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Birdlife International

# Mainstreaming conservation of migratory soaring birds into key productive sectors along the Rift Valley/Red Sea flyway


Brief Description

The Rift Valley/Red Sea flyway is the second most important flyway for migratory soaring birds (raptors, storks, pelicans and some ibis) in the world, with over 1.5 million birds of 39 species, including 6 globally threatened species, using this corridor between their breeding grounds in Europe and West Asia and wintering areas in Africa each year. The aim of this project is to mainstream migratory soaring bird considerations into the productive sectors along the flyway that pose the greatest risk to the safe migration of thse birds-principally hunting, energy, agriculture and waste management-while promoting activities in sectors which could benefit from these birds, such as ecotourism. The project will pilot a new, innovative and cost-effective approach, termed “double-mainstreaming”, that seeks to integrate flyway issues into existing national or donor-funded “vehicles” of reform or change management in the key sectors through the provision of technical services and support

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## LIST OF ACRONYMS

| | |
|---|---|
| AEWA | African-Eurasian Waterbird Agreement |
| BLI | BirdLife International |
| CBD | Convention on Biological Diversity |
| CBO | Community-based Organisation |
| CEO | Chief Executive Officer |
| CITES | Convention on International Trade in Endangered Species |
| CMS | Convention on the Conservation of Migratory Species of Wild Animals |
| DDT | Dichlorodiphenyltrichloroethane |
| EEC | European Economic Community |
| EIA | Environmental Impact Assessment |
| EU | European Union |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| M&E | Monitoring and Evaluation |
| MOU | Memorandum of Understanding |
| MSBs | Migratory Soaring Birds |
| MW | megawatt |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NEAP | National Environmental Action Plan |
| NGO | Non-governmental Organisation |
| PDF-B | Project Development Fund - B |
| PMU | Project Management Unit |
| PPRR | Principal Project Resident Representative |
| SEA | Strategic Environmental Assessment |
| UK | United Kingdom |
| UNDP | United Nations Development Programme |
| UNDP-CO | United Nations Development Programme Country Office |
| US | United States |
| USAID | United States Agency for International Development |
| US$ | United States Dollar |
| WTO | World Tourism Organisation |

## PART 1 : Situation Analysis

***Problem**: Populations of many globally threatened and vulnerable migratory soaring birds are threatened by anthropogenic activities during their seasonal migrations along the Rift Valley/Red Sea flyway.*

***Definition** : Double mainstreaming is the process whereby migratory soaring bird conservation objectives are mainstreamed into the relevant threatening sector through a planned or existing reform process or project (the vehicle) targeting a related issue in the same sector, e.g. adding issues of hunting migratory soaring birds to the UNDP project* Supporting Enforcement of Environmental Legislation in Lebanon.

### 1.1 CONTEXT AND GLOBAL SIGNIFICANCE

1. The Rift Valley/Red Sea flyway is the second most important flyway for migratory soaring birds (MSBs) in the world and the most important route of the Africa-Eurasia flyway system. Over 1.2 million birds of prey and 300,000 storks migrate along this corridor between their breeding grounds in Europe and West Asia and wintering areas in Africa each year. In total, 39 species of soaring birds (raptors, storks, pelicans and some ibis), six of which are globally threatened, regularly use the flyway. While these birds are relatively well conserved in Europe and valued in east and southern Africa as part of the game park experience, they receive practically no conservation attention during their migration. Yet this is where the MSBs are the most physiologically stressed and in some species 50-100% of their global or regional population pass along the route and through flyway "bottlenecks" (strategic points where soaring birds are funnelled, either to make water crossings or to maintain flying height) in the space of just a few weeks. As a result, MSBs are at their most vulnerable during the migration along the Rift Valley/Red Sea flyway. These large, highly visible slow-moving birds are susceptible to localised threats during migration, such as hunting and collision with wind turbines (particularly when they fly low or come in to land), which could have severe impacts on global populations. Most MSBs are predators at the top of their food chain and occur across a wide range of habitats. Removing these birds, by allowing threats to their populations to continue, would upset the balance of prey populations and disrupt the assemblage of species in the critical ecosystems of both Europe-West Asia and Africa. Unfortunately, the characteristics of the MSBs migration (it is difficult to predict where the birds will come down because their migrations are dependent upon weather conditions) make it unfeasible to improve the safety of the flyway simply through the protection of key sites. Consequently, conservation actions need to address the flyway as a whole, at a regional rather than national level and not through the traditional site site-based approach. Therefore, the project aims to mainstream MSB considerations into the productive sectors along the flyway that pose the greatest risk to the safe migration of soaring birds.

2. The phenomenon of bird migration is well known phenomenon and one of the greatest spectacles of the natural world. Many of the methods and routes employed have been well-studied and understood. Migration is an energetically costly activity that places the birds under considerable physiological stress. Many smaller bird species are active flyers and migrate on a "broad front" with birds moving in a wave which spans a continent from east to west. Some of these birds store fat reserves before making their flights then climb to high elevations to make their long migratory "jumps". Other birds, predominantly large broad-winged birds e.g. raptors, storks, cranes, pelicans, conserve energy by soaring on local rising air currents, either those deflected upwards by hills and mountains or hot air thermals formed over land, to provide uplift, circling in such currents to gain height and, where the lift ceases, gliding slowly down until they reach the bottom of another thermal where they repeat the process. In this way, many can fly over 300 km in a single day, almost without a wing-beat. These birds, here termed migratory soaring birds (MSBs) (see Annex 8 for list of species), tend to follow regular routes, termed "flyways", that maximise opportunities for soaring whilst minimising migration distances. Because thermals do not form over large areas of water or tall mountain ranges, MSBs are restricted to traditional routes or "flyways" with large concentrations of birds occurring at migration "bottlenecks", such as narrow sea crossings and mountain passes, and other strategic points where the birds are funnelled or guided by lines of hills, ridges or edges of valleys and other places where they can maintain their flying height. These include the classic world "land-bridges" such as the Panama isthmus in the Americas, Gibraltar and the Bosphorus in Europe and, in the Middle East, the Gulf of Suez and Bab al-Mandeb at the southern end of the Red Sea.

3. Managing and protecting migratory bird populations, is particularly challenging because of the vast range of habitats they occupy during the course of their seasonal cycle, and the need to undertake work in very different ecological and political conditions in the breeding grounds, wintering areas and along the migratory routes. Some birds are more vulnerable than others when on migration. For those making long migratory jumps along a broad front, habitat choice during migration can be wide and threats are generally few and dispersed. However, MSBs are very vulnerable during their migration, not only from the physiological stress imposed by the effort of migration, but from the fact that a large proportion of the global or regional

populations of these large, highly visible, slow-moving birds, become densely congregated as they migrate along narrow flyways, reliant on a small number of crossing points, and following reasonably predictable timetables. As such, they can be disproportionately susceptible to localised threats. From a conservation perspective, the quality of information is particularly good for many of these species when in their northern breeding grounds, and improving for their southern wintering grounds. However, relatively little attention has as yet been given to the protection of birds while in transit on their migratory routes. That conservation work which has been done has concentrated mainly upon the bottleneck sites, and the more broad-based issues have so far received little or no attention.

