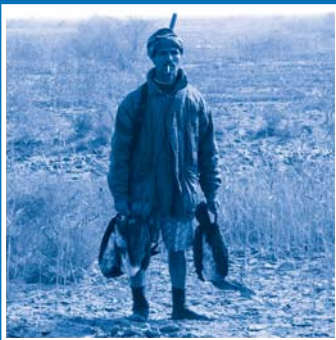


Guidelines

for Moving Towards
Sustainable Hunting
of Migratory Birds in
the Mediterranean
Countries of North
Africa and the Middle
East.



October 2006

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About the Guidelines

These Guidelines, and the associated Code of Practice, have been prepared through a constructive dialogue with key stakeholders in Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, Tunisia and Syria, including: national Government agencies; national hunting groups; national conservation NGOs; key individuals; international hunting councils and international conservation NGOs. The Guidelines development process is further described in section 1.4.2, and key participants in the Guidelines working groups are listed in Annex 1.

The project team gratefully acknowledges the invaluable contribution from all the individuals, groups, agencies and organisations in the working groups. Without their participation and input it would not have been possible to prepare these Guidelines.

This document is a direct output from the “Building Capacity for Sustainable Hunting of Migratory Birds in Mediterranean Third Countries” (LIFE 04 TCY/INT/000054) supported by the European Union’s LIFE Third Countries financial instrument and the AEWA Secretariat. The Guidelines are intended as a regional guide to aid the national regulation of hunting of migratory birds, and are not an overarching statement of best practice for other regions or globally. This document should therefore be taken in both a regional and project context, and should not be taken as a global position statement by any of the individuals or organisations involved.

1. INTRODUCTION

1.1. Hunting of migratory birds in Mediterranean Third Countries (MTCs)

Hunting of migratory birds is an important traditional activity in the Mediterranean region that has been practiced for millennia (with references to the hunting of Quail *Coturnix coturnix* in the Bible's Old Testament and depictions of hunting of waterfowl on Ancient Egyptian monuments, for instance). It also has considerable socio-economic importance, particularly in rural areas, involving hundreds of thousands of people and hectares, and supporting a variety of groups, including subsistence hunters and trappers, weapon and ammunition manufacturers, hunt managers, game keepers, hunting guides, foreign tourist hunters, bird-trap makers, caged bird sellers, taxidermists, hoteliers and restaurant owners.

However, the impact of the hunting in the region is huge - hunters kill millions of migratory birds as they migrate through the Mediterranean region each year. While many of these are killed in southern Europe, a significant proportion are shot or trapped in the countries of North Africa and the Middle East that border the Mediterranean, particularly in Lebanon, Syria, Palestinian Authority and Egypt. Most are of species and populations that breed in Europe and winter in Africa and many of those killed are internationally threatened species or listed on Annex ¹

of the European Union's 'Birds Directive' ². Indeed hunting is believed to be a major factor contributing to the decline of many bird species breeding in Europe, particularly those under pressure from other threats ³. Because of the geography of the Mediterranean region, larger species that use thermals, such as buzzards, eagles and storks, concentrate at 'bottleneck' sites along their migration route where sea crossings are shortest. This makes them easy prey for hunters and intense hunting at these sites can have a significant impact on the populations that breed further north in Europe. Waterbirds, such as ducks, geese, and waders, depend on wetland areas along their migration routes, which are usually small and geographically defined making them similarly prone to high hunting pressure.

Hunting practices in MTC countries include shooting, trapping using nets, snares, lime sticks, traps and decoys, use of poisons and other methods to catch and kill birds. 'Sport hunting', using guns, has become particularly widespread in recent years. New hunting methods and equipment, increased availability of guns and cheap ammunition, easier access to remote areas using ⁴ wheel drive vehicles, combined with higher disposable incomes, increased leisure time and diminishing populations of native game species, have meant that the number of migratory birds being killed has increased to an almost industrial scale in some countries. The killing is often indiscriminate with at-risk species taken as well as more common and permitted species, due in part to a lack of knowledge and/or irresponsible behaviour among some hunters. Many trappers kill all the birds they catch but discard the less edible species, and those trapping for the falconry trade frequently catch (and damage or kill) species that have no value to the falconers ⁵.

1- The "Mediterranean Third Countries" (MTC) grouping is defined by the EC LIFE Third Countries financial instrument, and includes here: Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, Tunisia and Syria.

2- Council Directive 79/409/EEC on the conservation of wild birds

3- Some bird groups, such as raptors, waterbirds and songbirds, are particular targets and the proportion killed is believed to be significantly higher than for other groups. Overall, hunting and persecution are considered the second commonest threat to Species of European Conservation Concern with declining populations in Europe (Tucker and Heath, 1994. Birds in Europe their Conservation Status. BirdLife Conservation Series No.3).

4- Major 'bottlenecks' occur at Cape Bon in northern Tunisia (on the Central Mediterranean Flyway that includes Malta, Sicily and mainland Italy, for birds breeding in Central Europe) and Lebanon's narrow coastal strip (on the Eastern Mediterranean Flyway, which includes Egypt, Palestine, Israel, Jordan, Syria and Turkey for birds breeding largely over eastern Europe and Western Russia).

5- Falcons and other birds of prey are trapped, particularly in Syria and other eastern Mediterranean countries, to supply falconers in the Middle East and exhibition centres and shows (especially the larger species). There has been a sharp rise in demand and prices of these birds in recent years leading to additional pressure on already declining populations. Smuggling of raptors has been widely reported in the MTC region, with young birds 'laundered' under the cover of captive breeding.

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In addition to direct killing and crippling of birds, and disturbance from shooters at hunting sites, the poisoning of birds and pollution of their habitats from lead shot, particularly at wetlands, is also a potentially serious environmental threat in some countries ⁶.

Hunting of migratory birds, if managed sustainably within the local ecological and socio-economic context and adapted to conservation priorities, can be an important tool for rural development. This is reflected in a number of recent international environment and development agreements and initiatives. For instance, the Plan of Implementation of the World Summit on Sustainable Development (WSSD-POI) recognizes that sustainable use is an effective tool to combat poverty and to achieve sustainable development, particularly in rural areas, and sustainable use of natural resources is one of the three objectives of the Convention on Biological Diversity (CBD)⁷. Hunting can also be an important source of finance for conservation programmes, including for enforcement of legislation, monitoring of wildlife populations, research, damage compensation, and education and awareness raising projects for local communities. Furthermore, the social, cultural, recreational, environmental and economic benefits derived from hunting can provide powerful incentives for people to conserve them ⁸. Consequently, responsible hunters – those with an interest in sustaining and promoting wildlife habitats and sites of importance for their quarry — can be an important lobby for conservation and part of the ‘hunting solution’ rather than the ‘hunting problem’. Indeed, some of the most important wildlife sites in Europe have survived the pressures of development and destruction due to the interests of bird hunters ⁹.

1.2. The need for the Guidelines and Code of Practice

Unfortunately, the hunting of migratory birds in the MTC region is not sustainable. Much of it is illegal under existing national legislation, with the use of illegal trapping devices and poisons, shooting out of season and in prohibited areas, and the killing of protected species, being widespread. The management of bird hunting in the region has been characterised by generally poor legal regulation and law enforcement, lack of resources and capacity among government and non-governmental organisations concerned with hunting and the conservation of migratory birds, poorly developed communication and information sharing systems, poor public and hunter awareness of the impact of hunting, past conflicts between the various stakeholders (e.g. hunters and conservation groups), and lack of regional agreement on action to better protect migratory birds (Sustainable Hunting Project, 2006). In addition, much of the debate on the management of bird hunting has taken place at the national level with relatively little local community input,

6- In Lebanon, for instance, some 20-25 million cartridges are sold annually, equivalent to 640-800 tonnes of lead.

7- Sustainable use of natural resources is addressed under Article 10 of the CBD, which requires Parties to adopt measures relating to the use of biodiversity to avoid or minimise impacts on biological diversity. It is also a key element of the Convention on Migratory Species (CMS) and its associated African-Eurasian Waterbird Agreement (AEWA), the Ramsar Convention, and the Convention on International Trade in Endangered Species (CITES). Also, in Europe, the breeding region for most of the birds migrating through the MTC region, the EU Birds Directive fully recognises the legitimacy of hunting of wild birds as a form of sustainable use.

8- This principle has been formally recognised by the World Conservation Union (IUCN) in the ‘Resolution of the IUCN on sustainable use of wild living resources’ adopted at the World Conservation Congress in October 2000 in Amman, Jordan, and acknowledged by the CBD, CITES, and the CMS.

9- For example, the United Kingdom has the largest areas of heather moorland anywhere in Europe largely due to their value for Red Grouse *Lagopus lagopus* hunting; in Spain, the remaining populations of Spanish Imperial Eagle *Aquila adalberti* mostly survive on large private game estates; and in France, high populations of wild Grey Partridge *Perdix perdix* occur in regions with intensive farming (e.g. Beauce, Picardie) as a result of management efforts, in particular the creation of thousands of hectares of ‘wildlife set aside’ with financial support from hunters.

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alternative economic models to wild bird hunting, such as bird-watching and ecotourism, are not well developed in the MTC region, and virtually nothing has been done to address alternative sources of income for trappers and others who make their living from hunting. Furthermore, despite the media attention given to the enormous numbers of migratory birds killed each year and the illegal, excessive and indiscriminate nature of this harvest, there are no agreed, published advice on 'good hunting practices' for individual hunters in the region to adopt. Consequently, there is a clear need for guidance on sustainable hunting policy, planning, regulation, management, enforcement, regional cooperation, awareness raising and education and stakeholder participation in the MTC region to enable national hunting management agencies, hunting groups, individual hunters and other relevant stakeholders to move towards sustainable hunting of migratory birds.

1.3. BirdLife International's "Sustainable Hunting Project"

The overall goal of the project is to strengthen the management of bird hunting in selected North African and Middle Eastern countries of the Mediterranean region to reduce excessive, indiscriminate and illegal hunting of migratory birds, promote more sustainable hunting practices and enhance the compliance of international and regional agreements on the conservation of migratory birds. The Project is working towards these through a series of regional initiatives and 'model' collaborative projects between government, hunting and conservation groups in Tunisia and Lebanon, which will act as a focus or 'hub' countries for projects that can be replicated in other countries in their region (French-speaking Arabic North Africa and the Arabic Middle East, respectively). Tunisia and Lebanon have been chosen because hunting is a major conservation and socio-economic issue for each country, both possess important 'bottlenecks' that are of crucial conservation importance for migrant birds, and good working relationships exist between the national authorities (the Ministry of Agriculture, Environment and Water Resources in Tunisia (MAERH), and the Ministry of Environment (MoE) in Lebanon), hunting groups, conservation organizations and other stakeholders. The project runs from November 2004 to October 2007.

1.4. Purpose, scope and development of the Guidelines and Code of Practice

1.4.1. Purpose and scope of Guidelines

The Guidelines are intended to serve as a decision-supporting, awareness-raising and educational resource to help: (1) analyse and diagnose strengths and weaknesses in sustainable hunting of migratory birds at national and local level; (2) identify sustainability gaps and measures for action; and (3) monitor and assess the effectiveness of sustainable hunting management. The Guidelines are also offered as a resource for the development or review of sectoral and cross-sectoral policies, regulations, management, plans and programmes that affect or are affected by hunting – and thus represent a tool for mainstreaming sustainable hunting into wider landscape and development sectors (e.g. agriculture, forestry, rural development).

These Guidelines are predominately aimed at government agency decision-makers and technical staff, but are also provided as a resource for use by hunting clubs and groups, hunt managers, owners and tenants of hunting land and individual hunters, as well as conservation groups. The Guidelines are complemented by a Code of Practice for Sustainable Hunting of Migratory Birds, which has been developed to encourage more

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responsible hunting practices and behaviour at the individual level and to supplement national legal and management systems governing the hunting of migratory birds. The Code stresses the four principal obligations that hunters share – to comply with hunting laws and regulations, to abide by the rules governing the ecological balance, to respect other users of the countryside, and to conduct hunting safely.

1.4.2. Development of Guidelines

The development of the Guidelines has drawn on previously published sets of guidance on sustainable use of natural resources and the results of several other recent relevant initiatives from around the world, particularly:

- The Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (Secretariat of the Convention on Biological Diversity 2004) ;
- African – Eurasian Waterbird Agreement (AEWA) Conservation Guidelines, particularly Guidelines on sustainable harvest of migratory waterbirds (no. 5) and Guidelines on regulating trade in migratory waterbirds (no 6) (concluded on 16 June 1995 in the Hague, the Netherlands and entered into force on 1 November 1999);
- Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds – “The Birds Directive” (European Commission 2004) ¹⁰;
- Ramsar Handbook for the Wise Use of Wetlands. (Ramsar Convention Secretariat 2004), and the ‘Guidelines for establishing and strengthening local communities’ and indigenous people’s participation in the management of wetlands’ (Resolution VII.8) (Ramsar 1999);
- Lexer et al (2005). Criteria and Indicators of Sustainable Hunting – The Austrian Assessment Approach. *Wildl. Biol. Pract.* 1(2): 163-183, and the early work Forstner et al. (2003). Criteria and Indicators of Sustainable Hunting. Monographien Band 163. Umweltbundesamt GmbH (Federal Environment Agency Ltd.), Austria.

The Guidelines are set within the context of the national situation and needs of the MTCs, identified in 8 National Hunting Reports and summarised in 5 regional synthesis reviews, developed as part of the BirdLife Sustainable Hunting Project ¹¹ .

