving? Counts of oil victims on sea coasts (so-called beached bird surveys), have been used for decades to measure the level of oil pollution in adjacent waters. The proportion of oil victims in the birds found dead on beaches – the oil rate – is used as an indicator. The results of these surveys in a number of countries bordering the North Sea indicate a steady improvement, with declining oil rates over the past 20 years. Regional variation in the oil rate is large and depends on the level of human activities such as shipping, in neighbouring waters. In waters with a high concentration of shipping traffic the proportion of oiled birds is still unacceptably large – over 50 per cent in some species.

International, national and regional anti-pollution regulations have certainly helped cut numbers of birds killed by oil pollution in recent years. Technological advances in shipping, surveillance of shipping movements and rescue facilities have improved but more are needed. Also needed are more reception facilities for oil residues in harbours and better enforcement standards to make sure illegal oil discharges never go unpunished. Accidents involving ships and oil platforms will always happen but by applying state-of-the–art technology it should be possible to reduce such occurrences to a minimum.

Populations of the Marine otter on the coast of Peru are severely affected by industrial pollution and other impacts of human activities as well as by the periodic El Niño ocean current warming effect.

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CMS IN LATIN AMERICA AND THE CARIBBEAN

The fauna of the Latin America and Caribbean (LAC) region is very diverse and includes many migratory species, a growing number of which are listed on the CMS Appendices as threatened or endangered. CMS has responded to this situation through a number of activities in the region, including a regional fact-finding workshop in Lima, Peru in 2001. More recently (in October 2003), a Western Hemisphere Conference on Migratory Species was held in Termas de Puyehue, Chile. This forum marked the launch of an historic initiative on behalf of Western Hemisphere migratory species in response to the call by the 2001 Summit of the Americas to develop a regional conservation strategy for these species. This initiative will focus on migratory birds at the outset, broadening to all migratory animals by the year 2005.

CMS has also sponsored a Workshop (held in Valdivia, Chile in October 2002) on the Conservation Status and Research Priorities of Aquatic Mammals in Latin America, which involved nearly 80 specialists from around the region. Initial contact has also been made with the Secretariats of two regional MEAs, the Convention for the Protection of the Marine Environment of the Wider Caribbean Region and the Inter-American Convention for the Protection and Conservation of Marine Turtles. CMS has lately worked with BirdLife International and Wetlands International on a range of conservation projects in South America and at least ten projects supported by the CMS Small Grants Fund are underway around the region, including studies on the Andean flamingo (see page 13) and scarce migratory grassland birds in Argentina.

Large numbers of Marine otters occur on the coast of Peru, often in association with another CMS Appendix I listed animal, the Humboldt penguin. Both are subjects of Concerted Actions under the Convention, to stem adverse impacts of human activities ranging from destructive hunting and fishing activities to industrial and urban effluent pollution. The periodic ENSO (El Niño Southern Oscillation) ocean current warming effect has also contributed to the decline of both species. A CMS project is underway in the area, led by the Peruvian Association for the Conservation of Nature (APECO) in collaboration with the National Institute of Natural Resources (INRENA) of the Peruvian Ministry of Agriculture. It takes the form of a survey of the population status quo of both animals and an assessment the risks they face, with a view to identifying areas of Peru's southern coast suitable for designation as protected or managed areas. Once the survey is complete, a workshop will be convened involving experts and authorities from Chile and Peru to explore the potential for a bilateral Agreement under CMS covering either or both of these species in the wider region.

BIRD PROTECTION IN A WIRED LANDSCAPE

DIETER HAAS and MARKUS NIPKOW of NABU (BirdLife Germany) survey the threat that power transmission lines and towers can pose to migratory birds.

Around the world, the widespread availability of electricity has become part of normal living standards. The transport of electricity from power plants to users is mainly along above-ground power lines. Worldwide, this 'wiring' of the landscape continues to advance even into the most remote parts of the world. Most power lines constructed so far pose fatal risks for birds and significantly affect the habitats of large migratory birds in their breeding, staging and wintering areas. Many birds use electricity structures for perching and vantage points, nesting, obtaining shade, and sensing air currents. Electrocution occurs when the bird makes simultaneous contact with two conductors or conductor and pole.