4. Global significance: The Rift Valley/Red Sea Flyway, which includes 11 countries, is the second most important flyway in the world for soaring birds in terms of numbers of birds involved. Systematic surveys conducted at bottleneck sites since the mid-1960s have revealed that over 1.2 million birds of prey and over 300,000 storks pass along this route each year on their annual migrations between breeding grounds in Eurasia and wintering grounds in Africa, but given many bottleneck sites have been only poorly surveyed, the numbers involved are thought to be much higher. In broad terms, the northern end of the flyway is along the Syria-Turkey border. It includes the Jordan Valley through Syria, Lebanon, Jordan, and Palestine, and then splits into three with two routes crossing the Gulf of Suez and passing down the Nile Valley and the west coast of the Red Sea (Egypt, Sudan, Eritrea, Ethiopia and Djibouti), and the third route along the east coast of the Red Sea (Saudi Arabia, and Yemen) which crosses the southern end of the Red Sea at the Strait of Bab al-Mandeb to rejoin the other two before continuing south to the East African Rift Valley (see map in Annex 4).

5. Thirty-nine species of MSB are recognised as using this flyway, of which six are globally-threatened – Critically Endangered Northern Bald Ibis (*Geronticus eremite*); Endangered Saker Falcon (*Falco cherrug*); Vulnerable Dalmatian Pelican (*Pelecanus crispus*), Greater Spotted and Imperial Eagles (*Aquila clanga* and *A. heliaca*), and Lesser Kestrel (*Falco naumanni*) – and three globally near-threatened – White-tailed Eagle (*Haliaeetus albicilla*) Cinereous Vulture (*Aegypius monachus*) and Pallid Harrier (*Circus macrourus*). Almost 100% of the world population of Levant Sparrowhawk (*Accipiter brevipes*) pass along this flyway twice yearly, along with >90% of the world population of Lesser Spotted Eagle (*Aquila pomarina*), c. 60% of Eurasian Honey Buzzard (*Pernis apivorus*), and c. 50% of each of Short-toed Eagle (*Circaetus gallicus*), Booted Eagle (*Hieraaetus pennatus*), Egyptian Vulture (*Neophron percnopterus*) and White Stork (*Ciconia ciconia*). Details of all species and highest passage counts are given in Annexes 7 and 8. Most species of MSB are highly valued in the European countries in which they breed, e.g. raptors, in particular, have been subject to widespread and expensive conservation and re-introduction programmes which have seen populations recover from their pesticide-induced nadir of the early 1960s. The EU Wild Birds Directive (79/409/EEC) was the first piece of EU environmental legislation, indicating the importance given to bird conservation in Europe. This reflects the high regard in which birds are held across Europe. For example, the UK NGO the Royal Society for the Protection of Birds has more than 1 million members, and considerable funds are used to support bird conservation programs in Europe (combined budget for the BirdLife Partners US$189 million for 2002). Many species are also part of European and African mythology, e.g. White Storks are still believed to bring good luck to the house that they nest on. MSBs are also valued highly by eco-tourists in their wintering grounds in eastern and southern Africa where they provide part of the "African safari experience". The tourism industry of which eco-tourism forms a big part, earns Botswana $240m a year (10% of GDP) and Kenya US$339 million (9.8% of GDP). The continued existence of these economic, cultural, and aesthetic values are dependent upon safeguarding passage along the migratory flyway.

6. Ecological context: With the Rift Valley/Red Sea Flyway extending across 11 countries, the project area covers a wide range of climatic variation and spans a large number of ecosystems. Twenty-three eco-regions[1] are traversed along the flyway, ranging from temperate deciduous and coniferous forests in the north through steppe to various types of hot, dry deserts across most of the central area, and tropical montane forests towards the southern limits. The preponderance of desert and semi-desert habitats is one of the key features of this flyway and goes someway to explain the importance of wetlands amongst the bottleneck sites along it. MSBs also associate with and have a greater impact on important WWF Eco-regions in their northern breeding grounds and southern wintering areas. For instance, Steppe Eagles breed or feed in grassland and mixed steppe regions in Western Asia, including the Middle Asian Mountains Temperate Forests and Steppe (Ecoregion 71), and Central Asian Sandy Deserts (Ecoregion 124), whereas Lesser Spotted Eagles breed in hilly mixed and deciduous forests, including Mediterranean Shrublands and Woodlands (Ecoregion 129). In Africa, these species have different food sources and feeding behaviours but again occur in important ecoregions, including dry Miombo (Ecoregion 99) and East Africa Acacia Savanna (Ecoregion 102) amongst others. For some species there is a closer association with specific ecoregions, e.g. Lesser Kestrel, a specialist insect feeder, is particularly associated with the Karoo in South Africa (Ecoregion 119) during winter. Most of the MSB species, particularly raptors but also storks and pelicans, are predators at

[1] As described by WWF – see http://www.nationalgeographic.com/wildworld/terrestrial.html and http://www.worldwildlife.org/science/ecoregions/biomes.cfm

the top of food chains in these Ecoregions and consequently, conservation of these species along the flyway contributes to efforts in Europe and West Asia and Africa to protect critical ecosystems and maintain their ecological integrity. Moreover, the birds are particularly vulnerable along the flyway and unless the threats these birds face during migration are addressed conservation efforts of their breeding and wintering ecosystems will be undermined (this applies to all 39 species that use the flyway, not only to the 9 threatened species).

7. Most MSBs (especially broad-winged raptors and storks) aim to complete the journey between wintering and breeding grounds as quickly as possible. This is particularly the case when crossing the hot and inhospitable deserts of the Middle East and North Africa. Many do not (or rarely) feed and drink during this passage, and only land to roost at night or during adverse weather conditions. Birds arriving at water-crossing points(e.g. Southern Sinai,Suez and Bab al-Mandab), will, on a few occasions, be forced to congregate until weather conditions and time of day are favourable, it being important that there is sufficient time to make the crossing before night-fall. As a rule, migrating raptors will roost at night wherever they find themselves, although some species of MSB will show a preference for certain habitat types (e.g. storks, cranes at wetlands, pelicans at open water bodies, and some raptors amongst trees). Therefore timing, local weather conditions and people's attitudes (persecution) play a vital part in the vulnerability of MSBs at bottlenecks, and may be more important than habitat type or condition. It is because of these characteristics that a mainstreaming, rather than a site-based approach, is necessary. Although birds do tend to congregate and probably land more often at migratory bottlenecks, protection of isolated sites along the flyway is not an adequate approach for MSB conservation. Instead it is necessary to integrate flyway considerations into activities at a broad level along the flyway. For this reason the project is following the Strategic Priority II (BD2) mainstreaming rather than a site-based approach focused on protected areas.