An initial set of guidelines was drafted by a Sustainable Hunting Guidelines Steering Group, a 4-person group based within the Sustainable Hunting Project, with input from two technical consultants from May-July 2006. These guidelines were then widely reviewed and revised at the national level by the “Guidelines Working Groups” ¹² in Tunisia and Lebanon from June-July 2006, and at a sub-regional workshop held in Tunisia for North African countries and through “virtual” discussions with Middle Eastern stakeholders in July 2006 ¹³ – before discussion at a full regional workshop held in September 2006. The workshop was attended by representatives from seven national governments, the AEWA Secretariat, BirdLife International, the UK Royal Society for the Protection of Birds (RSPB), the International Council for Game and Wildlife Conservation (CIC), Netherlands Society for the Protection of Birds (Vogelbescherming Nederland - VBN), National Hunting and

10- The Addis Ababa Principles and Guidelines (AAPG) provide a framework to assist stakeholders at all levels - international, regional, national and local levels – including UN agencies, international biodiversity and environmental conventions, governments, development agencies, local and indigenous communities, resource managers, the private sector and NGOs, to use and manage their biodiversity in a sustainable way. The AAPG were adopted by IUCN at the 3rd World Conservation Congress in 2004, by the CBD at its Conference of the Parties (CoP) in Malaysia in 2004; by CITES at its CoP in Bangkok also in 2004, and by the AEWA CoP in Senegal 2005. In addition, in November 2005, the Parties to the CMS instructed their Scientific Council to examine the applicability and usefulness of the AAPG for improving the conservation status of relevant migratory species.

11- “Building capacity for sustainable hunting of migratory birds in Mediterranean Third Countries” funded by the European Union (Project Ref: LIFE 04 TCY/INT/000054).

12- The Guidelines Working Groups included good representation from national hunting organisations, in addition to conservation organisations, to advise on the content and development of the guidelines

13- The planned sub-regional workshop for the Middle East had to be cancelled due to the 2006 Israel-Lebanon conflict, and discussions were held “virtually” through email and telephone dialogue.

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Wildlife Agency (Office National de la Chasse et de la Faune Sauvage - ONCFS) and other hunter and conservation groups. This allowed all relevant stakeholders to group their views on the draft document, contribute their own ideas to its development, and agree on a common set of Guidelines for the MTC region. Annex 1 provides a list of all relevant stakeholders and contributors to the Guidelines.

Given that the Guidelines are based on documents developed under key international biodiversity agreements, adoption of these Guidelines by MTCs will not only help towards achieving sustainable hunting of migratory birds in the region but support national government efforts to meet their obligations and reporting requirements under these agreements. Their widespread adoption would also contribute to the achievement of the Millennium Development Goals, particularly MDG 7 - 'Ensure environmental sustainability' - and Target 9 - 'Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources' - and to meeting targets set in the WSSD POI for sustainable use of natural resources.

1.4.3. Structure and presentation of the Guidelines

The Guidelines for Sustainable Hunting are grouped according to the following categories: policy and planning; legislation and regulation; management and capacity; monitoring and research; enforcement; regional cooperation and collaboration; awareness raising and education; and stakeholder participation. For each category, a brief summary of the current situation in the MTC region is given (based on the regional syntheses), followed by a list of operational guidelines, and then a section detailing specific issues of concern relating to the development and implementation of the operational guidelines within the MTC region (issues identified during the compilation of the national reports and regional syntheses, from discussions with project partners and by participants at the two sub-regional workshops). General principles that underpin the operational guidelines are also presented.

1.5. Definitions of terms

In these Guidelines, the term hunting is used to cover all kinds of active taking of wild bird resources, including any part or product of birds, whatever the catching method used. Hunting activities include collecting, gathering, shooting, wildfowling, trapping and netting, but hunting does not cover unintended taking or killing of birds, e.g. by-catch of waterbirds from fishing, oil disasters, traffic, pollution, etc. Recreational (or sport) shooting is considered to be the commonest form of hunting within the MTC region (certainly for waterbirds and the larger migrant species), although accurate figures are not available (Sustainable Hunting Project, 2006). The definition of sustainable utilisation (hunting in this case) given in the Convention on Biological Diversity (CBD) is - ***“the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations”***¹⁴ .

14- It should be noted that different international agreements use different terms for essentially the same concept - where the CBD talks of 'sustainable use', Ramsar employs the concept of 'wise use' and in CITES there is the notion of trade that is 'not detrimental' to the survival of the species. However, there is considerable overlap between these concepts, and in recent years the conventions have been moving towards shared terminology and approaches

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Sustainability is often considered from two (sometimes treated as three) equally important dimensions: ecological and socio-economic. Ecological sustainability requires that a given harvest does not cause the extinction or a long-term decline of a population. Socio-economic sustainability refers to providing an equal opportunity for all sectors of society to enjoy and use natural resources (equality of access) and that resource use remains economically valuable over the long term ¹⁵. This recognises that although sustainability depends on the biological parameters of the resource being utilised, social, cultural, political and economic factors are also important.

In the context of these Guidelines, ***sustainable hunting is defined as the hunting of migratory birds that neither causes nor contributes to population declines or major changes in the behaviour or distribution of hunted species and which respects the rights of all users of the environment.*** The Guidelines are based on the assumption that it is possible to use migratory birds in a manner in which species diversity, genetic variability and ecological processes remain above the thresholds needed for long-term viability of quarry populations, and that all users have a responsibility to ensure that that use does not exceed these capacities.

The definition of ***migratory bird species*** used in these Guidelines follows that given in the Convention on Migratory Species (CMS or Bonn Convention): ***“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 one or more national jurisdictional boundaries”.***

15- Securing the capability of yielding returns and the profitability of hunting is a major objective of economically sustainable hunting.

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCS

2.1. General Principles

The Guidelines are set within the context of five general principles that should apply to the sustainable hunting of migratory birds.

1. All people should be free to enjoy and use migratory birds subject to laws aimed at securing sustainable migratory bird populations and be able to participate in decision-making processes relating to the sustainable use of migratory bird populations (socio-economic sustainability)

Environmental resources, including migratory birds, have both use and existence values (Millennium Ecosystem Assessment 2005), and all elements of society, including walkers, birdwatchers, nature lovers, scientists, have a legitimate right to enjoy or explore wildlife, as long as they exercise this right responsibly. Thus the principle of sustainable use should cover the provision of access to and enjoyment of wildlife for non-hunters, which should be managed in a sustainable way and include all users in decision-making regarding the use of the resource.

2. A proper balance should be maintained between hunting and conservation priorities but maintenance of viable migratory bird populations should always takes precedence over their use (ecological sustainability)

The sustainable use of natural resources recognises the rights of multiple uses, but these uses must not lead to the extinction or decline of the resource. If hunting pressure is too great on any particular species, it will cause a population decline and there will be fewer opportunities for hunting. It is important that hunting contributes to maintaining populations of migratory birds at a satisfactory level and does not erode species or genetic diversity or the diversity of the habitats they use ¹⁶. At the same time, a consideration needs to be given to other uses/services of the environment, and to ensure that hunting activities do not compromise them. A key challenge is how to integrate hunting with other uses/users/stakeholders to give multiple sustainable use of the environment. That is, how to ensure not only that hunting is undertaken on a sustainable basis (and similarly other uses of migratory birds e.g. ecotourism), but that it does not jeopardise other conservation, environmental or sustainable use objectives.

3. Migratory birds are a common natural heritage usually shared between many countries; consequently each country along their migration route has a shared responsibility for their use, management and protection and conservation efforts need to be set within international agreements (ecological sustainability)

Most of the migrant birds occurring in the MTC region are of species and populations that breed to the north in Europe and over-winter in the MTC region or, in most cases, further to the south in Africa. The birds pass through many countries during their migration, with each country forming a link in a chain along the flyway, which is essentially a single unit. Consequently, actions taken in one country – good or bad – can have knock-on effects beyond its borders, and the protection of these birds is therefore a joint responsibility shared by all countries along a flyway, and the governance and management of hunting of migratory birds needs to be based on an agreed, coordinated and international approach. The absence of such agreements can lead to each state implementing separate

¹⁶- The EU Birds Directive states that the hunting should comply with the principles of 'wise use' and 'ecologically balanced control' of the species.

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

management regimes which, when taken together, may mean that the resource is over-utilized.

4. The costs of measures required to manage sustainable hunting and the conservation of quarry species should be borne by both hunters and the state and reflected in the distribution of benefits from the use of migratory birds (socio-economic sustainability)

The management of hunting and conservation of natural resources incurs costs. If these costs are not adequately covered then management will decline and the amount and value of the natural resources (migratory birds in this case) may also decline. It is necessary to ensure that some of the benefits from hunting flow to the management authorities so that essential activities to sustain migratory bird populations are maintained. Such benefits can be direct, such as hunting fees from hunting reserves paid directly to, and retained by, the reserve management authority, or indirect, such as revenues from yearly hunting licenses that flow through a national treasury to management agencies.

5. National decisions relating to the policy, planning, legislation and regulation, management and enforcement for sustainable hunting should be based on sound scientific information. However, in the absence of sufficient quantitative data (e.g. quantify threat to population/species, set bag limits, etc), the Precautionary Principle should be followed (ecological sustainability)

Sustainable hunting management should be based on sound scientific information provided by targeted, carefully designed research, monitoring and assessment programmes (evidence-based conservation). However, there may be inadequate resources to fund these activities and quantitative data may be poor or missing. Yet, decisions that could potentially impact bird populations still need to be made, such as whether hunting at a site, or of a species, or at a certain level poses a threat. The Precautionary Principle (Precautionary Approach) recognizes that delaying decisions and action until there is compelling evidence of harm will often mean that it is then too costly or impossible to avert the threat. In other words, the lack of full scientific certainty on a threat should not be used as an excuse to postpone action to eliminate or reduce the threat. Its use promotes action to avert risks of serious or irreversible harm to the environment and it provides an important policy basis to anticipate, prevent and mitigate threats to the environment. Its application is particularly relevant within the MTC region because of a widespread lack of scientific information on which to base sustainable hunting policy, regulatory, management and control decisions ¹⁷.

2.2. Policy and planning

2.2.1. Situation within MTCs

Most countries lack a clear overall policy framework or planning system for sustainable hunting and no single government authority with overall responsibility for these tasks (the roles and responsibilities of key ministries are often unclear and in some cases overlap), and there is a general lack of national coordinating mechanisms for joint sector policy and planning development in relation to sustainable hunting. Several countries are not yet members of key international agreements, such as the Convention on Migratory Species, and only Algeria and Morocco have national hunting plans. (Sustainable Hunting Project, 2006).

17- The Precautionary Principle has been widely incorporated, in various forms, into various international environmental agreements and declarations, including the CBD.

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2.2.2. Operational guidelines for sustainable hunting

1. *Achieve full membership of international agreements covering the conservation of migratory birds and sustainable use of natural resources across the MTC region, incorporate objectives and obligations into national policy and planning, and ensure congruence in policies (and legislation) at all levels of governance.*

2. *Ensure national policies take into account the current and potential values derived from hunting of migratory birds (including economic, intrinsic and other non-monetary values) and forces that can affect these values (e.g. market).*

3. *Identify and revise national policies that promote or lead to unsustainable hunting or mask the true cost of hunting management, including economic mechanisms, e.g. incentives and subsidies. At the same time, develop and implement mechanisms to encourage sustainable hunting, e.g. flexible tax benefits for well-managed hunting land, rather than focusing solely on measures to limit hunting practices.*

4. *Highlight the need for more equitable sharing of the benefits from hunting and hunting tourism (particularly where they take place) within national policies. These should address job opportunities for local people, co-management at hunting reserves, and equitable distribution of returns among local communities and outside investors.*

5. *Ensure national policy (and legislation) gives special consideration to traditional forms of hunting (and customary laws where recognised), where they are shown to be sustainable. Policy (and legislation) should include the views of indigenous and local communities and local stakeholders.*

6. *Mainstream sustainable hunting issues into wider wildlife conservation, environment, rural development, agriculture and forestry sector policy and planning processes at national and local level.*

7. *Develop and adopt a National Bird Hunting Action Plan that sets out the requirements of a national system to manage all forms of bird hunting in a sustainable way, in compliance with national and international legal commitments, and which links with other sector development plans and reform processes.*

8. *Develop and adopt a National Strategy and Action Plan to phase out use of lead shot.*

9. *Develop and promote alternative livelihood and community development policies and schemes for local shooters, trappers and bird traders that provide economic incentives to reduce illegal hunting, e.g. ecotourism, chicken raising, quail farming and handicraft production.*

2.2.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and

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implementation of the above guidelines within the MTC region are given below.

i. Achieving full international membership of key international agreements

Attaining full membership of MTC countries to key international agreements relevant to the conservation of migratory birds and bird hunting in the Mediterranean, including the CBD, CMS, AEWA, Ramsar and CITES and ensuring compliance with the membership obligations will further promote sustainable hunting of migratory birds, and will encourage further coordination and cooperation in the region. As will, the adoption and implementation of the guidelines provided in this document will certainly contribute to the countries compliance with the above mentioned conventions.

ii. Phasing out of lead shot in cartridges and replacement by alternatives

The accumulation of metallic lead from gunshot in aquatic habitats (particularly wetlands) and the resulting mortality of waterbirds from ingested lead shot are incompatible with responsible hunting practice and with the public perception of hunters as thoughtful and caring managers of migratory birds and natural resources. Indeed, there is now a global acceptance that lead shot should be phased out in favour of less toxic alternatives, such as steel, tungsten or bismuth shot. National policy (and legislation) should reflect the risk of environmental contamination from lead shot and the potential for primary and secondary poisoning from ingested lead shot, look to ban lead shot from hunting of waterfowl at wetlands (both public and private) immediately, phase out the use of lead shot altogether in the medium term (3 years) and promote the adoption of alternatives (encouraged through tax incentives and other financial mechanisms).

iii. Addressing needs of local communities

It is particularly important that national policies address the costs and benefits of hunting to local communities who live with and are affected by hunting of migratory birds. Local communities and local stakeholders often shoulder significant costs or forgo benefits of potential use of biological diversity (for instance, through setting aside land for hunting or conservation), in order to ensure or enhance benefits accruing to others (hunters). Local communities frequently derive little direct financial benefit from hunting (hunters purchase equipment, ammunition in major towns, for instance). Consequently, national policy should seek to achieve a more equitable distribution of benefits from the sustainable use of migratory birds.

2.3. Legislation and regulations

Illegal activities, including shooting protected species, use of illegal trapping devices, shooting out of season, on non-hunting days or in prohibited areas, and illegal use of poisons, are contrary to the 'principle of wise use' and are not in accordance with the principle of conservation through sustainable use. Consequently, the development of effective regulations combined with their enforcement need to be one of the main approaches towards achieving sustainable hunting in the MTC region.