NABU, the partner organization of BirdLife International in Germany, has been investigating this subject for over 20 years, co-operating with other NGOs as well as with electricity companies and the Federal Ministry for the Environment. After early success related to a bird protection clause for technical design guidelines, national progress was made in 2002, when for the first time the German Nature Conservation Law regulated bird conservation at electric power facilities. Under the Law, new power poles must be constructed in ways harmless for birds and electricity companies must abolish dangerous types of poles within 10 years.

NABU next raised its efforts to tackle the electrocution death of birds to the level of international co-operation. NABU's electrocution working group mounted a research project in eastern and southern parts of Europe. Alarming incidences of electrocution risks had been documented in countries like Poland, Estonia, Czech Republic, Hungary and Slovakia which contain major breeding areas, migration routes and resting sites for many threatened bird species. The study results much improved NABU's knowledge of both the extent of the problem and possibilities for solving it.

Together with the German Ministry of the Environment, and supported by BirdLife International, NABU submitted a draft resolution on electrocution of migratory birds at the Seventh meeting of the CMS Conference of the Parties in September 2002. The resolution text and its annex included technical guidelines to protect birds from electrocution. It was adopted as Resolution 7.4 by delegations of more than 80 countries. The brochure in the annex was published and contains technical standards for safer construction as well as mitigation within the medium voltage range. NABU, its partners, and the CMS Secretariat hope that these guidelines will be energetically supported and implemented in the years to come, in as many countries as possible.

For the 23rd meeting of the Standing Committee of the Bern Convention in December 2003, NABU presented the essentials of a follow-up report submitted to the Council of Europe. It set out to apply the guidelines to non-migratory birds and to enlarge on the collision risk posed to birds, and on negative impacts of above-ground power lines on staging and wintering habitats. NABU's report *Protecting Birds on Power Lines* now covers all these aspects. It serves as a basic tool for the draft recommendation submitted to the Bern Convention, and for further development of that issue within the Bonn Convention, with a view to adoption of worldwide guidelines in due course.

Legislating for safer power lines

The Resolution on Electrocution of Migratory Birds adopted by COP7 focuses on the following essentials: It calls on all Parties and Non-Parties to include appropriate measures in legislation and other provisions for planning and consenting medium-voltage electricity transmission lines and associated towers to secure safe constructions and thus minimise electrocution impacts on birds. It encourages constructors and operators of new transmission lines to incorporate appropriate measures aimed at protecting birds against electrocution.

More specifically, it calls on Parties and Non-Parties alike to suitably neutralize existing towers so that birds are not allowed to roost on parts dangerously close to live transmission equipment. The Resolution also encourages constructors and operators to co-operate with ornithologists, conservation organisations and competent authorities with a view to reduce the electrocution risk posed to birds from transmission lines. In respect of collisions and electrocution on electricity transmission lines of railway infrastructure and other related issues, the resolution finally requests the CMS Secretariat to collect more information concerning that area of concern in the future.

Two White storks (*Ciconia ciconia*) on a mitigated power pole. The dangerous upright insulators have been safeguarded using plastic molded caps.

© Fiedler/NABU

WINDFARMS AND BIRDS – A 21ST CENTURY DILEMMA

ROWENA LANGSTON of BirdLife in the UK examines some implications for migratory bird movements of a swiftly expanding renewable energy technology.

The generation of electricity using wind turbines is a topical and controversial issue. It can be hard to find objective information on the impacts of this technology on migratory birds. A recent BirdLife International report commissioned by the Council of Europe for the Bern Convention, seeks to present an objective review of the available information on the impacts of wind turbines on birds and to provide guidance to minimize the risks of such impacts. The main hazards for birds associated with wind turbines are collision, disturbance displacement from otherwise suitable habitat, and direct loss of habitat due to turbines, their access roads and other infrastructure. There are high profile instances where wind turbines have caused unacceptable levels of collision mortality of birds. From a biological perspective, collision mortality due to wind turbines is most likely to be a problem for large, long-lived species that are slow to mature and have a low reproduction rate. Even relatively small increases in mortality rates may be significant for populations of such species, particularly when cumulative mortality occurs across their migratory range, notably so for rare species.

Many factors influence bird flight behaviour, and hence the risk of collision. Collision risk is greatest in poor flying conditions, such as strong winds, or the absence of rising winds for soaring species, that affect the birds' ability to control flight manoeuvres, or in rain, fog, and on dark nights when visibility is poor. It is recognised that the actual rate of collision is likely to be under-recorded. In studies involving corpse searches, it is essential that calibration (allowing, for instance, for scavenger removal) is undertaken at each site to enable correction factors to be applied to produce more realistic estimates of collision mortality. Remote sensing techniques such as radar and thermal imagery are particularly useful for offshore studies, where the problem of recovering dead birds is compounded.