8. Most of the MSB species, particularly raptors but also storks and pelicans, are predators at the top of food chains and hence play a crucial role in widespread terrestrial and freshwater ecosystems in their northern breeding and southern wintering zones. Many MSBs are also important in agricultural landscapes through their impact on pest populations, e.g. Steppe and Lesser Spotted eagles feeding on sousliks and other rodents. Removing these birds, by allowing threats to their populations to continue, would upset the balance of their immediate prey populations and other animal species further down the food chain resulting in significant adverse impacts on the ecosystems as a whole. In addition, MSBs are an integral part of threatened or high biodiversity habitats in their northern breeding grounds and southern wintering areas (including many WWF Ecoregions). For instance, Steppe Eagles breed or feed in grassland and mixed steppe regions in Eastern Europe and Western Asia, including the Middle Asian Mountains Temperate Forests and Steppe (Ecoregion 71) and Central Asian Sandy Deserts (Ecoregion 124), and in Africa they occur in dry Miombo (Ecoregion 99) and East Africa Acacia Savanna (Ecoregion 102) amongst others habitats. Consequently, conservation of MSB species along the flyway contributes to efforts in Europe, West Asia and Africa to protect critical ecosystems and maintain their ecological integrity (this applies to all 39 species that use the flyway, not only to the 9 threatened species). Furthermore, unless the threats these birds face during migration are addressed, conservation efforts in their breeding and wintering ecosystems will be undermined.

9. Socio-economic context: The total population of the 11 countries along the flyway exceed 271 million people. Economically, these countries are generally poor or very poor with per capita incomes in the Middle East being US$3,400-5,000[2] and in Africa considerably lower at US$800-1,300. However, this somewhat masks the fact that there are major discrepancies in income distribution and the proportion of the population below the poverty line is generally high. Populations are growing fast with all but Lebanon (1.26%) and Egypt (1.78%) over 2% per annum[3], and demographic profiles are heavily weighted towards the younger age classes suggesting that such rates are likely to continue in the medium-term – median age of population in between 16.54 years (Yemen) and 27.34 years (Lebanon). The poorer countries are still largely agrarian-based (percent GDP from agriculture: Ethiopia 47%, Sudan 39%, Syria 25%) while elsewhere the industrial base is well-established (percent GDP from industry: Saudi Arabia 67%, Yemen 45%, Egypt 33%) but these agrarian-based countries also exhibit the fastest rates of industrial growth (Sudan 8.5%, Syria 7%, Ethiopia 6.7%). Levels of unemployment are moderate (10.9% in Egypt) to very high (20% in Syria, 25% in Saudi Arabia; 35% in Yemen, 50% in Djibouti). Health care is also variable – life expectancy is high in the more developed countries (76 (male)/81 (female) years in Jordan; 73/78 Saudi Arabia; 70/75 Lebanon) but remains low in the poorer ones (42/44 Djibouti; 48/50 Ethiopia; 51/53 Eritrea), and infant mortality similarly varies (1.324% in Saudi Arabia, 1.735% in Jordan but 9.532% in Ethiopia and 10.413% in Djibouti). Literacy rates reflect the same dichotomy (96% (male)/86% (female) in Jordan; 93%/82% in Lebanon; 90%/64% in Syria, but only 50%/35% in Ethiopia; 68%/47% in Egypt; and 70%/48% in Eritrea). Further socio-economic data is given in Annex 6.

10. These socio-economic factors – widespread poverty, burgeoning human populations, high unemployment, limited education and healthcare – all place pressures upon governments to prioritise development to raise living standards and

[2] except Saudi Arabia at US$12,000

[3] at 3.45% per annum Yemen has the highest growth rate in the world

improve basic services. Add to this the recent civil and ethnic unrest experienced by some countries, and major security concerns in others, the agenda is focussed on rural development, industrialisation, and economic growth. Conservation, although becoming a more important issue, is not a priority despite well-meaning statements contained in national biodiversity strategies and other policies. Bird migration issues have barely registered on their radar. The associated impacts of increasing levels of development, together with the general lack of conservation efforts in the region, are increasing the mortality of many globally threatened and vulnerable MSBs during their seasonal migration through the region. Four key sectors are seen as impacting MSBs along the Rift Valley/Red Sea flyway – hunting, energy, agriculture, and waste management – while a number of other sectors are considered to be of particular relevance in certain countries, e.g. tourism, urban development, industry and manufacturing, transport, fisheries, petroleum and gas, communications, and military activities. The GEF will finance the incremental costs of lifting barriers to mainstreaming MSB conservation objectives into four production sectors – hunting, energy, agriculture, and waste management.

11. The human and economic costs, actual and potential, associated with the flyway are also considerable. The concentration of an extremely large number of birds in limited airspace creates a severe hazard for aircraft through bird strikes, particularly with medium and large size MSBs. In the Middle East, between 1972 and 1983, hundreds of accidents occurred and 74% occurred during migration months with losses in the tens of millions of dollars annually as well as substantial loss of human life. While the number of accidents has been cut by 81% and the costs by 88% through careful flight planning and raised awareness of the problem, costs associated with bird strikes in the region still exceed US$ 5 million per year. With the countries in the region developing quickly and passenger, cargo and military flights increasing, the potential for bird strikes remains huge. To date, globally, over 400 people have been killed and 420 aircraft destroyed through bird strikes while during the decade 1990-99, The US Federal Aviation Administration estimates that US civilian aircraft sustained US$ 4 billion worth of damage and associated losses and 4.7 million hours of aircraft downtime due to bird strikes. Approximately 97% of these involved common, large-bodied birds or large flocks of small birds, and 70% involved gulls, waterfowl, and raptors (hawks and vultures).

### 1.2 SECTORAL FRAMEWORK

12. MSB migration, while following relatively clear "flyways" and traversing critical "bottlenecks" – especially water crossings, is still unpredictable and MSBs are most at risk from anthropogenic activities when flying low, roosting, feeding or drinking. However, it is not possible to easily predict these patterns, in part because MSB behaviour depends largely on local weather conditions. For instance, birds may come down to drink at wetland areas in the middle of a desert or in agricultural lands, and there are even records of birds being forced down by a storm in the middle of urban areas. Consequently, it is difficult to accurately identify specific landscapes that represent major threats to MSBs. Rather than take a landscape approach, the project will focus on productive sectors that represent the greatest risk to MSBs all along the flyway. The PDF-B has identified these sectors within which lie the greatest threats to MSBs, from intentional persecution, including hunting and "protection" of livestock, to unintentional activities, such as collisions with energy sector structures, poisoning from agricultural pesticides, and ingestion of waste materials and waste water. By mainstreaming MSB considerations into the sector frameworks in each country and thus changing the way people behave, MSBs will be safer regardless of where they are on the flyway.

13. A review of the conservation legislation enacted in the 11 countries along the Rift Valley/Red Sea flyway reveals that while there are large variations between countries in the levels and nature of protection offered by the legislation, no country has legislation that relates specifically to MSBs in the productive sectors. In several countries, overall policies and strategies for biodiversity and wildlife conservation are well-designed and could be strong mechanisms for directing MSB conservation efforts. However, the translation of such policy statements into effective national legislation has in many cases not happened or, where the legislation exists, the institutional capacity and resources to implement it may be lacking. These are common problems across the entire region.