18- The need to phase out the use of lead shot, particularly at wetlands, has already been recognised in several international forums such as the Ramsar Convention and the AEWA. However, although signatories to AEWA are required to phase out lead shot in favour of alternatives, lead shot is still used throughout the MTC region. For information on alternatives see AEWA (2004). Non-toxic shot – a path towards sustainable use of a waterbird resource. Technical Series No.3. UNEP/AEWA Secretariat.

19- Secondary lead poisoning can also occur in birds of prey feeding on birds and animals that are carrying ingested or embedded lead shot, and also potentially in humans through eating lead-shot game meat. See AEWA (2002). Newsletter of the African Eurasian Waterbird Agreement. Special edition: Lead Poisoning in Waterbirds through the ingestion of spent lead shot. Special Issue 1.

20- Use of lead shot should be banned within 200m of a wetland (defined as a waterbody over 3m wide), where deposition of spent shot is most likely and where waterfowl frequently feed (shallow water and margins).

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

2.3.1. Situation in MTCs

There is great variation between countries in the degree to which current legislation and regulations provide an adequate framework to guide sustainable hunting of migratory birds. Each country has its own individual situation but across the region, the main regional weaknesses are:

- Unclear, out-of-date legislation with missing elements, especially poor implementing regulations, decrees and bylaws that provide inadequate guidance on sustainable hunting;
- Lack of integration of elements of national legislation relevant to hunting of migratory birds (different laws and regulations overlap and may conflict; different ministries have different responsibilities with poor mechanisms for collaboration and integration);
- Inadequate national legislation to implement objectives and obligations of international conventions (MEAs) relating to hunting and trade in migratory birds (e.g. AEWA, CITES), or national legislation conflicting with objectives of MEAs;
- Low penalties for breaking hunting law which are not an effective deterrent against illegal hunting;
- Inadequate hunting legislation review processes with a poor or non-existent consultation with stakeholders.

2.3.2. Operational guidelines for sustainable hunting

1. Identify overlaps, omissions and contradictions in existing hunting laws and regulations and draft and adopt amendments.

2. Ensure that national legislation and regulations governing the hunting of migratory birds provide an opportunity for all sectors of society to enjoy and use migratory birds (equality of access), including respect for the traditional use of the migratory game bird resource, within the limits imposed by the abundance, distribution, behaviour and migration of the bird populations, and that rights and responsibilities of all stakeholders are clearly defined in legislation and regulations.

3. Ensure that national legal obligations under international agreements are fully incorporated into national legislation and regulations, particularly those aspects of Convention on Migratory Species (CMS) and its African-Eurasian Waterbird Agreement (AEWA), the Convention on International Trade in Endangered Species (CITES) and the Ramsar Convention related to sustainable hunting and trade of migratory birds.

4. Ensure full coverage of hunting restrictions in national regulations. These should include: approved and prohibited hunting methods, list of species that can be legally hunted, bag limits, protected species, hunting and closed seasons, permitted hunting times, areas where hunting is permitted (e.g. hunting reserves), areas where hunting is prohibited, and provision for halting hunting under extreme conditions and temporary hunting moratoria on hunting of species with an unfavourable conservation status (not necessarily as a result of hunting).

21- The definition of the term 'conservation status' used here follows that of the EU Council Directive 92/43/EEC as "the sum of influences acting on the species concerned that may affect the long-term distribution and abundance of its populations." It is considered to be favourable when "population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitat, and the natural range of the species is neither being reduced nor is likely to be reduced in the foreseeable future, and there is, and will continue to be, a sufficiently large habitat to maintain its population on a long-term basis". Where a species is declining, hunting cannot by definition be sustainable unless it forms part of a properly executed management plan that also involves habitat conservation and other measures that will slow and ultimately reverse the decline.

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- 5. Set heavy penalties (fines and/or prison sentences) for infringement of hunting regulations particularly for killing or taking of eggs, chicks or adults or removal of nests of protected species and for taking or destroying the eggs, chicks or removal of nests of any bird species (except those legally defined as pests covered under specific regulation and operated under special licence).*
- 6. Set clear restrictions on which migratory bird species can be legally sold, or transported, kept or offered for sale (alive or dead birds or any recognisable parts or derivatives of such birds) and set annual national quotas for those that can be traded.*
- 7. Ensure that legislation and regulations provide sufficient measures so that any lethal methods are used only in the last resort, where there is no other satisfactory solution, only for small numbers and for strictly specified reasons where the control is likely to have the desired effect.*
- 8. Ensure the manufacture, possession, transport and use of guns, ammunition, traps and other hunting equipment are fully covered by national regulations and licensing system, with heavy penalties (fines and/or prison sentences) for offenders.*
- 9. Ensure that regulations include provisions and standards allowing hunting groups, conservation groups and other stakeholders, to participate in decision-making processes regarding hunting of migratory birds.*

2.3.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Prohibited practices and techniques

The use of all means, arrangements and methods used for the large-scale or non-selective capture or killing of birds should be prohibited, including snares, hooks, nets, traps, poisoned or anaesthetic bait and automatic or semi-automatic weapons (unless fitted with a device making it incapable of firing more than two cartridges in succession, without reloading), or methods capable of causing the local disappearance of a species. The use of air rifles for hunting migratory birds should also be prohibited, as these frequently wound rather than kill, particularly in the case of larger birds. Rifles are also not appropriate for the hunting of most migratory birds. Mist-nets and net-guns can be very efficient trappers of birds and their use (along with the sale) should be prohibited under national legislation except when employed as part of bona fide scientific research into bird and bat biology (e.g. bird ringing studies on population, migration, ecology, reproduction). Such use should be regulated under a strict national licensing system, with permit holders trained in the operation of nets and extraction of birds to international standards (e.g. British Trust for Ornithology bird ringing licensing system).

22- The EU's Bird Protection Directive (European Commission 1979) prohibits the same methods (covered in Annex IV), and AEWA calls for similar regulation of hunting methods in its action plan (2.1.2.b).

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Given the indiscriminate nature of bird trapping²³ (e.g. mist nets, snares and lime sticks), it should not be permitted by national legislation (except in a carefully regulated way for scientific purposes) as it is not consistent with sustainable hunting practices. Likewise, the use of a live bird that is tethered or similarly secured or which has been blinded, maimed or injured, as a decoy to attract and trap and/or kill a wild bird should be prohibited by national legislation. Tape-lures of bird song should also be prohibited. Nonetheless, it is recognised that trapping can, in some cases, be a legitimate technique in the management of wildlife populations which can directly benefit migratory bird conservation e.g. trapping of mammalian predators at sites important for breeding birds.

In some MTC countries, local communities are dependent on bird trapping for a significant part of their income. The national legislation should thus have the provision to grant exceptions to the law, through properly regulated licences, to allow trapping for a specified time until dependent local communities can develop alternative, sustainable income. The rules for such licences should ensure that the unsustainable nature of the trapping is minimised as far as possible, specifying the designs and models of trap allowed (and prohibited)²⁴; the conditions under which these may be used; methods and practices required to avoid capture of non-target species (selectivity); and the elimination of avoidable suffering (regular inspections at least once a day and 'clean killing' of trapped birds)²⁵.

The licences which the trappers should be required to obtain should require successful completion of a mandatory training course in hunting and/or trapping. Trappers should also be required to demonstrate that they have obtained landowner permission for where they wish to trap and/or the relevant authority.

ii. Designation of hunted species

Species that can be legally hunted need to be clearly defined in the national legislation and reviewed on a yearly basis depending on their conservation status, geographical distribution and reproductive rate. It is particularly important to eliminate the risk to species that are protected, for which hunting is not permitted, or for species for which hunting has already closed but which could be confused with species that can still be hunted. Differentiating between similar 'look-alike' species in the field can be very difficult, even for experienced hunters (and ornithologists)²⁶, for instance between the Curlew *Numenius arquata*, which is shot throughout the region, and the globally critically endangered Slender-billed Curlew *N. tenuirostris*, which has been recorded to migrate through and over-winter in several MTCs²⁷. Furthermore, surface duck species are mainly in eclipse plumage in early autumn (males assume plumage similar to females during moult), which makes species identification significantly more difficult.

23- Traps are defined here as mechanical and non-mechanical capturing devices designed for killing and/or restraining prey.

24- Many, if not most, traps in use in MTC are homemade. Where trapping is permitted, homemade traps should be based on designs and specifications approved for a particular species by the hunting management authority. Trap models, not individual traps, should be tested for licensing (as the latter is clearly impossible), and traps should be manufactured in strict accordance with the approved design (preferably based on an internationally accepted design). Where knowledge is lacking on the best design, the Precautionary Principle should be followed until research is undertaken to determine the most humane trapping methods.

25- Different cultures have different views on what constitutes an 'acceptable level' of animal suffering, consequently it is suggested that an internationally accepted set of criteria are followed, e.g. the trapping standards developed under the AIHTS which have been adopted by the World Conservation Union (IUCN).

26- The risk of confusion between different bird species is well recognised and is the subject of a number of specialist identification guides, e.g. The Macmillan Guide to Bird Identification by Alan Harris, Laurel Tucker and Keith Vinicombe (1989), and the companion volume The Macmillan Birder's Guide to European and Middle Eastern Birds by Alan Harris, Hadoram Shirihai and David Christie (1996).

27- Other vulnerable or endangered species where misidentification by hunters could pose a significant threat include Ferruginous Duck *Aythya nyroca*, Marbled Teal *Marmaronetta angustirostris*, and Lesser White-fronted Goose *Anser erythropus*.

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In addition, the problem of confusion is compounded by the fact that different bird species frequently co-exist. For example ducks, waders and thrushes frequently move in mixed-species flocks, a flock of ducks may comprise different species of ducks, similarly, a flock of waders or thrushes may comprise different species of waders or thrushes respectively. In such circumstances 'selective' shooting can become very difficult. In order to reduce the risk of confusion, huntable species using the same habitat types/areas at the same time should be categorised into 'look-alike' groups (based on similarity in appearance and plumage, habitat use, behaviour and calls) and opening and closing of hunting season for these groups set to avoid potentially killing protected species ²⁸ .

iii. Setting of bag limits

The bag limit - the number of birds allowed to be shot by an individual hunter on one day and the overall permissible take for each migratory bird population during the hunting season - should be set according to a number of factors, including a species' national population size, its conservation status and the level of natural mortality, and should be proportional to the population size along the whole flyway. In order to ensure that hunting does not lead to the decline of huntable species, the general approach in wildlife management is to ensure that hunting does not exceed the range between the 'optimum' and 'maximum' sustainable yield of a species . However, this concept is easier to apply to sedentary than to migratory species. In the absence of good information on population dynamics and hunting take of migratory species, high levels of exploitation should generally be avoided (see Section 2.1 General Principle 5).

Relevant population and mortality data either do not exist or are fragmentary for many species in the MTCs, which makes setting bag limits difficult, and again a precautionary approach should be taken ³⁰. For an abundant species with a favourable conservation status, taking up to 1% of the estimated population (and up to 5% of annual mortality due to hunting) may be considered ³¹. Anything above this threshold should require an in-depth scientific analysis by the competent authority to demonstrate that the population will not be adversely affected in the medium- and long-term. In cases where such data are lacking or incomplete, minimum estimates of population size and mortality rates should be used, based on best available data. At the level of the individual hunter, the bag limit should be no more than 10 birds per hunter (recognising that many sportsmen will be satisfied with much less). However, where a conflict arises between setting of bag limits and the conservation of migratory game bird populations, the conservation objective should take precedence (see Section 2.1 General Principle 2). Harvest frameworks for hunting should be integrated with frameworks for sustainable trade, since hunted birds are often traded.

28- Figure (annex) 3 of the Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds – "The Birds Directive" (European Commission 2004) gives a scheme for look-alike species within the European Community States, many of which occur on migration or breed in the MTC region, which could be adapted for the MTCs.

29- Stable wildlife populations have reproduction and death rates that balance each other. This happens because, as natural resources are used up, mortality increases and fecundity reduces. This density dependence maintains population stability. Though annual harvesting can remove a sizeable proportion of a population, this can be offset by a lower natural mortality and/or better reproduction rate. Thus regularly hunted populations stabilise at lower levels than non-hunted ones, but are more productive. The maximum number of birds that can be hunted each year will be achieved when the largest number of birds is breeding at the fastest possible rate - this is the maximum sustainable yield. However, because of the vagaries in ecological systems, harvesting rates are usually set at a somewhat lower rate, which is termed the optimal sustainable yield. Game managers try to enhance productivity by providing better habitat and more food, and at the same time reduce the mortality due to predators and disease. In this way managed game populations are very productive and often have higher breeding stocks than populations that are not managed and not shot.

30- However, estimates of annual mortality do exist for the most huntable species migrating through the MTCs – see Figure (annex) 8 of the European Commission (2004) 'Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds'. Furthermore, it is possible to calculate, on the basis of the available scientific literature for biologically similar species estimates for species for which no data are available at present (see worked example for *Rallus aquaticus* in Figure (annex) 9 of European Commission (2004).

31- Parameters of population dynamics are seldom known to within less than one percentage point and bird hunting amounting to less than 1% can be ignored from a mathematical point of view in model studies.

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iv. Setting of hunting seasons

Hunting seasons should be fixed to guarantee that hunting does not take place during the most vulnerable periods of the annual cycle of the huntable species. For migratory species, hunting should be prohibited during the spring migration period and, if birds remain to breed in the country, during the reproductive period, which covers not only the breeding season when eggs are incubated and chicks are raised but from the time when the breeding areas are first occupied (usually males establishing territories) to full fledging (full flight) of the final brood ³². The determination of hunting seasons therefore requires detailed information on the migration and reproductive periods of all huntable species occurring in a country. This can be complicated because most of the species that migrate through the Mediterranean from their wintering quarters in Africa to breeding areas in Northern and Central Europe usually take several weeks to complete their migration, although individual birds can complete the journey in just a few days ³³. Where there is a range of dates in timing of pre-nuptial migration or reproduction, the precautionary approach should be taken and the earliest date should be chosen. Likewise, where significant between-year variation occurs on a regular basis, data from the earliest periods should be taken, and where different populations migrate through a country, the earliest migrating population should be used to set the end of the hunting period, although extreme, outlining and erratic data need to be excluded. Allowing for staggered hunting dates during prenuptial migration is also likely to present a greater risk to birds than at the end of the period of reproduction due to the probable higher energetic demands of birds at this time. All the above issues should be considered when setting hunting seasons for huntable species in MTCs, and hunting seasons in large countries may need to be determined at a sub-national level.