What factors determine whether or not there is an adverse impact due to direct habitat loss or disturbance exclusion? The scale of habitat loss will be one indication, together with the extent of availability and quality of other suitable habitats that can accommodate displaced birds, and the conservation status of those birds. Disturbance may arise from the presence or noise of the turbines or owing to increased human activity nearby, such as maintenance visits, often in areas where there was little human activity before the wind farm arrived. Loss of (or damage to) habitat resulting from wind turbines can be a concern in sensitive habitats.

Wind turbines can impede bird movement. Whether or not this is a problem will depend on the size of wind farm, spacing of turbines, the extent of displacement of flying birds and their ability to compensate for increased energy expenditure. The cumulative effects of large wind farm installations may disrupt ecological links between feeding, breeding and roosting areas. Wind farms could be designed in ways that avoid any barrier effect. Research and post-construction monitoring at several pilot sites will be necessary to establish whether (and where) this is a feasible solution. In addition, it is clear that there is a need for robust, objective baseline studies to inform sensitive siting of wind farms to minimise harmful effects on birds, other wildlife and their habitats, and for post-construction monitoring at installations where there are environmental sensitivities. A distinction needs to be drawn between effects of a temporary versus those of a permanent nature, and between other variables such as scale.

Furthermore, there is a need to properly consider the environmental benefits and costs of different energy solutions. Many unknowns still hamper sound decision-making. Until these are cleared up, on precautionary grounds wind farms should not be sited in statutory or qualifying international (such as Natura 2000) protected areas, or national sites for nature conservation, or other areas with large concentrations of (or home to) species of conservation concern. Most evidence so far suggests locations much used by birds, especially by protected species, are inappropriate sites for wind farm development.

Lynetten windfarm consists of 7 Bonus 600 kW wind turbines with a hub height of 50 m. They are placed on a dyke in Copenhagen Harbour near a sewage plant and other industrial facilities.

© Zenit/Greenpeace

BYCATCH – RESOLVING AN ISSUE OF URGENT GLOBAL CONCERN

MARGI PRIDEAUX, Executive Director of the Whale and Dolphin Conservation Society's Australasia regional office and International Coordinator for the Society's CMS Programme, sizes up the importance of the CMS bycatch resolution and other aspects of the role of CMS in this landmark initiative.

Bycatch, the accidental capture of a non-target species during fishing operations, is common and alarmingly widespread. An estimated 20 to 25 per cent of the global fisheries catch is discarded into the sea, translating to some 20 million tonnes of marine life lost each year. Marine mammals, sea birds, turtles and sharks get caught in trawls, seines, hooks and lines, gillnets and driftnets and even lines of pots or creels. The species level impact of bycatch can be acute in the case of long-lived and slow-reproducing marine mammals and birds. The very structure and function of marine systems at the population, community and ecosystem levels are probably also being affected. In response to this escalating threat, CMS has taken a firm stand within the international community by addressing the issue of bycatch and migratory species in the form of strongly worded resolutions at successive COP meetings (see below).

Like so many marine conservation issues, bycatch is a problem that has until recently remained at sea. Insufficient data and poor levels of observer coverage across the world fishing fleet have meant that the reality of bycatch has only lately come into focus. Flagship species like the Macquarie Island Wandering albatross and Amsterdam albatross are close to extinction. Marine turtles, bycaught across their migratory range, have also prompted international concern. Over the past ten years an average 6000 harbour porpoises were bycaught annually in fishing operations around the North Sea. Populations will not recover until bycatch rates are sharply reduced. Other species have not yet had the benefit of high-profile attention. Some cetacean species, such as the vaquita, a small porpoise found only off Mexico in the Gulf of California, risk extinction through bycatch. Similar cases, such as bycatch of Irrawaddy dolphins, are under investigation but not yet subject to remedial action. A recent estimate of marine mammal bycatch concluded that the global toll of cetaceans may top 300,000 per year. Not all the news is bad. CMS has a positive track record on bycatch and has established no fewer than five instruments that tackle the issue.