14. A detailed profile of each sector in each country was not possible within the limitations of the PDF-B phase. Moreover, given the project strategy of working in partnership with other national development projects (see paragraph 34.), it is not considered necessary since such analyses will have been undertaken by the national development projects. However, summaries of the target sectors into which MSB considerations will be mainstreamed by the project are given below:

- Hunting: is of huge importance culturally and traditionally in most countries in the region, with much associated pride and prestige, and it remains prevalent along the Rift Valley/Red Sea flyway particularly in the Levant countries – Lebanon, Jordan, Palestine, Syria and Egypt – but much less so in the African states. Bird hunting tends to be excessive and indiscriminate in many countries with threatened protected species taken as well as common legal prey species. Raptors and storks are particularly vulnerable because being large and relatively slow-flying they make easy targets, and the daily passage of hundreds and even thousands of MSBs at bottleneck sites at predictable times and

places presents hunters with an abundant good sport. Legislation is weak (laws and/or implementing regulations not yet enacted or incomplete; lack of recognition of important biodiversity and threatened species) and enforcement poor across the region. Lebanon, Palestine, and Saudi Arabia are not party to CITES and Syria has not formally declared national species lists, weakening attempts to implement national legislation. In Jordan, almost all hunting is carried out as a hobby of the rich where an estimated 4,000 licensed hunters spend an average of US$ 150 per person per month on hunting (estimated annual total of US$ 7.2 million); in Lebanon, as many as 600,000 people (17% of the population) are involved, with only a third of these having the necessary permit; but in Saudi Arabia, only the "traditional" hunting practices, using falcons and hunting dogs are permitted.

- Energy: The economies of the countries along the flyway are growing fairly quickly with rates of GDP growth between 1.9% (Yemen) and 11.6% (Ethiopia). Much of this growth is through increasing industrialisation and annual industrial production growth rates are between 2.5% (Egypt) and 8.5% (Sudan). Such growth provides an increasing demand for power that is still met largely by fossil fuel power stations although hydroelectric sources, e.g. from the various Nile Valley dams, are also important for some countries. Wind energy is developing and one of the world's largest wind farms has been established at Zafarana along the Gulf of Suez, Egypt. In all cases, power needs to be transmitted, most commonly by overhead cables and these too are increasing, e.g. power generation capacity increased in Eritrea from <30 MW in 1991 to 150 MW in 2004, and the length of transmission lines from 800 km to 1,300 km.

- Agriculture: The poorer countries along the flyway have largely agrarian-based economies, e.g. agriculture contributes 47% of GDP in Ethiopia, 39% in Sudan, and 25% in Syria, and as such is a key sector in providing livelihoods for large proportions of the populations, e.g. 60%-70% of people in Eritrea rely on agriculture for income and employment. Increasing agricultural intensification is occurring across the region in response to rising populations, causing habitat destruction and degradation although this is not seen as a direct threat to MSBs. However, there is a significant increase in the area under irrigation and over-abstraction of freshwater or increased salinity due to salt water infiltrating aquifers in coastal areas have caused a decline in the availability of freshwater. In some countries in the region, e.g. Jordan and Lebanon, agriculture is responsible for 60 to 70% of the total national water demand. In most countries there is no requirement for EIA for land reclamation or irrigation, no SEA and no awareness of the likely ecological impacts of such schemes. With increasing intensification has come increasing use of agro-chemicals, particularly pesticides. These are now used widely across the region to control pests such as desert locust, army worm, Red-billed Quelea,, and rodents. Persistent organochlorine and mercury-based pesticides which are banned or restricted by the World Health Organisation and which are no longer in use in most developed countries, continue to be manufactured and are still in widespread use in the region (e.g. DDT, Lindane, Paraquat in Palestine and other countries) along with other toxic alternatives such as organophosphates, carbamates and pyrethroid compounds. While some countries have banned the most toxic pesticides, such bans are often ignored or the regulation and enforcement mechanisms for their control are lacking. The problems are exacerbated by misuse and overuse due to lack of awareness and information as well as widespread illiteracy.

- Waste management: is becoming an increasing problem along the flyway as human populations rise and industrialisation increases. Waste management is generally poor with solid waste thrown into open pits, burned, or dumped into rivers and lakes, and waste water and effluents usually discharged directly into rivers without prior treatment. Municipal rubbish tips are usually poorly managed with large amounts of exposed waste, and toxic materials are often present. Where waste sites are designed and managed properly, especially open waste-water treatment plants, e.g. at Aquaba in Jordan, they can provide important and safe habitat for birds. Although efforts have been made to address the waste disposal issue in some countries, it is often only the aesthetic aspect of the problem that is addressed and ecological impacts are ignored.

### 1.3 THREATS TO THE RIFT VALLEY/RED SEA FLYWAY

15. The threat analysis is derived from problem reviews commissioned during the PDF-B from all 11 countries along the flyway. Annex 12 shows the problem tree constructed from these. The overall problem can be stated thus:

**Populations of many globally threatened and vulnerable migratory soaring birds are threatened by anthropogenic activities during their seasonal migrations along the Rift Valley/Red Sea flyway**.

**Hunting**

16. **Sport shooting and trapping, mostly illegal, kills many tens of thousands of MSBs along the flyway.** Impacts of hunting vary along the flyway according to national hunting practices and traditions and the degree to which legislation is respected and enforced. In Jordan, large numbers of raptors are hunted or caught along the Rift Valley margins, particularly

in the southern part of the Jordan Valley in areas close to Karak and Tafileh. In Lebanon, where hunting is a social sport and hunters have no knowledge of nor respect for species, season, timing, laws, private or protected land, or safety of others, practices include shooting, poisoning, capture and trapping using various mostly illegal practices (e.g. glue sticks, light equipment). MSBs such as eagles, vultures, ospreys, accipiters and falcons are all hunted despite protection under international law, particularly along the western slopes of Mt. Lebanon. In Palestine, despite hunting legislation and prohibition of weapons in the West Bank and Gaza Strip, trapping and netting continue unsupervised and killing of MSBs, particularly Honey Buzzard, Black Kite, Short–toed Eagle, and White Stork, is common throughout the Jordan Valley, but especially in Jericho District. In Saudi Arabia, hunting legislation prohibits use of fire-arms for hunting and only the "traditional" methods are permitted in specified areas and seasons, and no hunting is permitted in protected areas. Saudi hunting law is not comprehensively enforced, however, and raptors are sometimes shot in the vicinity of falconry areas. In Yemen, hunting and trapping sites include Bab Al-Mandeb, one of the most important points for MSBs crossing the Red Sea into north-east Africa. In the deserts of northern Sinai, Egypt, trapping of falcons is widespread with high value falcons caught along with other bird of prey species which are used as decoys or sold as pets or for taxidermy. White Storks are also hunted for food, generally by poorer communities along the Nile Valley. In Ethiopia, where laws are not enforced, wildlife is killed for subsistence and for commercial purposes and occurs in protected areas.