A full analysis of potential or actual overlaps between current national hunting seasons and agreed pre-breeding migration and reproductive periods for all huntable species should be undertaken as a priority, particularly for those MTCs where different hunting dates are set at the sub-national (department, province, etc) level ³⁴. Staggering of hunting dates should be avoided but if unavoidable, opening and closing dates should be fixed for each group of 'look-alike' species in a way that ensures that overlaps do not occur that put threatened species and species with unfavourable conservation status at risk ³⁵.

32- Some species have several broods a year and some species have young that are still heavily dependent on the adults for a time after leaving the nest before they can fly, e.g. thrushes/Turdidae.

33- Furthermore, not all individuals of a species within the same region end their wintering period and begin their pre-nuptial migration at the same time, and also different subpopulations of the same species passing through a country can have different migration periods in terms of the start, end and length of the migration season. Birds belonging to northern populations, for example, often start their return flight much later than birds breeding more to the south. An extreme case is the so-called 'leapfrog' migration (e.g. in the Redshank *Tringa totanus*) where birds breeding in more northern latitudes travel greater distances and move to more southerly wintering areas than those that nest farther south. In addition, the length of the migration period not only depends on the north-south extension of the country concerned but also on the availability and the use of resting-places. The length of the migration period is also determined by the quantity and the geographical range of the birds involved - a small population can pass in a few days while a numerous species with an extensive breeding range can have a prolonged migratory season encompassing several months. Moreover, the migration period can also be extended if a country is passed over by several populations with different time schedules. Also, the fact that birds leave a wintering area does not necessarily mean that they start their return migration. They can move to other wintering quarters because of changes in the local ecological conditions, exhaustion of food resources, disturbance or changes in climatic conditions. When migratory and sedentary birds of the same species coexist on the same wintering grounds, the situation can be even more complex. Thus, apparent discrepancies may arise among the data for large countries. Major differences between neighbouring regions can reflect ecological differences more than actual differences in migration timing. For example, although the central Morocco and northern Egypt are situated at roughly the same latitude (30°N) this does not necessarily imply similar arrival dates of migrants because different populations might be involved.

34- For more information on overlap analysis see section 2.7 of the 'Guidance document on Hunting under the Birds Directive (European Commission 2004)'. Overlap is likely to be of most concern for those species with long reproductive periods (or late reproduction) and/or early migration periods.

35- A suggested schema for considering the conditions that need to be fulfilled to ensure compatibility of staggered opening and closing dates is given in Figure (annex) 4 of the 'Guidance document on Hunting under the Birds Directive (European Commission 2004)'.

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v. Designation of hunting days and times

Hunting at a site should be restricted to only a few days every month during the hunting season to allow the birds some time to recover from any disturbance caused by hunting, such as reduced feeding time and opportunities for energy intake which can be critical for successful migration. The period of the day in which shooting is allowed each month should also be clearly defined in national legislation (e.g. 6.30am to 6.30pm in September). Shooting at night should be prohibited due to the increased risk of killing 'look-alike' species in poor light, safety concerns, and to allow birds to remain undisturbed for at least part of a day (these restrictions could be achieved through voluntarily agreements with national or local hunting groups as well as through regulation). There should also be legal provision for imposition of temporary hunting bans during severe weather conditions, in the event of emergencies, and for certain species with an unfavourable conservation status. However, an important consideration for hunters is that such moratoria need to be seen to be 'temporary' and not lead more or less automatically to a permanent hunting ban. Details of suspension of hunting should be posted in national press and hunting publications and directly through the national hunting associations.

vi. Regulation of national and international trade in migratory birds

National legislation needs to state clearly which species of migratory birds that can be traded. Due to uncertainty over the level of hunting that is sustainable, this is likely to apply to only a few species (largely waterfowl for which population estimates and mortality data exist and hunting quotas can be set), and will exclude most migrants. Thus the sale, or transport, keeping and offering for sale, of live or dead birds, or any recognisable parts or derivatives, of species that are not listed for trade should be prohibited. Trade in live birds as pet birds, e.g. migrant passerines particularly finches, should be controlled. Similarly, although a traditional practice in some MTCs, the capture and trade of falcons and other raptors for falconry should be prohibited, as this activity is having a negative impact on the populations of several species of wild birds of prey (e.g. Saker Falcon *Falco cherrug*³⁶).

In order to best combat the illegal international trade in some migratory birds, including Saker Falcon, all MTCs are encouraged to become parties to CITES, and to ensure that they are legally equipped to enforce the provisions of CITES. This step should include adopting national legislation that incorporates a number of basic elements, such as: designation of enforcement agencies and officers; introduction of permit systems and quotas for tradable species; setting of meaningful penalties; application of the law to all species listed in the CITES Appendices; and application of high standards of animal welfare³⁷. Ideally, an annual capture quota should be developed to cover species harvested for domestic use or export. Quotas should be allocated and monitored to keep harvests within established limits. To be effective, capture and export regulatory systems should be linked to ensure that permitted hunting levels do not exceed established harvest quotas.

vii. Selection of regulatory process

Regulations should be kept simple and readily enforceable, and reviewed annually.

36- See <http://www.birdlife.org/datazone/species/?action=SpchTMDetails.asp&sid=3619&m=0>

37- High standards of animal welfare should also be a fundamental component of all bird trade. This is a conservation measure, since trade-associated mortality (through poor welfare) is likely to increase the number of birds removed from the wild to meet demand. As a result, this mortality may itself be considered a factor contributing to the decline of wild bird populations.

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Regulations may be established each year in one of two ways: through an annual regulatory consultation process or by selection of a regulatory package from a pre-established set of possible packages. In the case of the latter, a set of three regulatory packages with decreasing harvest rates could be described - liberal, moderate and restrictive. The criteria for annual selection among these three options could be based on a predetermined set of conditions defined from the results of population surveys and mortality data. This method would reduce the time required to conduct the usual annual process, simplify the implementation of multi-jurisdictional harvest strategies, and increase the predictability of regulations. In the alternative approach – annual review of regulations – a broad process of consultation must be carried out to ensure that the regulations are made with the best possible advice, based on an annual status report on migratory game bird populations produced by the relevant management authority well in advance of the hunting season. The final regulations, as approved by the relevant government authority, should be described in a specific publication that is distributed to all involved parties, published separately in national and local newspapers and other media outlets, and each migratory game bird hunting permit holder should receive a summary of the regulations.

2.4. Management and capacity for sustainable bird hunting

Hunting management should seek to minimize the environmental impact of hunting activities and optimize their socio-economic and ecological benefits. Particular attention should be paid to ensuring that hunting management does not adversely impact the populations of other non-hunted species in an unsustainable way through by-catch or extensive disturbance³⁸, cause habitat degradation through 'improvements' solely designed to increase hunting opportunities, or impair the capacity of ecosystems to deliver goods and services that may be needed some distance from the site, e.g. alteration of water levels to create flight ponds for migrating waterfowl affecting water supplies downstream. Sound management practices can result in populations of game and other species on managed land being significantly higher than at site where no management is undertaken.

2.4.1. Situation in MTCs

The effectiveness of current hunting management varies between countries but no MTC has a system that fully meets the requirements for establishing and managing a sustainable hunting programme for migratory birds. Gaps common to many countries across the region include:

- Institutional weaknesses, including no single body or individual able to represent all hunters (e.g. national hunting association), lack of a higher national council to integrate management roles of different ministries;
- Lack of capacity and resources to implement responsibilities, including lack of funding, inadequately qualified staff and lack of training, equipment and resources;
- Lack of permit systems (or not yet implemented in law) or poorly administered with inadequate coordination (e.g. between authorization of guns and hunting licenses) and monitoring;
- Lack of consultation and stakeholder involvement in hunting management at both national and local levels.

38- Waterbirds can suffer significant hunting disturbance because of their congregatory behaviour, affecting many times more birds than the numbers actually killed by hunting

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2.4.2. Operational guidelines for sustainable hunting

1. Develop and implement national management plans for huntable species that have unfavourable conservation status, and provide remedial action (where required) to address losses/declines of migratory bird populations due to hunting.
2. Produce and implement annual hunting plans that promote the conservation of hunted species of migratory birds for all public and private hunting areas (e.g. as a condition of licensing for a hunting concession)
3. Develop and implement a national hunting concession and hunter licensing system, linked with examination of hunter proficiency as a pre-requisite for issuing permits (and training when proficiency is inadequate) including identification of game and protected species.
4. Develop and implement a 'Sustainable Hunter' certification system with all hunters required to adopt a national Code of Practice and to provide statistics on their hunting activities as a condition of the hunting licence.
5. Avoid programmes of release of captive birds for hunting unless it can be demonstrated that there is a net conservation benefit. Whenever such programmes cannot be avoided, then a national plan for management of hunting of captive-bred birds should be developed and implemented to ensure that there are no threats to migratory birds, including genetic dilution of wild populations.
6. Develop and implement a national plan for the management of hunting tourism.
7. Develop effective individual and institutional capacity in key government management agencies for bird hunting management and migratory bird conservation, including capacity to address conflict resolution and negotiation over hunting issues, and to identify and internalise real costs of hunting management.
8. Strengthen and/or create cooperative and collaborative linkages between all levels of governance responsible for hunting policy, legislation and management, and improve coordination between different management mechanisms, in order to avoid inconsistencies and duplication of efforts and improve effective action.
9. Establish adaptive management schemes incorporating systems to generate sustainable revenue to support hunting management of migratory birds (e.g. from hunting licences and fees, sales tax on ammunition, etc).

2.4.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Design and operation of hunter licence and permit system

A licensing system for hunters is the most effective way of managing and monitoring (legal) hunter numbers and activities, and helps to provide revenue for the administration

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of game bird harvest management and species protection. Acquiring a licence should be made dependent on the passing of a hunter proficiency test ³⁹, attending a training course and/or supplying hunting statistics at the end of the season, all of which would help improve the overall quality of hunting activity within individual MTC countries. Hunters who fail to adhere to regulations should have their licence withdrawn and be prevented from obtaining a future hunting licence.

ii. Development and adoption of *Code of Practice for Sustainable Hunting*

A national *Code of Practice for Sustainable Hunting* should be developed and promoted by management authorities and adopted among hunters. A generic model for the MTC region has been developed in parallel with these Guidelines and is available as a separate document. The Code should be integrated into national hunting licensing systems and all hunters should be required to be familiar with (tested as part of the licence examination system) and adhere to the Code. When letting land for hunting, property owners must ensure that the Code forms part of the letting document and that it is fully complied with. Similarly, hunt managers and guides should ensure that the Code is clearly understood and complied with by hunters in their charge.

iii. Limiting hunting disturbance to migrating birds

Hunting disturbance can cause birds to expend significant time and energy moving to other locations to escape hunting to the detriment of time spent feeding, resting and engaging in other behaviours, and may result in altered behavioural patterns ⁴⁰, a failure to utilise habitats with a relatively high human presence, a reduction in the conservation value of particular sites (for both hunted species and others affected incidentally), and even increased population mortality and reduced reproductive success ⁴¹. Disruption of energy intake can be particularly critical for birds immediately prior to and during migration (migration is an energetically costly activity and birds need to build reserves before commencing and often replenish them during migration at stop-over sites), and when food is scarce or unavailable and birds have difficulty in meeting their energy and nutrient requirements. Consequently, hunting management needs to consider the balance between the intensity, frequency and duration of hunting at a site and the availability and proximity of supplementary undisturbed refuge areas offering adequate feeding and roosting areas in order to minimise disturbance during migration periods ⁴². An assessment of disturbance levels can be obtained by counting the number of shots heard from a fixed point over a fixed period of time per day; this can be an efficient way of monitoring the relative degree of disturbance at specific sites.

iv. Establishment and management of hunting reserves and refuges

Areas identified for hunting (hunting reserves and hunting areas within established protected areas, both public and private) require specific management tasks. Hunting activities within these areas must be set within a management plan for the site that seeks

40- Even if the physiological effects from hunting disturbance are small, behavioural responses can be complex and may be underestimated especially where hunting is intense. For example the time lost after landing (usually from increased vigilance) before birds begin feeding may be up to an hour (and up to 2 hours if disturbance repeated), which may affect other behavioural activities (social, preening, resting, mating). Local displacements and reduced stopover times may even have impacts on populations at the flyway level, because of over-winter density-dependence. However, the severity of the impact of disturbance at the level of flyway populations is at present poorly understood.

41- For example, studies of geese, which are capital breeders (dependant on energy reserves laid down before arrival on the breeding grounds), have shown that disturbance can significantly reduce their reproductive success.

42- Measures to limit disturbance may also be desirable during other times of stress, e.g. when the birds are breeding, moulting, during prolonged periods of severe weather or during incidents of pollution (see AEWA Guidelines No.2: Guidelines on identifying and tackling emergency situations for migratory waterbirds).