The Food and Agriculture Organization (FAO), too, has agreed International Plans of Action for reducing bycatch of sharks and sea birds. New fishing techniques are being piloted in the Southern Ocean to reduce sea bird mortality, while turtle excluder devices are now required in many Indian Ocean and South Pacific fisheries. Various countries and regions have also taken tentative steps towards regulating bycatch in their jurisdictions. Yet all this international activity has only scratched the surface of the problem. Many species remain invisible to any mitigation regimes. A CMS Recommendation (7.2) calls on Parties to compile information and take action regarding fishing activities within their jurisdiction as a first step towards addressing the problem. Others are schemes to assess the impact of bycatch on migratory species, research in areas outside existing CMS Agreements, and reducing the flotsam of discarded and lost nets.

Effective bycatch reduction requires an appropriate management framework to ensure that conservation objectives are identified and appropriate action taken to meet them. It is seldom possible to generalize from one bycatch problem to another. Most responses will need to be fitted to the species and fishery involved. Developing arrangements that are regionally and species specific – a great strength of CMS – can fulfil this need. The problem of bycatch is likely to increase as the world fishing fleet expands and employs faster boats with ever longer, deeper and more efficient gear. The international community can look to the good work of CMS and its Agreements for guidance and WDCS stands ready to assist the Convention in the vital task of removing the blight that bycatch visits on marine life.

Dead Sperm whale thought to have been killed by illegal driftnets in the waters near Mallorca in the Mediterranean Sea.

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The challenging journey onwards

ARNULF MÜLLER-HELMBRECHT, outgoing CMS Executive Secretary, bids farewell and asks: Will CMS mean a better world for our children?

After a gradual start between 1979 and 1990, the sails of CMS caught a fair wind. The Convention found its direction, gained momentum and finally became recognised as the global platform for conservation and stewardship of animals that journey across frontiers. It developed its tools: legally binding Range State Agreements, politically binding Memoranda of Understanding (MoU), small projects to improve the scientific basis to act and to assist implementation in developing countries, and COP resolutions on cross-cutting issues such as wind turbines, oil spills, by-catch and the need for environmental impact assessments.

Along the way, CMS formed partnerships with most of the other global conventions and leading organisations working to conserve nature and biodiversity. It clarified its role and identified potential synergies in relation to each partner. In a short 25 years since the Convention was first adopted in Bonn, CMS today is now poised to make a real difference in such key endeavours as:

- Achieving by 2010 the goal of reversing the prevailing species extinction trend
- Conserving natural life as a basis for human livelihoods and our quality of life
- Assuring sustainable use of shared natural resources and their material benefits
- Alleviating poverty in rural areas by helping local communities capture the economic and cultural values of migratory species.

Yet at the very time CMS has found its rightful place in the orchestra of global instruments for maintaining and properly managing the natural environment, the consumption – or rather destruction – of Nature is accelerating beyond reach of any obvious or standard remedy. A sobering example is the dramatic decline of Saiga antelopes in Central Asia's 'Southern Serengeti', from around one million down to fewer than 30,000 over the past 15 years, mainly on account of poaching activities. That a loss of this magnitude can happen in one of the globe's least populous areas, where wild animals might normally expect to pass unmolested, is an alarm call not only for the responsible Range States but for the entire world.

A CMS MoU has been under development for two years and the time is finally ripe for the concerned Governments to sign it. I am happy that they have shown keen interest and that the next CITES Conference of the Parties will also deal with the problem. It is good, too, that a number of dedicated individuals, expert groups, NGOs, foundations and bilateral government funding agencies are supporting efforts by Range States to rescue the remaining herds of Saiga antelope. But there is still scope to enlarge this circle of support. Accordingly, I call on companies operating in the affected countries, together with their trade associations, to recognise and live up to their social responsibilities by joining forces with others already active in the cause to save the Saiga and use CMS's action-oriented framework to enable this endangered species and its habitat to make a decisive comeback. The same applies to albatrosses and petrels. A special global agreement (ACAP) has been nurtured under CMS, with the Governments of Australia and South Africa taking the lead, backed up by BirdLife International. His Royal Highness the Prince of Wales has expressed his personal support for ACAP. ACAP entered into force on 1 February in this anniversary year.

I could go on to cite hundreds of species of animals that regularly migrate across political borders,

all of which run a grave risk of dwindling away to the point of extinction. Their plight characterises the lack of long-term care and cooperation that afflicts our planet's living resources. The world's wild places are becoming fragmented and denatured as runaway human population growth and ill-thought-out economic development exert ever-greater pressure on wildlife and ecosystems.