17. **Shooting of MSBs for sport** is considered the biggest single threat to MSBs at many bottleneck sites (see Annex 7) is a significant threat for many species. Although the shooting of all soaring bird species is generally illegal, huge numbers were routinely shot for trophies in the early 1990s in many countries, particularly in parts of the Middle East (especially Lebanon, Jordan, Syria, and Palestine). Tens of thousands have been shot in the past in Lebanon, and foreign hunters in Syria were estimated to shoot 10,000 – 100,000 birds per year. Military personnel have been observed using migrating raptors for shooting practice in Syria and Yemen. Despite a lack of quantitative data, there is abundant anecdotal evidence that hunting of migratory raptors remains widespread and largely indiscriminate. Although not quantified for any species, the numbers shot annually are probably sufficient to have significant impacts on the populations of some species. In 2004, reports of raptors shot in Jordan included the globally-threatened species Imperial and White-tailed Eagles along with Steppe Eagle, and Honey Buzzard; in Saudi Arabia an estimated 500 birds of prey are trapped annually at bottleneck sites, and in Yemen 500-1,000 birds are trapped annually. There is also a small trade in MSBs and illegal smuggling across borders, live as pets or stuffed birds for display. The situation is extremely bad in Syria where large numbers of birds are killed to support a thriving taxidermy trade. At sites (especially wetlands) where shooting is particularly prevalent, poisoning of MSBs due to discarded lead shot is believed to be an associated threat.

18. **Trapping of falcons** on migration to supply the demand for falconry in the Gulf States[4] is a particular concern in Syria, Egypt and Yemen. However, because it is known that falcons can fetch a high price on the market, other raptors are frequently caught in the misguided belief that they too will sell for falconry. In Saudi Arabia, illegal trapping of raptors is reported from Al Hada in the north and at Mugermah, a bottleneck site south of Jeddah, with an estimated 500 birds trapped annually. In addition, the by-catch of non-target species is high, and many birds are killed and maimed during the trapping process – such birds not showing up in the statistics on trapped/traded birds. Other reliable estimates include 30-40 large falcons (nearer 100 in a good year) in Egypt, and 100 Lanners in Yemen taken annually.

19. **Persecution of MSBs** has historically been a key factor causing population declines and range contractions in many raptors. While legal protection of most raptors in almost all developed countries has greatly reduced this, in the countries of the Rift Valley/Red Sea flyway legal protection is often poorly enforced and persecution is considered to have been one of the main causes of severe declines in many raptor populations in parts of the region over the past 50 years, including the local extinctions of Greater Spotted Eagle *Aquila clanga*, White-tailed Eagle *Haliaeetus albicilla*, Lappet Faced Vulture *Torgos tracheliotus* and Lammergeier *Gypaetus barbatus*.

**Energy**

20. **Wind turbines, powerlines and pylons present collision and/or electrocution risk to MSBs and injure or kill birds on the flyway**. Collision with power lines and associated structures is a major cause of death and injury to MSBs and major economic losses accrue from the ensuing power cuts. Large and less manoeuvrable species such as *Aquila* eagles, vultures, and storks are most susceptible. Quantitative data is largely lacking from the Rift Valley/Red Sea flyway but good data is available from the USA and Spain. A study along the Jordan Rift Valley showed that of 147 White Storks found dead between 1993-97, 87 (59%) had died after collision with power lines, and another 361 were counted with broken wings, legs or beaks attributed to similar collisions. Another study of White Storks fitted with transmitters showed that in

[4] Falconry is a widespread and institutionalised sport in the Gulf States and depends on a supply of falcons of which the Peregrine *Falco peregrinus*, Saker *F. cherrug* and Lanner *F. biarmicus* are particularly favoured if wild-caught.

1995-98, 10 of 84 birds (12%) killed during their migration through Europe and Turkey, died after collision with power lines. Detailed calculations from the State of California published in 2005 suggest that the annual cost of wildlife-caused power cuts lie between US$32 million and US$317 million – a level of loss that developing countries can not afford to sustain. Other anecdotal evidence indicates that wildlife interactions with power lines can have other costs, e.g. a fire in 2004 triggered by a hawk colliding with a power line prompted the evacuation of 1,600 homes and charred 6,000 acres; in 2005 Los Angeles International Airport experienced three power cuts attributed to bird collisions within 10 days, delaying flights and threatening airport security; and the California Condor Recovery Team reported that nine of the 144 condors released into the wild since 1992 at a cumulative cost of nearly $40 million have died from electrocution from power equipment – a cost of US $2 million to the taxpayers. The most detailed quantitative bird data come from Spain where in the late 1990s 1% of the population of White Storks present during post breeding migration died on power lines and 7% did during pre-breeding migration and wintering season – annual mortality rates from collision of 3.9 birds/km and electrocution of 0.39 birds/pylon. Also in Spain, a large percentage of the country's Bonelli's Eagles are killed by electrocution and collision with power lines. Other species for which figures are available from a year's survey along a 100km length of power lines are[5]: Black Kite 82; Common Buzzard 35; Red Kite 15; Griffon Vulture 14; Kestrel 10; Booted Eagle 9; Short-toed Eagle 8; Bonnelli's Eagle 4; Egyptian Vulture, Goshawk and Peregrine 1 each. Elsewhere in the world studies show that constant low level mortality exists. In South Africa, during three years of monitoring of an unknown length of power lines, 59 Blue Cranes, 29 Ludwig's Bustard, and 13 White Storks were found dead. In another study from South Africa, bi-monthly monitoring of a 10 km section of 132kV power line killed 0.36 White Storks per year plus other large cranes and bustards. Between 1968-98, the US Fish and Wildlife Service documented over 1,000 raptors electrocuted in the eight-state Mountain-Prairie region alone. By extrapolation the problem is much greater resulting in hundreds or thousands of birds dying every year across the country. Along the Rift Valley/Red Sea flyway, countries with existing or planned networks of pylons and wires of particular concern for MSBs include Kfar Zabad in the Beka'a Valley, Lebanon, where new powerlines are being constructed next to marshland; Ein Mousa and Ain Sukhna along the northern Red Sea, the El Qah plain of South Sinai, and very high pylons conveying power across the Suez Canal and River Nile in Egypt; power stations at Hodiedah, Mokha and Aden linked by a network of pylons along the Yemeni coast; Hirgigo and Asmera in Eritrea; and Merowe and Khartoum along the Nile Valley in Sudan.

21. Collision with wind turbines is an increasing threat for MSBs. The majority of studies indicate that while collision rates per turbine are low, mortality can be significant where wind farms comprise several hundred turbines, especially so for rarer longer-lived species. Evidence from the US suggests that this is a site-specific problem which does not affect wind turbines generally, and in Australia all studies report low levels of mortality. In California, a comprehensive four-year study has shown that at the Altamont Pass Wind Resource Area, comprising 4,955 turbines (494MW), 1,766-4,721 birds are killed annually including 881-1,300 raptors while at Solano County Wind Resource Area comprising 90 turbines (162MW), another study showed 95 raptors are killed annually. However, at Tehachapi Wind Resource Area comprising 3,591 turbines, early studies found low bird use and corresponding low fatality rates although raptors still appear to be more susceptible to collision than other birds. Limited studies at wind sites in Minnesota where raptor activity is low report few or no deaths. High levels of mortality have been found by some studies of smaller numbers of turbines in coastal locations with large concentrations of waterfowl, and it seems appropriate to use caution in siting wind projects in known areas of high migration. The Gulf of Suez and northern Red Sea coast have a high wind energy resource, and wind farms are being developed at Zaafarana and planned for Gabel El Zeit in Egypt. There are also plans to develop wind farms at Rhaita, Ghahro, Haleb, Asseb Port, Beilul and Berasole along the Red Sea coast of Eritrea and Gizgiza in Eritrea, all of which pose a risk to *Aquila* eagles passing through these areas unless carefully sited.