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to avoid significant disturbance to migratory birds and promotes their conservation and that of other wildlife (in other words, local hunting activities should be predominately determined at the local level). Sufficient (in size and location) 'no hunting' refuge zones and areas should be established in and around sites where hunting occurs, and clearly identified in the site management plans⁴³. Refuges should be: free from all activities that cause disturbance, not just those related to hunting; of sufficient size to be effective (usually calculated according to the sensitivity of the most vulnerable species); sufficiently diverse to include all habitat components required by the full range of migratory birds present; protected by buffer zones where hunting activity is managed to increase the effectiveness of the refuge area; and created where threatened species are difficult to distinguish from quarry species, and may therefore be at risk from accidental hunting mortality. Special focus should be given to establishing management plans for priority Important Bird Areas⁴⁴ (IBAs) where hunting is taking place. Managers also need to give consideration to the degree of fragmentation and connectivity of existing migratory bird habitat and (e.g. use of wildlife corridors to link reserves and refuges). Given the limited information on populations of some of the migrant bird species passing through MTCs, a focus on habitat creation and, where necessary, restoration for migratory birds should also be considered (taking a 'habitat' rather than 'species' approach). However, the management of habitats to 'improve' harvesting opportunities may have undesirable consequences for other huntable and non-huntable species and the ecosystem as a whole, e.g. destruction of wetland vegetation, alteration of water levels, or removal of fish as competitors of waterbirds as part of management of wetlands for migratory waterfowl. Such habitat transformation and loss should be avoided and care should be taken not to damage or degrade existing wildlife habitats, including surrounding and nearby lands. The joint involvement of hunting and conservation groups and habitat specialists would help to obtain maximum benefit from any migratory bird habitat enhancement projects. Generally, hunters should be encouraged to become engaged in habitat conservation and management such as the control of predators, including alien species, and local hunting clubs should be encouraged to play an active role in the formation of linking networks of refuges.

v. Management of hunting tourism

If managed professionally, scientifically and sustainably, hunting tourism can be a force for rural development and make a significant contribution to rural incomes, job creation and the preservation of local traditions. However, bird-hunting tourism (and other forms of hunting tourism) needs to be subject to specific attention by management agencies to avoid excessive hunting of vulnerable species, unsustainable human pressure on conservation and other sensitive areas (e.g. IBAs), and conflicts with local land users. Hunting tourists should be subject to the same national regulations and controls as national hunters and required to pass the national hunter examination (see above), or if it can be developed a common regional examination (see section 2.7 below) and obtain a national hunter license before being allowed to hunt. **Annex 2** presents the Suggested syllabus for a hunting exam for hunters in Europe, proposed by the Council of Europe (Recommendation No. R(85)17 of the Committee of Ministers)⁴⁵ as a model.

43- Research in Denmark has shown that the careful establishment of a network of hunting free zones in protected areas can increase both site use by waterfowl and local hunting opportunities, providing a 'win-win' situation for both hunters and conservationists. The design of such areas needs to ensure that there are sufficient good quality feeding and resting areas, determined according to the ecological, behavioural, nutrient and energy requirements of the different huntable species at a site.

44- Important Bird Areas are critical sites for the conservation of birds and biodiversity. See www.birdlife.org for further information.

45- Proposed by the Council of Europe (Recommendation No. R(85)17 of the Committee of Ministers).

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Licensed hunting tourists are allowed to hunt with the condition that they hunt in company of local licensed hunting tour guide. Hunting tourists should be able to demonstrate advanced identification and hunting skills to ensure they do not kill protected and 'look-alike' species with an unfavourable conservation status. Tourism agencies, commercial hunt organisers and hunting tour guides should also be certified (sign up to the Code of Practice) and should be responsible for ensuring their clients are aware of sustainable hunting practice and all relevant national and international legal and administrative provisions, including those on export of trophies and CITES restrictions. Hunting guides should be sufficiently trained and a registration scheme established with a national hunting organisation to signify that they can provide safe and responsible services to others. Consideration should also be given to establishing formal licensing agreements between hunting organisations and hunting tour guides. In addition, where development of bird hunting tourism is planned for a site, a full environmental impact assessment should be undertaken with implementation of the mitigation recommendations made a condition of the leasing and licensing arrangements, in order to ensure that any hunting tourism is developed sustainably.

vi. Introduction and hunting of captive-bred birds and alien species

The release of farm-reared native birds may reduce the harvest of wild birds, increase hunter satisfaction and boost local hunting economies. However, such birds may be prone to disease and relatively tame, and offer poor sport. Where birds are introduced, they should be free from disease and parasites, originate from local strains, present no genetic risk, and be released into suitable habitat and in numbers that are appropriate to its carrying capacity. Wetland areas are particularly sensitive, and overstocking with reared birds must not be allowed to deter wild stocks or damage the habitat. For huntable species that have been released into the wild from captive-bred stock, hunting seasons must be fixed to take account of non-hunting seasons of similar species (e.g. *Alectoris* spp.). Furthermore, introduced birds should be encouraged to become wild before hunting takes place. Supplementary feeding should also be tightly controlled as it can encourage pests and predators, e.g. rats. It should be noted that game management focused at artificially raising population levels of single species can be detrimental to some other species, particularly if it is linked to illegal persecution of birds of prey or other predators.

The introduction of exotic species outside their native range poses a potentially greater threat as they can cause significant genetic erosion, alterations to the structure of native bird communities and the ecosystem more generally, and may threaten the survival of some bird populations⁴⁶, including widespread species at present subject to hunting. Consequently, introduction of exotics is now regarded as bad practice and should be prohibited in the MTCs. Overall, habitat protection and improvement, rather than introductions, are a better way of increasing migratory bird harvests.

vii. Adaptive management for hunting management

Given the complexity and variability of the bird migration system operating along the African-Eurasia flyway, and particularly the uncertainty over population data and the impact of hunting in MTCs, hunting management needs to take an adaptive approach that allows review and adjustment of hunting (and other uses of migratory birds) schedules and activities as appropriate. Adaptive management systems need to incorporate the means to assess uncertainties, and ensure quick response time to unsustainable

46- One of the best-documented cases is the threat posed by the North American Ruddy Duck *Oxyura jamaicensis* to the endangered native European White-headed Duck *O.leucocephala* through hybridisation, competition and displacement).

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practices, and if necessary suspension of unsustainable practices. Management decisions should be based on iterative, timely and transparent feedback derived from scientific monitoring of hunting activities, environmental and socio-economic conditions, and the status of the populations being hunted. Reviews of migratory bird hunting should be undertaken by independent scientific bodies to ensure that hunting does not have a deleterious impact on the status of migratory species or their habitats, but any restrictions should be science-based and proportionate, and discussions about possible restrictions fully involve hunting interests.

viii. Achieving sustainable financing for hunting management

National hunting management plans should incorporate systems to generate sustainable revenue, with, as far as possible, the benefits going to local communities and stakeholders to support successful implementation of local hunting management programmes and projects. Schemes such as the European Habitat Conservation Stamp Programme should be considered. This is a joint venture between Wetlands International and Ducks Unlimited Inc, which raises funds from hunters for the conservation and restoration of wetlands all along the Western Palearctic Flyway, with the stamps also used to validate gamebird hunting licences. Similar schemes exist in other parts of the world, e.g. North America and New Zealand. The eventual aim should be for all hunting management to be financed from hunting activities (see Section 2.1 General Principle 4).

2.5. Monitoring and research

Information on the size of each population of migratory birds harvested along a flyway, mortality rates, conservation status and baseline data on the scale of bird hunting is vital to determine the sustainability of hunting harvests, properly design protection measures where they are needed to conserve threatened or threatened species, assess the socio-economic importance of bird hunting, and contribute to an assessment of trade in migratory birds. Monitoring of sustainable hunting management programmes is essential to judge success and efficiency of methods and measures and forms an integral part of adaptive management systems. For instance, management plans aimed at the recovery of species need to be underpinned with regular monitoring that is able to detect changes in the conservation status of the species concerned, and enable a quick response with new appropriate management measures as needed.

2.5.1. Situation in MTCs

Monitoring and research for sustainable hunting are generally weak or lacking across the MTC region, which results in a poor scientific basis to legislation, management and enforcement, which consequently may not achieve their purpose. Where research and monitoring do exist, they are usually carried out by different institutions, using different methods, with no agreed national priorities or coordinated programmes and no mechanisms for integrating results between different data-collecting groups. All the MTCs need to improve their data collection and analysis on the following topics in order to establish sustainable hunting systems:

- Population sizes, conservation status and migration routes, habitat use and behaviour of hunted species (especially those globally-threatened species subject to hunting and those involved in trade);
- Scale and status of hunting, including numbers of hunters, types of hunting, species and numbers killed/caught, sales of hunting gear and ammunition, and data on hunting tourism;

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- Impact of hunting on target species (especially those globally-threatened species subject to hunting and those involved in trade);
- Numbers and distribution of over-wintering species (especially waterbirds);
- Social, economic and cultural value of migratory birds and hunting in the MTC region;
- Domestic and international trade in wild birds, legal and illegal.

2.5.2. Operational guidelines for sustainable hunting

1. Establish effective national information-gathering (research and monitoring) programmes on hunting activities and their impact – hunting methods (shooting, trapping, netting, etc), numbers of hunters, licenses, bird species killed, kill/injury rates, changes in populations of key species, infringement of hunting regulations, etc.

2. Establish effective national information-gathering (monitoring) programmes on trade in migratory bird species, including establishment of national databases.

3. Establish national research programmes on the management of migratory bird populations and their habitats and hunting reserves/refuges, with a particular focus on quarry species of unfavourable conservation status, subject to hunting and those involved in trade. Globally-threatened species should not be included on the quarry list.

4. Undertake economic valuation studies of migratory bird hunting and ensure information is available for incorporation into policy and decision-making processes.

5. Establish national research programmes into 'best practice' methods for sustainable hunting of migratory birds.

6. Establish mechanisms to ensure results of monitoring and research into sustainable hunting are available in a form that decision makers, hunters and other stakeholders can apply to inform and guide national policies and decision-making.

2.5.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Monitoring of migratory bird populations and the impact of hunting

There is a need for sound, scientifically-based monitoring mechanisms to ensure that any use is maintained at levels that can be sustained by the wild populations. Existing monitoring programmes should be reviewed to determine their relevance to sustainable hunting management objectives, assess their design and effectiveness, identify gaps and, where there is a need for improvement, agree on common monitoring methodologies ⁴⁷ .

47- A suggested system for waterbirds has been developed by AEWA - see AEWA Conservation Guidelines No.9: Guidelines for a waterbird monitoring protocol.

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ii. Research on sustainable hunting

High quality information on basic features of many migration systems remains extremely limited. Effective hunting management of migratory birds requires an adequate knowledge of their system of staging, moulting, fattening and wintering areas along the migration route, or flyway. There is a need for better understanding of the geographical distribution of flyways, seasonality of movements and biological and ecological requirements of migratory birds across the MTC region to ensure that their use remains within the capacity of the species and ecosystem to sustain that use. There is a particular need for high quality up-to-date information on the population status and trends of those species that are threatened or considered to have an unfavourable conservation status, and the impacts of hunting (and other pressures) on these species, which should form the focus for national research programmes.

To enhance incentives that promote sustainability in the MTC region, research should also be undertaken into new economic opportunities for stakeholders. Securing and/or improving the profitability of sustainable hunting should be an objective of hunting management and research and needs to include market analyses, identification of game marketing strategies and cost/benefit analyses of hunting practices and management.

Relevant biological research should include ringing studies as recoveries of individually ringed birds provide exact locations of migrants in time and space, and represent the best source of information for large-scale analyses of migration patterns. Such migration studies can provide the necessary information both at the level of species and geographical population; they also offer the unique opportunity to describe migratory patterns for different sex and age-classes, which are important parameters for the proper management of wild bird populations. An annual survey of hunters and hunting groups using standardised questionnaires should also be a high priority for each MTC. This would be useful in providing information on both hunting success and hunter effort that could be directly compared between sites, countries, hunting groups, etc. Such questionnaires could form an integral part of a licensing system for hunters, and should, at least, include the date of the hunt, location and, for each species, the number killed/wounded or shot but not collected. Also worth considering (depending on resources) is the establishment of national 'parts surveys' schemes that provide sample wings, tails or other parts of the birds shot or trapped during the hunting season⁴⁸. These parts are identified to species, sex and age, and can provide valuable data on the composition of the migratory bird (particularly waterbird) harvest. Such data can be used to assess the degree of hunting 'pressure' on the different sexes and age-components, information of great value in assessing harvesting impact on particular populations. These data can also complement and extend the information gained from hunter questionnaire surveys.

iii. Monitoring and research on the trade in migrating birds in MTC region

Monitoring and research are particularly important when deciding levels for trade (domestic and international) as there is little point in setting trade quotas if it is not known how many birds there are in the population that is to be harvested⁴⁹. Regular information (monitoring) on the number of migratory birds harvested for trade is necessary to assess changes in the scale and significance of the trade, to determine accurately whether such

48- Ideally, parts should be collected from hunters throughout the hunting season, and may be deposited at, or mailed to, regional collection points. An alternative approach is to rely on a small number of purposely-trained hunters who examine and report on the bags themselves. Training, regular experience and identification materials are needed for operating a parts survey successfully.

49- Indeed, monitoring and research allows the regulation of trade to move from a reactive to a proactive planning process. At present, trade tends to continue until there is some evidence of severe depletion. Instead, trade should be regulated on the basis of recent population performance, with the precautionary principle (c.f. Principle 5) being invoked where there is doubt whether particular levels of harvests can be sustained.

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trade is sustainable or not (a key requirement for the protection of threatened and vulnerable populations), to evaluate the impact of trade and its socio-economic importance, and to provide information for the setting of quotas or other control measures (see section 2.3.3 vi above) ⁵⁰. The reporting on the international trade in migratory birds from most of the MTCs is considered adequate or poor although for most groups of migratory bird there is little international trade and it poses little threat, except for falcons and raptors. However, in many MTCs the capture of migratory birds is believed to serve a significant domestic market, and much more detailed assessments of the impact of harvests for domestic trade on wild bird populations need to be made. Unfortunately, the monitoring of domestic trade in migratory birds is difficult and resource intensive (much more so than the case with international trade) as individual traders may work with many hundreds of contacts in dispersed rural villages that trap, or arrange for the trapping of, wild birds. Consequently, the establishment of effective national monitoring systems across the MTC region will require significant financial and political commitment. However, a portion of the revenues generated from the operation of both international and national trade regulations (e.g. export taxes, permit fees and dealers' authorisation certificates) could be allocated to assessment and monitoring studies, including work at the local level.

2.6. Enforcement

Comprehensive, well-considered and targeted legislation and regulations to promote and guide sustainable hunting are of no use without adequate enforcement - good enforcement is the key to the effective regulation of sustainable hunting and trade in migratory birds in the MTC region. Unfortunately, enforcement is generally labour and time intensive and frequently requires significant resources. In addition, wildlife crime, such as illegal hunting of protected species, is usually considered of much less importance than other types of crimes, which is reflected in lower rates of successful prosecution and low or token fines and penalties for offenders.