The financial means and political influence of public sector institutions are shrinking as a result of economic globalisation and structural adjustment and are simply not enough to tackle the problems in hand. Hence CMS cannot expect State authorities to continue to carry on bearing the full burden of implementing and further refining the Convention and its related instruments. Initial attempts to find allies in the private sector have taught us that fundraising is not the Convention's forte. The Secretariat is too small and lacks the necessary knowledge and experience. And as CMS itself does not implement projects, it is hard to explain to private companies the added value of sponsoring its activities. I see here an important opportunity for project-oriented NGOs, foundations and other private or semi-private organizations or institutions. All can use the catalytic and coordinating dimensions of CMS to advance their own projects, including sponsorship and fundraising campaigns as well as on-the-ground project activities.

I take advantage of this celebratory report to call upon all who represent State authorities, NGOs, public and private foundations, agencies, scientific research institutions and the private sector, to seize the opportunities that CMS and its instruments present. I urge them all to help the world implement existing CMS instruments and to assist in developing and implementing more such instruments.

As my career's journey with CMS draws to a close, I feel optimistic that the next generation will care more wisely for the natural world that is humankind's life-support system, than mine has done. I leave it to younger people now to take care of humankind's future journey and the role CMS will play in it. To quote a famed CMS poster slogan: They're on the move – Give them a hand!

Acronyms

ACAP	Agreement on Conservation of Albatrosses and Petrels
ACCOBAMS	Agreement on Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Areas
AEWA	Agreement on Conservation of Africa-Eurasian Migratory Waterbirds
ASCOBANS	Agreement on Small Cetaceans of the Baltic and North Seas
CBD	Convention on Biodiversity
CITES	Convention on International Trade in Endangered Species of Fauna and Flora
CMS	Convention on Migratory Species of Wild Animals
CMS-IMS	CMS Information Management System
COP	Conference of the Parties
CWSS	Common Wadden Sea Secretariat
EIA	Environmental Impact Assessment
ELC	Environmental Law Centre (IUCN)
EUROBATS	Agreement on the Conservation of Populations of European Bats
EU	European Union
FRG	Federal Republic of Germany
GEF	Global Environment Facility of the World Bank
GRASP	UNEP Great Apes Survival Project
GROMS	Global Register of Migratory Species
GSM	German Society for the Conservation of Marine Mammals
IOSEA	Memorandum of Understanding on Marine Turtles of the Indian Ocean and South East Asia
IUCN	International Union for Conservation of Nature and Natural Resources (World Conservation Union)
IWC	International Whaling Commission
MA	Millennium Ecosystem Assessment
MEA	Multilateral Environmental Agreement
MDGs	Millennium Development Goals of the United Nations
MOP	Meeting of the Parties
MoU	Memorandum of Understanding
NGO	Non-governmental organization
UNFCCC	United Nations Framework Convention on Climate Change
UNCCD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WCMC	World Conservation Monitoring Centre
WDCS	Whale and Dolphin Conservation Society
WI	Wetlands International
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wide Fund for Nature

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http://www.cms.int

ACAP
http://www.ea.gov.au/coasts/species/seabirds/albatross/index.html

AEWA
http://www.unep-aewa.org

ASCOBANS
http://www.ascobans.org

ACCOBAMS
http://www.accobams.mc

EUROBATS
http://www.eurobats.org

Common Wadden Sea Secretariat
http://www.waddensea-secretariat.org

IOSEA
http://www.ioseaturtles.org

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25 YEARS OF JOURNEYS

In many cases migratory animals are essential to the health of ecosystems and to human well-being. Yet human activities around the globe have driven many to the brink of extinction. Since 1979, the Convention on Migratory Species (CMS) has formed a last line of defence against further loss of migratory species and their habitats. It gives Range States across whose territories the scarcest, most endangered of these species travel, a framework that policy- and law-makers can use to agree conservation measures that safeguard them at every point along their journey.

This booklet celebrates the Convention's 25th Anniversary, looking back over the negotiating journey and the journeys of knowledge and cooperation that have brought it to its present stage of evolution. It also looks at the way ahead, at hurdles and hazards still to be tackled, and – above all – at the opportunity CMS has to contribute to the imperative to conserve biodiversity as part of the global struggle to overcome human poverty, defined in the Millennium Development Goals and the 2002 World Summit on Sustainable Development's Plan of Implementation.