**Agriculture**

22. **Toxic pesticides and untreated effluents may poison some species of MSB along the flyway**. Agriculture provides livelihoods for large proportions of the populations of most countries along the flyway. Intensification has brought about the increased use of agro-chemicals, particularly pesticides. As a result, mortality from pesticide poisoning through ingestion of prey or through drinking contaminated water while on migration may represent a significant threat to MSBs in the region. The extent of the problem has not been measured in most countries and is largely unquantifiable, but most national reports undertaken during the PDF-B cite this as potentially one of the most significant damaging impacts to MSBs. Extensive and intensive use of pesticides occurs throughout the region, and is of particular concern in the northern Jordan Valley; over much of the agricultural lands of Yemen; the Jericho District in the Palestinian Territories; in Syria, particularly on state-controlled lands in northern, central and coastal lands where pesticides may be provided free by the government; in Saudi Arabia, especially following the creation of farming lagoons and irrigation schemes where intensive farming is promoted; in recently reclaimed desert lands in Egypt which traditionally use heavier pesticide loads than established agricultural lands; in Gezira and government-run lands in Sudan; and on the Hazomo plains in central Eritrea.

[5] Numbers exclude those lost to scavengers

Contaminated water, due to agricultural runoff, is a particularly high risk to MSBs in hot deserts, where thousands of birds could be affected in a single event.

23. Rodenticides, used to control outbreaks of rats and voles in agricultural areas, can be a particular problem to raptors, particularly anticoagulants, zinc phosphide and sodium fluoroacetate; whilst insecticides to control locusts (vast areas are frequently sprayed in the event of an outbreak) and other insects can affect migrating storks. Avicides, used in particular against Red-billed Quelea *Quelea quelea*, can also lead to indirect poisoning of raptors. The incidental (or sometimes deliberate) poisoning of scavenging birds of prey, such as vultures, kites and eagles, by carcasses laced with rodenticides laid as bait to kill wolves, jackals, foxes and feral dogs that are said to prey on sheep, chickens or other livestock, is widespread over much of the Rift Valley/Red Sea flyway, although its impact has not been quantified Poisoned baits are used because they are the cheapest way to control predators in livestock areas but the risks to other animals are not recognised by farmers. Sub-lethal doses of pesticides can also adversely affect survivability and reproduction. As above, the impact of pesticides is probably greatest for storks, pelicans, cranes, harriers and falcons, rather than those that simply pass through the region rarely stopping to feed.

**Waste management**

24. **Open land-fill sites and waste water treatment plants attract, injure, and kill MSBs.** Waste management is generally poorly managed and large amounts of exposed waste attract scavenging birds including soaring raptors. Visiting birds can ingest toxic substances and frequently become entangled in plastic, wire, and other debris, or are injured by metal scrap or fire. Large numbers of MSBs often also die at poorly managed waste water treatment facilities (domestic and industrial) due to drowning, entrapment in sludge (due to inappropriate pond designs) or die or become sick from drinking contaminated water. Waste sites pose particular threats in desert environments where they represent an obvious and attractive source of food and water to MSBs. In a rare study, the 60-year old Betgiorgis land fill site on the eastern outskirt of Asmara, Eritrea, (at the top of the eastern escarpment, an important bottleneck) was shown to contain 546,000$m^3$ of solid waste increasing at a rate of 1.2%/year. Samples taken from the site showed a high concentration of heavy metals – lead, cadmium, mercury, zinc, and chromium – along with hydrocarbons, pesticides, dyestuffs, and radioactive substances. Many MSBs (and other wild animals, e.g. baboons) feed at the site and frequent deaths of MSBs have been reported by local people, though there is no quantitative data on mortality. Accidental poisoning of raptors at open rubbish tips from poison baits set to control scavenging foxes, jackals and feral dogs is a problem in some areas of the Middle East. Such baits are the cheapest way to control predators at waste sites and risks to other animals are not recognised by, or are unimportant to, site managers

25. Systematic and quantitative data relating to the problem along the flyway is again lacking, but sites where waste management is known to be a threat to MSBs include the River Hasbani in Lebanon, where domestic and industrial waste management are considered major problems; Taiz solid waste dump and lagoons in Yemen, where cement, pesticide and soap factories and livestock breeding facilities dispose of their waste and where thousands of storks and raptors feed; at Sharm el Sheikh in Egypt where White Storks congregate at the tips; and numerous tourist resorts along the Red Sea coast and military camps, e.g. along the coast in Yemen and Djibouti. In Egypt and Sudan there are unregulated discharges of industrial effluents into the River Nile, Suez Canal and coastal areas, where much of both countries' industries are based (e.g. a manufacturing and industrial zone and port at Ain Sukhna, Suez, Egypt, which is a very important bottleneck for MSBs, and many other areas have been identified for future industrial development, e.g. El Qah Plain in Egypt[6].

### 1.4 BARRIERS TO MAINSTREAMING

26. The Rift Valley/Red Sea flyway is the second most important flyway for migratory soaring birds (MSBs) in the world with over 1.5 million birds comprising 39 species migrating along this corridor twice each year between their breeding grounds in Europe and West Asia and wintering areas in Africa. Between 50-100% of the global or regional populations of some of these species pass along this route and through narrow "bottlenecks" in the space of just a few weeks, which makes them highly vulnerable to human threats particularly from hunting, energy and waste management sector developments and certain agricultural practices. Unfortunately, because migration movements are largely weather dependent it is difficult to predict where the birds will land and a traditional site-based approach to conservation of MSBs is neither practical nor feasible (or cost-effective). Conservation actions need to address the flyway as a whole, at a regional rather than at a national or site level. Therefore, the project seeks to address the threats to the birds through mainstreaming

[6] In Egypt, the proliferation of garbage has led to a dramatic increase in the Indian House Crow population at Suez and other sites along the Red Sea coast, estimated in the thousands to tens of thousand. Indian House Crows have been observed harassing migrating birds of prey flying through, and roosting in, the area and are thought to be a factor contributing to the declining numbers of MSBs migrating through Suez.

MSB considerations into the productive sectors that pose the greatest risk to the safe migration of soaring birds along the flyway. However, there are a number of barriers that currently handicap the use of the mainstreaming approach in this context which are detailed below:

- Ignorance of flyway concept and value of the birds: Very few people outside of the conservation sector understand the larger picture of bird migration, particularly the concept that their country is a link in a chain of countries through which the birds migrate i.e. that the flyway is a single unit and that actions taken in one country can have knock-on effects beyond its borders, and that there is therefore a joint responsibility for the conservation of these birds.Equally importantly, most are unaware of the potential economic benefits from protecting these birds along the flyway, such as the local and national benefits from ecotourism development at bottleneck sites, or the benefits to production sector companies in niche markets where consumers look for environmentally responsible producers. Similarly, there is a low appreciation of the potential costs of inaction, e.g. migrating birds hitting powerlines can cause shortages and disrupt electricity supplies which can be very costly, or the ecological functions that some species perform, e.g. rodent and insect pest control, and therefore how protection of these birds can directly benefit farmers and other local land users. However, once individuals appreciate that they can directly benefit economically, socially, culturally environmentally and at a personal, community and national level from protecting the flyway and understand that this requires an international coordinated approach, support for conservation measures to protect MSBs will grow and individual behaviour and sectoral practices towards the birds will alter. This can be reinforced through generating a sense of pride in and responsibility for the birds that pass through their country.