2.6.1 Situation in MTCs

Enforcement of existing regulations relating to the hunting of migratory birds is poor across the MTC region due to a lack of political will, inadequate administrative structures, poor training and institutional capacity, under funding, and in some cases corruption. The situation is hindered by overlapping responsibilities between enforcement agencies, with a lack of integration on law enforcement activities, and poor mechanisms for communication between relevant agencies.

2.6.2. Operational guidelines for sustainable hunting

1. Ensure capacity of enforcement agencies (staffing, knowledge, field resources, finance) is sufficient to enforce national regulations for sustainable hunting and prosecute offenders, particularly to tackle illegal killing, trapping and poisoning of birds, harming of protected species and illegal trade.

2. Create strong effective enforcement agency/hunter association/conservation NGO partnerships to help reduce poaching and illegal trade and promote sustainable hunting.

50- AEWA (2004) suggest sustainable trade harvest regimes (for waterbirds) should include at least three major elements: harvest and export quotas based on monitoring of populations and ecological studies; monitoring and reporting of trapping and export activities; and a system of profit-sharing with local communities

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3. *Design and introduce mechanisms to ensure effective cooperation between enforcement agencies (environment and agriculture ministries, police, customs services and armed forces) for joint operations to tackle illegal hunting and trade in migratory birds.*

2.6.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Ensuring sufficient and effective government enforcement capacity

The institutional capacity of the national and local governmental bodies in MTC countries concerned with hunting issues should be further reviewed and assessed with regard to development and implementation of more effective hunting management legislation, compliance with obligations under signed international conventions relevant to hunting and conservation of migratory birds, negotiation and conflict resolution, ability to network (at local, national and regional levels), advocacy work, and scientific research with regard to hunting sites and species. Subject to this review, government enforcement capacity should be developed and maintained for the identified capacity gaps. .

ii. Involvement of hunting groups in law enforcement

Given the very limited resources of most enforcement agencies in the MTCs, registered/recognised national and local hunting organisations should be encouraged to police the hunting activities of their own members and/or on the land over which they control. Hunting groups should be seen as partners in the fight against hunting crime. It is in the interests of hunting groups – from the point of view of ensuring long-term access to their quarry – to reduce poaching. Furthermore, the illegal actions of a small number of hunters bring hunting into serious disrepute. Hunting groups could make a significant contribution to eliminating illegal and unsustainable hunting practices by ensuring widespread adoption and implementation of the Code of Practice by their members. Hunting groups should establish special agreements with law enforcement agencies to deal jointly with the more serious cases of illegal hunting. Self-policing by hunting clubs is relatively inexpensive, can be effective and long lasting, and can provide a greater sense of ownership and engagement in the design and operation of sustainable hunting measures. It would also allow hunting groups to demonstrate the seriousness of their commitment to sustainable hunting ideals.

iii. Deterring illegal hunting and trade at the national level

Significant fines, bans, penalties, seizure of equipment and, for persistent offenders, imprisonment must be imposed to deter serious offences. The use of the law together with a tough stance towards those who contravene it will also help to raise awareness amongst the public, wildlife traders and law enforcers. Regular checks on hunters and hunting activities in progress need to be undertaken to deter bad practice or catch potential offenders. Judges and other key members of the legal profession also need to be made aware (by providing specific training courses) of the seriousness of wildlife crime and that the fines/penalties they set for illegal hunting and trade in migratory birds should reflect this. National capacity (staff, training, equipment, field resources) to control the internal purchase, sales, display and movements of migratory birds (or any parts or derivatives of

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such birds) within the MTCs also needs to be increased, as does exchange of information and co-operation between agencies throughout the whole of the national trade regulation process. This will require increased political support and financial commitment from MTC governments.

iv. Tackling illegal trade at the international level

Many existing enforcement personnel lack the training and resources necessary to identify migratory bird species in international trade in the MTCs, and to verify the legitimacy of accompanying export/import documents, which reduces the effectiveness of enforcement of both national and CITES-related regulations governing international trade in migratory birds. Illustrated manuals in local languages, best-fit identification systems, software tools and workshops should be developed to help increase trade regulation and animal welfare standards. Many of these materials are already available, but international agencies e.g. CITES, could take the lead in developing (and funding) further training and information programmes at the national level. National capacity (staff, training, equipment, field resources) to keep check on imports and exports of migratory birds (or any parts or derivatives of such birds) into and out of the MTC region also needs to be increased, as does exchange of information and co-operation between agencies throughout the whole of the national trade regulation process. Again, this will require increased political support and financial commitment from MTC governments. A protocol for the care, treatment and release of migrant birds confiscated during both national and international enforcement operations should be developed.

2.7. Regional cooperation and collaboration

As pointed out in General Principle 3 (Section 2.1), migratory birds are a shared resource and require a shared multinational approach for their conservation. This includes the need for cross-border and international agreements and cooperation on the management of sustainable hunting and the trade in migratory birds between countries – in other words, a flyway-based approach to hunting management.

It is particularly important that countries along a species' flyway agree on the overall (flyway) level and individual national levels of sustainable harvest (bag limits) and trade, particularly for species at risk. It is also important that countries along a flyway cooperate on controlling the international trade in migratory birds. Migratory birds face common threats from hunting across the MTC region, and there are similar constraints facing the adoption of sustainable hunting practices in these countries, such as a lack of available information on hunting of migratory birds and a lack of capacity among government agencies to carry out effective law enforcement. Operating within an international framework can significantly improve the effectiveness of protection measures at both international and national levels, and provide important opportunities for sharing of resources, experiences, lesson learning, joint training opportunities, networking, and other national capacity building for MTCs.

2.7.1. Situation in MTCs

As noted in section 2.2, several MTCs are not parties to all the main international agreements relevant to the conservation of migratory birds. Institutional mechanisms for cross-border and regional data sharing and exchange are lacking. Regional collaboration,

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development and training are also lacking and are needed to improve levels of national competency, to improve and standardize regional data collection and to share ideas and good practice within the region and with European Mediterranean countries. No MTC has adequate mechanisms to control or monitor its own citizens when they travel abroad (often to neighbouring MTCs) for tourism hunting and there are no regional mechanisms to standardize hunting licences and permits, nor for exchange of information about tourist hunting between countries. As a result, tourism hunting often circumvents national hunting policy, legislation and management systems.

2.7.2. Operational guidelines for sustainable hunting

1. *Strengthen and promote existing links between MTCs and international agreements addressing hunting of migratory birds, particularly CMS, AEWA and CITES.*

2. *Establish functional communication mechanisms for information exchange, lesson learning, cooperation, technical support, joint training and decision-making on sustainable hunting management and 'best practice' among MTCs and European countries.*

3. *Establish regional mechanism between MTCs to address control and management of trans-boundary hunting, particularly hunting tourism; this could also involve liaison with source countries of hunting tourists*

4. *Establish effective regional mechanism between MTCs for joint activities on illegal hunting and trade in migratory birds; where appropriate this could involve cooperation with European countries in the flyway.*

2.7.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Regional and international (flyway) coordination and collaboration on setting bag limits

Countries wishing to authorise the use of migrant bird species should first consult others along the flyway to jointly examine whether the hunting and trade of bird species would result in species being threatened throughout the flyway. National and local hunting plans for migratory bird species should be in line (and integrated) with agreed flyway management plans and quotas for the species in question. Principle amongst these for the MTC region are likely to be the management plans for those species listed on Annex II EU Birds Directive (particularly huntable species with unfavourable conservation status)⁵¹ and the AEWA Action Plan for migratory waterbird species on the African-Eurasian flyway, which requires Parties to cooperate with a view to developing a reliable and harmonized system for the collection of harvest data in order to assess the annual harvest of populations. Hunting management agencies in MTCs should review these plans to determine their relevance for management of the huntable species in their country. National states should have flexibility in implementing the recommended measures from

51- Since 1997 the European Commission has financially supported the preparation of management plans for 15 of the 22 Annex II species which are considered to have an unfavourable conservation status. These framework plans have still to be completed, especially as regards to defining clear management prescriptions and approved by the ORNIS Committee

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as such in other countries. In addition, national regulations designed to meet mutual targets for hunting and conservation among MTCs and local regulations should also be consistent across borders for areas where important concentrations of staging birds straddle borders.

ii. Coordination on recording and reporting of harvests

To achieve compatibility in methods and reporting for both harvest and parts surveys, it is best to adopt minimum, internationally agreed standards for recording to allow international syntheses and comparisons. AEWA has produced a standard protocol for monitoring migratory waterbirds (see AEWA, undated. Conservation Guidelines No.9: Guidelines for a waterbird monitoring protocol). It is also important that management agencies send a summary of the information collected back to the contributors (hunters and hunting groups), if interest and support are to be maintained. At the regional level, there is a need to establish a regional database covering the Eastern Mediterranean and other regional flyways, on which to base decisions on sustainable hunting levels and as a baseline for future monitoring.

iii. Common standard for training of hunters and regional permit

An effort should be made to create a standard regional system for training hunters, which should be based on a common core syllabus backed up by specific training courses resulting, where applicable, in the awarding of a regional hunting permit that is transferable throughout the MTC region. A suggested syllabus is presented in Annex 3. A regional hunting permit would also help to better monitor and control foreign hunting tourism.

iv. Mechanisms for exchange of information, skills and experience and 'lesson learning'

Consideration should be given to the creation of a pan-Mediterranean network, made up of hunters and ornithologists, with the task of monitoring migratory bird populations along the major migration routes (through bird ringing and survey, with data held in a regional database covering the eastern Mediterranean and the other regional flyways), and feeding this information back into decision-making processes to set flyway and national level harvest. At present, there is no regional (MTC or pan-Mediterranean) network for coordination of scientific information on the hunting of all migratory birds, although there are schemes for some groups, e.g. AEWA counts on waterbirds that overlap in the region.

2.8. Awareness raising and education

Conservation of wildlife and sustainable use of natural resources rely upon a well-informed public, and implies proper knowledge and skills. Hunters need to be made aware and educated of the benefits of sustainable hunting and the means to achieve it. Carefully designed, targeted educational programmes can be very effective. For instance, experiences in Denmark have shown that the wounding percentage of Pink-footed Goose *Anser brachyrhynchus* can be reduced by 75 percent through awareness-raising campaigns directed towards hunters.

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2.8.1. Situation in MTCs

There is a general lack of awareness of inappropriate hunting practices and behaviour, migratory bird declines, threatened species, what sustainability means and the need for the international harvest framework, although national regulations should be generally more conservative than the international framework, in some cases prohibiting the taking of some species altogether, e.g. hunting of particular waterbird species could be illegal or have a reduced bag limit where the species is declining nationally, even if it is not listed sustainable hunting practices among hunters, decision-makers, legal establishment and the general public alike in MTCs, although the level of awareness does differ significantly across the region. This lack of awareness weakens national capacity to implement legislation, achieve effective enforcement and undertake management to achieve sustainable hunting.

Many hunters lack even a basic knowledge of bird identification and habits, and few hesitate to kill rarities simply because they are unable to distinguish them from common species, e.g. the near-extinct Slender-billed Curlew *Numenius tenuirostris* mistaken for Common Curlew *N. arquata*.

All across the MTC region, there is a clear need to increase levels of awareness of the value of hunting and of sustainable practices and to instil responsible hunting attitudes and behaviour into hunters.

2.8.2. Operational guidelines for sustainable hunting

1. *Review training, education and information schemes for hunters in different MTCs, with a view to developing awareness-raising and training packages on sustainable hunting practices.*
2. *Undertake a monitoring programme of public opinion polls to determine success of awareness-raising work.*
3. *Disseminate information on hunting seasons, quarry and protected species, and hunting and non-hunting areas, as well as the regulations governing trade in migratory birds, to hunting groups, traders and trade bodies and ensure it is distributed widely in public domain.*
4. *Produce and widely disseminate national guidance on good bird hunting practices (National Guidelines on Sustainable Hunting and hunter's Code of Practice or equivalent), the conservation of migratory birds and the need for sustainable hunting, to hunting groups and law enforcement, judiciary, decision makers at the national and local level.*
5. *Promote alternatives to lead shot ammunition, including providing information to facilitate access to these alternatives.*
6. *Establish national public awareness raising programmes, covering the conservation of migratory birds, sustainable hunting, its management and alternatives to hunting of migratory birds, e.g. birdwatching.*
7. *Establish nationwide school programmes on the conservation of migratory birds and sustainable hunting (sustainable use of natural resources) and incorporate these into national curricula.*

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8. *Regularly review experiences of sustainable hunting management in other countries, identify successful models and adapt and incorporate them into MTC hunting management systems (lesson learning).*

9. *Report lessons learned on sustainable hunting of migratory birds to the clearing house mechanism of the CBD, AEWA, other relevant forums, and improve reporting of trade statistics to CITES.*

2.8.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Promotion of alternatives to lead shot

Management agencies need to provide more guidance on alternatives to lead shot and their suppliers, and encourage cartridge and shot manufacturers to give priority to this issue. However, national hunter's organisations in MTCs should also be encouraged to promote the uptake of effective alternatives to lead shot among their members, hunt managers and land owners on whose land shooting takes place. Indeed many shooting associations in Europe and other parts of the world, e.g. the British Association for Shooting and Conservation (BASC), already promote a policy of the non-use of lead shot around wetlands.

ii. Hunter training and education

All licensed hunters should be able to demonstrate knowledge and training to a minimum level. Hunters should be well informed about the need for correct species identification, good practices, hunting and the law, the need for reporting and to be aware of their obligations and responsibilities towards nature in general and migratory birds in particular, as well as towards other persons and property.

Hunters should be able to recognise both the common and rare species encountered, with special attention given to 'look-alikes' in order to limit the accidental killing of protected or high conservation value migratory bird species. Identification skills should be tested and a minimum level of proficiency achieved.

Training courses can include practical demonstrations, shooting practice, species identification, information on firearm safety, responsible hunting practices, wildlife conservation, hunter ethics and shooting skills. A suggested syllabus for a hunting exam for hunters in Europe, proposed by the Council of Europe (Recommendation No. R(85)17 of the Committee of Ministers) is given in **Annex 2**.

Where possible, encouraging contact between experienced and inexperienced hunters, through a mentoring scheme is a good way of improving standards, and is an area where hunting clubs can make a significant contribution to furthering responsible hunting in the MTC region.