- Difficulty in gaining sector entry: A major obstacle to mainstreaming MSB issues into productive sectors across the region is gaining entry to those sectors in the first place. MSBs are not a major issue for productive sector change as they currently have limited economic value in the region and do not drive sector markets, do not represent a traditional concern to the productive sectors' constituents, and their conservation is of a regional nature, and hence is generally not treated as a national priority. As a result, they have little intrinsic ability to act as a driver of sectoral change. Although there has been a shift among conservationists to dialogue and partnership with productive sectors, global initiatives are still largely led by multilateral or bilateral institutions, well-funded environment ministries or the largest of the international NGOs. It continues to be difficult for national NGOs (and indeed under-resourced environment agencies) to gain entry into national productive sectors where capacity levels on both sides are low and processes for policy setting and budget allocations have not traditionally been participatory and open for public scrutiny and comment.

- Difficulty in addressing change within complex sectors: Even assuming sector entry can be accomplished, leveraging the desired changes within the chosen sector presents a number of barriers. Firstly, sectors have to be addressed issue-by-issue, market-by-market, country-by-country all along the flyway. There is no common market or regional policy mechanisms existing that allow MSB issues to be addressed at the flyway level. Secondly, sectors do not function as homogenous two-dimensional businesses with clearly defined counterparts representing the entire sector. It is necessary to have a deep appreciation of the complex web of interests, levers and incentives as well as external influences that drive sectoral change and to work with these to design effective sectoral change mechanisms. Thirdly, the capacity to bring about change must be in place. The capacity to bring about sectoral reforms varies greatly both between the agencies and other stakeholders involved within a country, and between similar agencies in different countries leading to difficulties in coordinating necessary reforms across the flyway as a whole. Finally, all successful "agents of change" must convince the sector actors that the change is in their own interest. This is a two-fold process of building an appreciation of why the change is necessary and also of how economic benefits will accrue from the change. Mainstreaming the spectacle of MSB migration into eco-tourism sectors represents the best opportunity to demonstrate an economic value to countries along the flyway that mainstream MSB considerations into the threatening sectors.

- Shortage of technical information on which to base decision-making: It has become apparent during the PDF-B that there is a lack of quantitative information on whether and how some productive sectors are having an effect on populations of MSBs. This is a major barrier since it limits the design of appropriate responses. While experiences from other countries strongly suggest that certain issues should be considered as causes for concern and the precautionary principle should be applied (e.g. heavy use of organic pesticides, location of power lines and turbines along the flyway and particularly close to bottlenecks), actual data on the scale of the problem are poor. This is important since other experiences can differ in small but possibly crucial ways (e.g. the impacts of pesticides in raptors in the northern hemisphere in the 1950/60s came about from bioaccumulation through the food chain, but many soaring raptors appear to feed little or not at all during their migration so may by-pass the potential problem). The project will need to establish the real level of threat posed by some sectors and provide appropriate resources for the collection and dissemination of data on MSBs throughout the region.

### 1.5 STAKEHOLDER ANALYSIS

27. Various participatory approaches were employed, as appropriate, in each of the 11 project countries during the PDF-B stage, to identify and involve project stakeholders (both beneficiaries/ supporters and those who may be opposed to the project or consider that it may have a negative impact on them). National stakeholder workshops were held in 8 countries (in most cases these dealt with the initial problem analysis for the project; in one case, Syria, the focus was on education and awareness and participants included representatives from education and other sectoral ministries including agriculture, electricity, tourism and others). In other countries (e.g. Egypt) aspects of project preparation, including the problem analysis, were carried out as desk exercises. In all countries, there was extensive consultation with relevant ministries, their agencies and other identified stakeholders at various stages of the project preparation (through bilateral meetings, circulation of draft national reports for review and comment, provision of relevant information and feedback on project development from key stakeholders). Due to the "mainstreaming" nature of the project, these consultations involved a very wide range of organisations and sectors, including productive sectors identified as having actual or potential negative impacts on MSBs (agriculture, hunting, energy, waste management) and sectors with potentially positive impacts on MSBs conservation (tourism, education). Project partners carried out national analyses, identifying for each stakeholder: their current role; priorities; expected or potential role in the project; nature of involvement in PDF-B phase; "readiness" and "power" to contribute; in some countries a ranking as "essential", "supporting" or possible "conflicting" relationship with the project. Capacity and training needs assessments were also carried out for each relevant sector. A Stakeholder Participation Plan is provided in Annex 5.

### 1.6 BASELINE ANALYSIS

28. The countries of northern and eastern Europe have invested significant resources in the conservation of raptors and other MSBs on their breeding grounds. In eastern and southern Africa, countries have also invested heavily in conservation, and tourism, primarily ecotourism, now accounts for significant economic activity, e.g. in 2003 Kenya played host to over 1.1 million tourists earning US$339 million, its third largest foreign exchange earner, while in Botswana, tourism has become the country's second largest foreign exchange earner now earning $240m a year accounting for 10% of the GDP. The weak link for MSBs in migrating between their breeding and wintering areas is that conservation in the countries along the Rift Valley/Red Sea flyway is at best well-intentioned and at worst absent. Without this UNDP-GEF intervention, the awareness of the need for conservation of MSBs will remain low, the requisite information base upon which to base conservation measures will remain poor, conservation legislation will remain weak, the technical capacity for conservation activities and the resources committed to the enforcement of environmental regulations will remain inadequate, and the economic incentives necessary to encourage fundamental changes in human behaviour will remain unshaped. As a result, MSBs will continue to be shot in large numbers as they pass through Syria, Lebanon, Jordan and Palestine; collide with powerlines and wind turbines at existing and new sites; and succumb to physical and chemical threats associated with agriculture and waste management.

29. The existing pressures upon MSBs that add significantly to the mortality rates experienced during naturally hazardous journeys – those of shooting, trapping, poisoning, and collision – will continue to increase as human population and industrialisation in the flyway countries continues to grow. In addition, without the necessary conservation measures, inadvertent destruction and degradation of key bottleneck sites along the route will escalate as agricultural, industrial, and tourism development continues to occur without knowledge of MSBs' requirements and hence with inadequate planning controls and environmental mitigation measures.