Where possible, training should be local and hunting organisations should be encouraged to run education and awareness programmes for hunters, teachers and the general public in their area (an indication that they are adopting the sustainable hunting), through conferences and local meetings, videos, magazines and newsletters, and providing information on the internet. Not only will this improve decision-making, but it will also ensure a local commitment to migratory bird conservation and an increased sense of ownership of the shared resource.

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

Where good training/education/awareness-raising schemes already exist, they should be extended to other areas, regions and MTCs.

iii. Public education programmes

Public education programmes should seek to be balanced in their portrayal of hunting and incorporate the positive benefits that can be derived from sustainable hunting management, such as the provision of better habitat, better nutrition, less predation, less disease or less poaching, which improve the living conditions of huntable and other species.

There is also a clear need to raise awareness and educate hunters and the general public on the trade in migratory birds. Posters and information leaflets can be displayed or distributed, for example at airports, public meeting places and markets, to advise the general public about trade regulations. CITES materials are already available, but specific local education and awareness raising programmes, targeted where migratory birds are being collected for domestic or international trade are needed.

2.9. Stakeholder participation

Many communities around the world are based on and/or dependent on the utilization of natural resources including migratory birds. Consequently, in order to ensure socio-economic (and political) sustainability, programmes to utilise and manage biological resources need to involve local communities and other stakeholders, giving consideration to groups and individuals that may benefit as well as those that may not. Stakeholder involvement⁵² can also greatly influence the success of sustainable use management programmes. For instance, uncontrolled hunting often leads to over-utilization as hunters try to maximize their personal benefits from the resource while it is available. However, where hunters have a right to hunt or ownership of the hunting area, they are more likely to protect the resource from over-exploitation. This is reinforced when hunters (and other stakeholders) can participate in the decisions about their hunting activities and have the authority to carry out any actions arising from those decisions.

2.9.1. Situation in MTCs

There is poor availability of information on the hunting management process in the public domain in the MTCs, along with poor identification and involvement of stakeholders and other relevant bodies likely to be affected in the decision-making processes relating to migratory bird hunting.

A particular challenge is to secure the involvement of subsistence and market hunters into the broader management framework for harvests.

In several of the MTCs, there has been conflict between various stakeholders in the past, particularly between hunting and bird conservation groups, which has led to a hardening and polarisation of views, and deep mistrust of the other party's motives in some cases⁵³.

52- Stakeholder involvement is essentially brought about through consultation (soliciting people's views on proposed actions and engaging them in a two-way dialogue) and participation (allowing local people to share, negotiate and partly control the decision-making process).

53- However, it should be pointed out that despite conflicts between hunters and conservationists over the killing of migratory birds in the Mediterranean in the past, both groups share a common interest – preserving wild birds and their habitats.

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Unfortunately, there is still the potential for conflicts between competing activities – for example, some of the best birdwatching sites are also places favoured by tourism hunters but birdwatchers do not want to visit sites where hunters may be active and the birds are disturbed. Whilst some conservation groups have good relationships with hunting bodies, e.g. between AAO and FNACACS in Tunisia, in other countries, such as Lebanon these need to be improved, which would be helped by increased experience of conflict resolution and consensus-building techniques.

2.9.2. Operational guidelines for sustainable hunting

- 1. Ensure process of hunting regulation review and amendment follows international best practice for public and private sector participation, including identification of all relevant stakeholders, and ensures their participation (e.g. hunting groups and associations, hunting equipment manufacturers, conservation groups, land owner representatives).*
- 2. Ensure hunting management takes account of local socio-economic, political, biological, ecological, scientific, institutional, recreational, religious and cultural issues and views of non-hunting groups that could influence the sustainability of its actions.*
- 3. Identify and develop frameworks for encouraging, assessing and integrating public and stakeholder input into sustainable hunting management.*
- 4. Develop and implement mechanisms to ensure more equitable sharing of benefits from sustainable hunting (both financial and non-monetary) at a local level.*
- 5. Ensure adequate mechanisms and channels for communication and negotiation of sustainable hunting issues exist at both national and local levels so that potential conflicts arising from the participatory approach can be quickly and satisfactorily resolved.*
- 6. Establish training and extension services to enhance the capacity of national and local stakeholders to enter into effective decision-making processes governing hunting regulation and management.*
- 7. Ensure full regional membership of the 1998 Convention on Access to Information, Public Participation Decision-Making, and Access to Justice in Environmental Matters (Aarhus Convention).*

2.9.3. Guidelines development and implementation issues within MTC region

Recommendations on issues of particular concern related to the development and implementation of the above guidelines within the MTC region are given below.

i. Stakeholder participation in hunting regulation and management

Changes to national hunting regulations and management policy and practice should be developed through public consultation/participation and a process of co-management with other interested groups and individuals, and in this regard the creation of a National Migratory Birds Hunting Committee, with wide stakeholder representation, may be helpful. management planning is particularly important, as it provides a tool for

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

co-operation between stakeholders and is a process through which ecological, social and economic issues can be worked out and resolved. Consequently, site management plans for sustainable hunting should be developed with full participation of local (municipality) level government, as well as technical specialists, hunter groups and landowners, to ensure a proper role of local populations in management of the local resource and to ensure ecological and socio-economic sustainability⁵⁴. Key stakeholder (government, hunting bodies, civil groups, experts, etc) responsibilities should be clearly documented in each site management plan.

ii. Building trust between stakeholders and access to information

A lack of participation and communication over bird hunting can, quite unnecessarily, lead to mistrust and hostility. Different sectors need to talk to each other and not at each other. This 'real communication' takes time, requires honesty and transparency and is best achieved by working through well-respected local leaders. This should be strongly encouraged in all situations. In areas where there is suspicion of motives (e.g. hunters vs. conservationists, local stakeholders vs. government, hunters vs. government) and trust is poor, a substantial effort needs to be made to raise awareness of the benefits of sustainable hunting and building trust.

The use of on-the-ground demonstration projects can be particularly effective in this regard (rather than theoretical concepts).

Communication structures between stakeholder groups need to be flexible, multi-level, wide-ranging and employ a variety of media.

In cases where hunting is taking place within a protected area the establishment of a site user-group can help build trust and engagement.

Government agencies also need to be open and transparent about their decision-making processes regarding hunting regulation and management. MTCs should also be encouraged to become parties to the Aarhus Convention,⁵⁵ which would promote transparency and greater public access to information on hunting management.

iii. Promoting an equitable share of benefits from sustainable hunting

Sustainable hunting and trade in migratory birds should seek to ensure that local communities, where hunting or trade is taking place, benefit financially, by providing local job opportunities, offering capacity training that can provide income alternatives, or assistance in diversifying local management capacities. These arrangements should be formalized in agreements between local authorities and hunting groups, hunting tour agents, etc. Profit-sharing with local communities would help instil a sense of ownership and provide an incentive for migratory bird conservation at the local level.

54- A wide variety of methodologies exist to enable proper local consultation and participation in biodiversity management that could be adopted to ensure sustainable hunting decision-making processes are participatory, including Participatory Rural Appraisal (PRA).

55- The Convention on Access to Information, Public Participation Decision-Making, and Access to Justice in Environmental Matters, known as the Aarhus Convention (1998), seeks to promote environmental education to further the understanding of the environment and sustainable development and to encourage widespread public awareness of, and participation in, decisions affecting the environment and sustainable development. The Convention requires each Party to make 'appropriate practical and/or other provisions for the public to participate during the preparation of plans and programmes relating to the environment, within a transparent and fair framework, having provided the necessary information to the public' (Article 7). It also requires parties 'to promote effective public participation at an appropriate stage, and while options are still open, during the preparation by public authorities of executive regulations and other generally applicable legally binding rules that may have a significant effect on the environment' (Article 8).

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

iv. Creating and maintaining stakeholder partnerships

There is a need to build partnerships between stakeholder groups where hunting of migratory birds is concerned, to share information, investigate issues and jointly implement changes ⁵⁶. Working together in partnership would facilitate increased awareness of other stakeholder concerns and priorities, improve communication and information dissemination, and help each partner become more effective in regulating or managing hunting on a sustainable basis. However, maintenance of stakeholder partnerships requires effective methods of communications between partners, which are generally lacking in the MTCs.

2.10. Summary table of Guidelines for sustainable hunting

A summary of the operational guidelines is given in the following table together with suggested targets and indicators to achieve these across the MTC region, as well as the key stakeholder groups that would be responsible for their development and implementation.

2.10.1 Assessment of progress towards achieving sustainable hunting

The list of guidelines can also be used to make a preliminary national assessment of progress towards achieving sustainable hunting in the MTC region using a simple scoring system (A = good or already achieved; B = reasonable or partly achieved; C = inadequate or not yet initiated).

co-operation between stakeholders and is a process through which ecological, social and economic issues can be worked out and resolved. Consequently, site management plans for sustainable hunting should be developed with full participation of local (municipality) level government, as well as technical specialists, hunter groups and landowners, to ensure a proper role of local populations in management of the local resource and to ensure ecological and socio-economic sustainability ⁵⁴. Key stakeholder (government, hunting bodies, civil groups, experts, etc) responsibilities should be clearly documented in each site management plan.

54- A wide variety of methodologies exist to enable proper local consultation and participation in biodiversity management that could be adopted to ensure sustainable hunting decision-making processes are participatory, including Participatory Rural Appraisal (PRA).

56- The BirdLife International / FACE agreement in Europe may provide a useful model.

2. GUIDELINES FOR SUSTAINABLE HUNTING OF MIGRATORY BIRDS IN MTCs

ii. Building trust between stakeholders and access to information

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Government agencies also need to be open and transparent about their decision-making processes regarding hunting regulation and management. MTCs should also be encouraged to become parties to the Aarhus Convention,⁵⁵ which would promote transparency and greater public access to information on hunting management.

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Table 1: Summary of Guidelines for sustainable hunting in MTC

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Policy and planning				
1. Achieve full membership of international agreements covering the conservation of migratory birds and sustainable use of natural resources across the MTC region, incorporate objectives and obligations into national policy and planning, and ensure congruence in policies (and legislation) at all levels of governance.	Membership of CMS, AEWA, CITES, CBD and Bern (where appropriate) within 3 years of adopting Guidelines	X			
2. Ensure national policies take into account the current and potential values derived from hunting of migratory birds (including economic, intrinsic and other non-monetary values) and forces that can affect these values (e.g. market).	National policy for sustainable hunting of migratory birds developed and endorsed through the country national environment strategy	X			
3. Identify and revise national policies that promote or lead to unsustainable hunting or mask the true cost of hunting management, including economic mechanisms, e.g. incentives and subsidies. At same time, develop and implement mechanisms to encourage sustainable hunting, e.g. flexible tax benefits for well-managed hunting land, rather than focusing solely on measures to limit hunting practices	Suite of measures available through government, e.g. waiver or deferral of taxes, funds available for productive practices, lower loan interest rates, certification/accreditation for accessing new markets	X			
4. Highlight the need for more equitable sharing of the benefits from hunting and hunting tourism (particularly where they take place) within national policies. These should address job opportunities for local people, co-management at hunting reserves, and equitable distribution of returns among local communities and outside investors.	National policy for equitable sharing of the benefits from hunting and hunting tourism developed and endorsed through the country national environment strategy		X		
5. Ensure national policy (and legislation) gives special consideration to traditional forms of hunting (and customary laws where recognised), where they are shown to be sustainable. Policy (and legislation) should include the views of indigenous and local communities and local stakeholders.	Position paper on traditional forms of hunting where they are shown to be sustainable. Country national environment	X			

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	strategy and relevant legislations addresses these forms and the views of indigenous and local communities and local stakeholders.				
6. Mainstream sustainable hunting issues into wider wildlife conservation, environment, rural development, agriculture and forestry sector policy and planning processes at national and local level.	Sustainable hunting addressed in the country national environmental strategy, environmental laws and legislations.	X	X	X	
7. Develop and adopt a National Bird Hunting Action Plan that sets out the requirements of a national system to manage all forms of bird hunting in a sustainable way, in compliance with national and international legal commitments, and which links with other sector development plans and reform processes	The Action Plan should be reviewed annually	X	X	X	X
8. Develop and adopt a National Strategy and Action Plan to phase out use of lead shot.	Lead shot cartridges phased out over 5-year period, with ban on their use within 200m of a wetland within 3 years, initially for 12, 16 and 20 bore guns	X			
9. Develop and promote alternative livelihood and community development policies and schemes for local shooters, trappers and bird traders that provide economic incentives to reduce illegal hunting, e.g. ecotourism, chicken raising, quail farming and handicraft production.	Action plan developed in participatory manner. Pilot projects established and operated	X	X	X	

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Legislation and regulations				
1. Identify overlaps, omissions and contradictions in existing hunting laws and regulations and draft and adopt amendments	Regulations reviewed and amended on annual basis X	X			
2. Ensure that national legislation and regulations governing the hunting of migratory birds provide an opportunity for all sectors of society to enjoy and use migratory birds (equality of access), including respect for the traditional use of the migratory game bird resource, within the limits imposed by the abundance, distribution, behaviour and migration of the bird populations, and that rights and responsibilities of all stakeholders are clearly defined in legislation and regulations.	Legislation and regulations reviewed for addressing equality of access and amendments drafted and approved within 3 years of adopting Guidelines	X	X	X	X
3. Ensure that national legal obligations under international agreements are fully incorporated into national legislation and regulations, particularly those aspects of Convention on Migratory Species (CMS) and its African-Eurasian Waterbird Agreement (AEWA), the Convention on International Trade in Endangered Species (CITES) and the Ramsar Convention related to sustainable hunting and trade of migratory birds.	Legislation and regulations reviewed in light of international obligations and amendments drafted and approved within 3 years of adopting Guidelines	X			
4. Ensure full coverage of hunting restrictions in national regulations. These should include: approved and prohibited hunting methods, list of species that can be legally hunted, bag limits, protected species, hunting and closed seasons, permitted hunting times, areas where hunting is permitted (e.g. hunting reserves), areas where hunting is prohibited, and provision for halting hunting under extreme conditions and temporary hunting moratoria on hunting of species with an unfavourable conservation status (not necessarily as a result of hunting).	Bird harvest levels and quotas are set according to information provided by an independent monitoring system, not the economic needs of the management system. There should be no hunting during the spring migration and breeding periods of quarry species and under extreme conditions. There should be no use of large scale or non-selective methods of capture or killing.	X	X		

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
5. Set heavy penalties (fines and/or prison sentences) for infringement of hunting regulations particularly for killing or taking of eggs, chicks or adults or removal of nests of protected species and for taking or destroying the eggs, chicks or removal of nests of any bird species (except those legally defined as pests covered under specific regulation and operated under special licence).	Regulations reviewed and amended (or drafted) within 3 years of adopting Guidelines	X			
6. Set clear restrictions on which migratory bird species can be legally sold, or transported, kept or offered for sale (alive or dead birds or any recognisable parts or derivatives of such birds) and set annual national quotas for those that can be traded	National quotas for selling, transporting, keeping or offering migratory birds for sale produced and reviewed on annual basis	X			
7. Ensure that legislation and regulations provide sufficient measures so that any lethal methods are used only in the last resort, where there is no other satisfactory solution, only for small numbers and for strictly specified reasons where the control is likely to have the desired effect.	Regulations reviewed and amended (or drafted) within 3 years of adopting Guidelines	X			
8. Ensure the manufacture, possession, transport and use of guns, ammunition, traps and other hunting equipment are fully covered by national regulations and licensing system, with heavy penalties (fines and/or prison sentences) for offenders	Regulations reviewed and amended (or drafted) within 3 years of adopting Guidelines	X	X		
9. Develop and promote alternative livelihood and community development policies and schemes for local shooters, trappers and bird traders that provide economic incentives to reduce illegal hunting, e.g. ecotourism, chicken raising, quail farming and handicraft production.	Official forum for full stakeholder participation in regular review of hunting regulations established	X	X	X	X

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Management and capacity for sustainable bird hunting				
1. Develop and implement national management plans for huntable species that have an unfavourable conservation status, and provide remedial action (where required) to address losses/declines of migratory bird populations due to hunting.	Plans should be compatible with and complement those of other countries along the flyway.	X	X	X	X
2. Produce and implement annual hunting plans that promote the conservation of hunted species of migratory birds for all public and private hunting areas (e.g. as a condition of licensing for a hunting concession)	IBA management plans in place and operational for key sites in country	X	X	X	
3. Develop and implement a national hunting concession and hunter licensing system, linked with examination of hunter proficiency as a pre-requisite for issuing permits (and training when proficiency is inadequate) including identification of game and protected species.	Licensing and examination system developed and implemented within 3 years of adopting Guidelines. Foreign hunters (hunting tourists) also required to pass national hunting examination before issued with hunting permit	X	X		
4. Develop and implement a 'Sustainable Hunter' certification system with all hunters required to adopt a national Code of Practice and to provide statistics on their hunting activities as a condition of the hunting licence	'Sustainable Hunter' certification system developed in one year and implemented. Monitoring reports on implementation and assessment of system efficiency prepared annually	X	X		
5. Avoid programmes of release of captive birds for hunting unless it can be demonstrated that there is a net conservation benefit. Whenever such programmes cannot be avoided, then a national plan for management of hunting of captive-bred birds should be developed and implemented to ensure that there are no threats to migratory birds, including genetic dilution of wild populations.	National plan for management of hunting of captive bred birds developed in two years and implemented. Monitoring reports on implementation prepared annually	X	X	X	

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
6. Develop and implement a national plan for the management of hunting tourism.	National plan for the management of hunting tourism developed in two years and implemented. Monitoring reports on implementation prepared annually	X	X		
7. Develop effective individual and institutional capacity in key government management agencies for bird hunting management and migratory bird conservation, including capacity to address conflict resolution and negotiation over hunting issues, and to identify and internalise real costs of hunting management.	Training program developed and implemented in three years	X	X	X	
8. Strengthen and/or create cooperative and collaborative linkages between all levels of governance responsible for hunting policy, legislation and management, and improve coordination between different management mechanisms, in order to avoid inconsistencies and duplication of efforts and improve effective action.		X	X	X	X
9. Establish adaptive management schemes incorporating systems to generate sustainable revenue to support hunting management of migratory birds (e.g. from hunting licences and fees, sales tax on ammunition, etc).		X			

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Monitoring and research				
1. Establish effective national information-gathering (research and monitoring) programmes on hunting activities and their impact – hunting methods (shooting, trapping, netting, etc), numbers of hunters, licenses, bird species killed, kill/injury rates, changes in populations of key species, infringement of hunting regulations, etc.	Annual hunting report published and sent to all hunting groups and publicly available through media (internet, libraries, information centres, etc)	X	X	X	X
2. Establish effective national information-gathering (monitoring) programmes on trade in migratory bird species, including establishment of national databases		X	X		
3. Establish national research programmes on the management of migratory bird populations and their habitats and hunting reserves/refuges, with a particular focus on quarry species of unfavourable conservation status, subject to hunting and those involved in trade. Globally-threatened species should not be included on the quarry list	Research results published in peer-reviewed journals, in annual reports and available for download through internet. All hunting of globally threatened species is prohibited.	X		X	X
4. Undertake economic valuation studies of migratory bird hunting and ensure information is available for incorporation into policy and decision-making processes.	Research results published in peer-reviewed journals, in annual reports and available for download through internet	X			X
5. Establish national research programmes into 'best practice' methods for sustainable hunting of migratory birds.	Research results published in peer-reviewed journals, in annual reports and available for download through internet	X			X
6. Establish mechanisms to ensure results of monitoring and research into sustainable hunting are available in a form that decision makers, hunters and other stakeholders can apply to inform and guide national policies and decision-making.	Cooperative agreements between researchers and hunters to develop the most effective sustainable management systems exist	X	X	X	X

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Enforcement				
1. Ensure capacity of enforcement agencies (staffing, knowledge, field resources, financial) is sufficient to enforce national regulations for sustainable hunting and prosecute offenders, particularly to tackle illegal killing, trapping and poisoning of birds, harming of protected species and illegal trade	Sufficient capacity of enforcement agency staff built within 3 years of adopting Guidelines	X			
2. Create strong effective enforcement agency/hunter association/conservation NGO partnerships to help reduce poaching and illegal trade and promote sustainable hunting.	Formal agreements between groups and documentary evidence of joint actions	X	X		
3. Design and introduce mechanisms to ensure effective cooperation between enforcement agencies (environment and agriculture ministries, police, customs services and armed forces) for joint operations to tackle illegal hunting and trade in migratory birds.	Mechanisms to ensure effective cooperation between enforcement agencies established and put into action within 2 years of adopting Guidelines				
	Regional cooperation and collaboration				
1. Strengthen and promote existing links between MTCs and international agreements addressing hunting of migratory birds, particularly CMS, AEW and CITES.	Annual hunting report published and sent to all hunting groups and publicly available through media (internet, libraries, information centres, etc)	X		X	
2. Establish functional communication mechanisms for information exchange, lesson learning, cooperation, technical support, joint training and decision-making on sustainable hunting management and 'best practice' among MTCs, and European countries.	Pan-Mediterranean (or flyway) working group established and contributing to list of huntable species, development of national bag limits and other hunting management requirements	X	X	X	X
3. Establish regional mechanism between MTCs to address control and management of trans-boundary hunting, particularly hunting tourism; this could also involve liaison with source countries of hunting tourists.	Pan-Mediterranean (or flyway) working group established and contributing to list of huntable species, development of national bag limits and other hunting management requirements	X	X		

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Regional cooperation and collaboration				
4. Establish effective regional mechanism between MTCs for joint activities on illegal hunting and trade in migratory birds; where appropriate this could involve cooperation with European countries in the flyway.	Pan-Mediterranean (or flyway) working group established and contributing to national and regional law enforcement activities	X	X	X	
	Awareness raising	X	X	X	
1. Review training, education and information schemes for hunters in different MTCs with a view to developing awareness raising and training packages on sustainable hunting practices.		X	X	X	
2. Undertake a monitoring programme of public opinion polls to determine success of awareness-raising work.	Monitoring programme implemented and results available.	X	X	X	
3. Disseminate information on hunting seasons, quarry and protected species, and hunting and non-hunting areas, as well the regulations governing trade in migratory birds, to hunting groups, traders and trade bodies and ensure it is distributed widely in public domain.	Annual hunting bylaws published in national media and distributed to all national hunting groups, and posted on internet	X			
4. Produce and widely disseminate national guidance on good bird hunting practices (National Guidelines on Sustainable Hunting and hunter's Code of Practice or equivalent), the conservation of migratory birds and the need for sustainable hunting, to hunting groups and law enforcement, judiciary, decision makers at the national and local level.	Guidelines and CoP published in national media and distributed to all national hunting groups, and available for download through internet	X			
5. Promote alternatives to lead shot ammunition, including providing information to facilitate access to these alternatives		X	X	X	

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Awareness raising				
6. Establish national public awareness raising programmes, covering the conservation of migratory birds, sustainable hunting, its management and alternatives to hunting of migratory birds, e.g. birdwatching.	Publications and media presentations on conservation of migratory birds and sustainable hunting produced and widely disseminated. Opinion polls should be conducted before the start of such works and periodically after to assess the success.	X	X	X	
7. Establish nationwide school programmes on the conservation of migratory birds and sustainable hunting (sustainable use of natural resources) and incorporate these into national curricula.	School programmes on the conservation of migratory birds and sustainable hunting are established nationwide within 2 years of adopting the Guidelines. Themes of the conservation of migratory birds and sustainable hunting are incorporated into national curricula within 3 years of adopting the Guidelines	X		X	
8. Regularly review experiences of sustainable hunting management in other countries, identify successful models and adapt and incorporate them into MTC hunting management systems (lesson learning).		X		X	
9. Report lessons learned on sustainable hunting of migratory birds to the clearing house mechanism of the CBD and to AEWA, other relevant forums, and improve reporting of trade statistics to CITES.	Lessons learned on sustainable hunting of migratory birds are reported to the clearing house mechanism of the CBD, AEWA, other relevant forums, and improve reporting of trade statistics to CITES	X	X	X	X

Guidelines (recommendations) or sustainable hunting	Comments (indicators)	Key responsible stakeholders			
		Gov.	Hunt.	NGOs.	Univ.
	Stakeholder participation				
1. Ensure process of hunting regulation review and amendment follows international best practice for public and private sector participation, including identification of all relevant stakeholders, and ensures their participation (e.g. hunting groups and associations, hunting equipment manufacturers, conservation groups, land owner representatives).		X	X	X	X
2. Ensure hunting management takes account of local socio-economic, political, biological, ecological, scientific, institutional, recreational, religious and cultural issues and views of non-hunting groups that could influence the sustainability of its actions.		X	X	X	
3. Identify and develop frameworks for encouraging, assessing and integrating public and stakeholder input into sustainable hunting management.	Public and stakeholders involvement plan prepared and implemented	X	X	X	X
4. Develop and implement mechanisms to ensure more equitable sharing of benefits from sustainable hunting (both financial and non-monetary) at a local level	Mechanisms to ensure more equitable sharing of benefits from sustainable hunting (both financial and non-monetary) at a local level are developed and implemented.	X	X	X	
5. Ensure adequate mechanisms and channels for communication and negotiation of sustainable hunting issues exist at both national and local levels so that potential conflicts arising from the participatory approach can be quickly and satisfactorily resolved.	Communication plan produced and implemented, learning lessons from processes such as the EU's Sustainable Hunting Initiative including the agreement between BirdLife and FACE.	X	X	X	X
6. Establish training and extension services to enhance the capacity of national and local stakeholders to enter into effective decision-making processes governing hunting regulation and management.	Regional training courses conducted	X			
7. Ensure full regional membership of the 1998 Convention on Access to Information, Public Participation Decision-Making, and Access to Justice in Environmental Matters (Aarhus Convention).	Regional countries membership of Aarhus Convention	X	X		

3. REFERENCES AND USEFUL LINKS

Information sources on sustainable hunting

Aarhus (1998). The Convention on Access to Information, Public Participation Decision-Making, and Access to Justice in Environmental Matters Obtained from <http://www.unece.org/env/pp/documents/cep43e.pdf>

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4. ANNEXES

Annex 1: List and contacts of key stakeholders and participants in the Guidelines working group.

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G : Government - H : Hunters - NGO : Non Governmental Organization

Annex 2: Suggested syllabus for a hunting exam for hunters in Europe, proposed by the Council of Europe (Recommendation No. R(85)17 of the Committee of Ministers)

A. Theoretical test

I. Knowledge of fauna and habits: identification and characteristics of game species and protected species

- Description
- Habitat
- Signs of presence
- Behaviour
- Diet
- Breeding
- Population dynamics
- Population management
- Disease
- Impact of the species on the environment
- Specific arrangements
- Main biotopes and capacity of various environments
- Impact of agriculture and forestry
- Role of predators
- Introduction and reintroduction of species
- Stocking and release of animals

II. Knowledge of national and international provisions and legislation governing hunting and nature conservation

- Elementary knowledge of international law
- Knowledge of national legislation
- Exercise of hunting rights
- Restrictions on hunting
- Hunting permit
- Hunting grounds (use, rental)
- Hunting seasons
- Hunting plans
- Control of game populations
- Organisation and supervision of hunting
- Authorised means methods, firearms and ammunition
- Compensation for damage caused by game and hunters
- Insurance
- Offences, control
- Care of game
- Protected species

III. Management of game and habitats, hunting methods and practice

Elements required for compiling management plans: population density, population structure (age, sex), quantitative increase, state of population

- Population measurement
- Improvement of environmental conditions and capacity
- Knowledge of firearms, ammunition and other authorised hunting equipment
- Safety rules
- Hunting dogs
- Treatment of dead game

IV. Ethics

Hunters' behaviour towards:

- Fauna and its environment
- Live and dead game
- Themselves
- Other users of nature
- Other hunters
- Other people's property

B. Practical test

- Recognition of game species
- Handling guns
- Shooting
- Reflexes
- Actual hunt: behaviour in the field
- Application of safety rules

Remark

A probationary period may be envisaged before final award of the permi

Guidelines

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