30. The 11 countries making up the Rift Valley/Red Sea flyway receive varying amounts of foreign assistance through bi-lateral and multi-lateral projects and programmes. These provide support for development and reform across the spectrum of productive and other sectors in an effort to help the countries reach their full potential. This level of assistance will continue in the absence of this proposed GEF project but will continue to have little or no beneficial effect on MSBs (and in some cases may inadvertently have negative impacts for them), and the opportunity available for them to act as vehicles of change for MSB issues will be lost. For example, although a USAID-funded project will promote sustainable tourism development along the Red Sea and include significant conservation actions, no specific opportunities to include MSB issues will be realised. Similarly, although efforts will be made to strengthen the enforcement of environmental legislation in Lebanon and Jordan through EU-funded projects, no specific attention will be given to MSB considerations in developing legislation, and no support will be provided to the application of environmental legislation with respect to MSBs. In Djibouti, a World Bank-funded project is seeking to stimulate development of renewable energy in the country through erection of a 2 MW wind farm at Ali-Sabieh and restructuring of the power sector, but no actions to include MSBs in the wind farm's design or in a renewable energy strategy are included.

31. In the business-as-usual scenario, a number of national and local conservation-based NGOs – particularly the national partners in the BirdLife network – will continue to promote the conservation needs of MSBs. However, these will

mainly be small-scale interventions at the level of individual sites. They will also be more traditional conservation approaches – advocating site protection and management measures. The better run organisations will have some limited reach into Ministries of Environment and may be able to contribute to conservation policies, but this will be on an *ad hoc* basis and without any specific focus on MSBs. In the business-as-usual scenario those national organisations best placed to act as MSB "agents of change" within the threatening sectors will have virtually no contact with those productive sectors, except perhaps isolated farming communities. They will have no influence over decision-makers within the sectors and it is safe to conclude that MSB considerations will not be taken into account in any of the target sectors.

32. General tourism is a significant contributor to national economies throughout the region (e.g. US$69 million in Sudan in 2004; US$1.3 billion in Lebanon in 1998). The World Tourism Organisation (WTO) estimates that "nature tourism" specifically generates 7% of all international travel expenditure and predicts that receipts from international tourism will climb by 6.7% a year over the next two decades. Nature travel is estimated to be increasing at an annual rate between 10% and 30%. Another global estimate is that 40-60% of all international tourists are "nature tourists" and that 20-40% are wildlife-related tourists (calculated differently). Governments recognise the potential benefits of ecotourism. At least 6 of the 11 project countries include ecotourism in national tourism or development strategies or are considering its inclusion as a specific sub-sector. In Palestine, for instance, there is a Wildlife Society/ Ministry of Tourism MOU to promote ecotourism. In Egypt the southern Red Sea coast has been declared an "eco-tourism zone". In the business-as-usual scenario, this zone would be developed without specific reference to the migration spectacles that occur at Suez and the Ras Mohammed/El Qa/Gebel El Zeit crossing. The Egyptian Tourism Federation has established an eco-tourism committee to oversee implementation of environmental regulations by the tourism industry, but while the committee mandate does cover the issue of bird hunting tourism, there is no specific reference to managing this niche tourism with MSB migration.

33. Economic and social and benefits can be derived from the fantastic spectacle of large soaring birds concentrated at migratory bottleneck sites (themselves often wild areas attractive for nature tourism, e.g. Wadi Dana in Jordan). Facilities and tours can be designed to ensure that local communities derive income and to raise awareness of the conservation needs of MSBs, as has occurred in other regions (e.g. US$ 31 million into the local economy at Cape May bottleneck site, New Jersey from more than 100,000 birdwatchers annually). Several flyway countries have established ecotourism industries (e.g. 63 "nature-based" tourism companies in Ethiopia; estimate of 15% of tourists in Yemen are "ecotourists"; nearly 2000 "ecotourists" including students each year using one tour operator in Lebanon). "Ecotourists" visit many bottleneck sites (e.g. Abijata-Shalla lakes in Ethiopia; Jordan Valley, many Red Sea sites). In Lebanon, the total recreational value of bird-watching is estimated at US$ 1.65 million annually and Ministry of Tourism web sites list bird-watching as an activity at some bottleneck sites. The direct economic benefit from visitors to Al-Chouf Nature Reserve is estimated at US$ 50-70,000 a year (plus US$ 100-150,000 indirect benefit to the local community). However, in general, visits to such bottleneck sites in the region are not marketed as MSB tours, countries do not collate information on numbers of birdwatchers or reasons for visits, no specific attempts are made to raise awareness of MSBs conservation and few economic benefits are derived by communities local to the sites. There is huge potential to achieve both national and local economic benefits through more active promotion of the "MSBs experience" while also using this to achieve greater awareness of MSBs conservation needs.

## PART 2 : Strategy

### 2.1 PROJECT RATIONALE

34. Threats to MSBs along the Rift Valley/Red Sea flyway will continue to grow over time. Although conservation actions are being taken by some of the countries involved, these are generally of a broad nature whose influence on MSBs will be peripheral. There is no indication that specific actions will be taken shortly, or in fact that they will occur at all. A number of barriers have been identified that work against the reform of productive sectors to assimilate MSB issues and this UNDP-GEF intervention is designed to remove these to facilitate cost-effective modification of people's economic and social behaviour by mainstreaming MSB issues into such sectors. The traditional approach to mainstreaming conservation issues into productive sectors involves building awareness, establishing effective relationships between the project and sector agencies and advocacy at high political and donor level to gain sector entry, and then building sufficient capacity and technical knowledge to ensure a shift in sector policy and practice. These can be lengthy, requiring several years, and very costly with the creation of new institutional structures and expensive staff appointments, and even then integration of the conservation message can still be poor. Given the low intrinsic ability for conservation issues to drive change management or reform processes, particularly in the key productive sectors where the scale and political impact are large; the resources needed to achieve change; and the capacity and readiness of productive sectors to receive independent contributions from conservation NGOs, the traditional approach of using the GEF project as the vehicle of change has been deemed unlikely to be successful here.

35. As an alternative, this UNDP-GEF intervention intends to use a new innovative approach by making partnership agreements with existing or planned donor-funded development projects termed "*vehicles*" (e.g. introducing reform processes, institutional, and sectoral strengthening programmes) to provide specified technical services on MSB issues to be mainstreamed through those vehicles. The term "*Double Mainstreaming*" has been coined to describe this process, i.e. in order to mainstream MSB flyway issues into the key productive sectors, the project will mainstream MSB considerations into existing vehicles of reform or change management in those sectors. It is anticipated that agreements will be negotiated between each targeted vehicle and this project for BirdLife national partners to act as service providers delivering technical content (e.g. technical advice, training courses, guidelines) on MSB and flyway issues into relevant activities to be undertaken by the vehicle. This project will fund this service provision while the vehicle will co-finance its delivery through its existing or planned activities. To this end, in principle agreements have already been reached with six sectoral programmes of different Governments and NGOs in four countries within the flyway, which are funded by the EU, World Bank, USAID, and UNDP, to provide MSB technical content into these six vehicles. Specific agreements will be negotiated before CEO endorsement. Full details of the project are given in the next section.

36. The double-mainstreaming approach will use existing structures and relationships to deliver MSB content and tools directly into current mainstreaming processes, plans and projects, and as a result is believed to offer a greater reach and deeper penetration into the key sectors than a traditional approach that looks to "inject" mainstreaming messages from outside the sectors, often as add-on programmes managed by the environmental sector agencies. Consequently, the chances of success in overcoming the identified barriers and in producing effective and enduring change are envisaged to be much higher. In addition, project costs will be reduced because project management, capacity building and field operating costs will be largely shared with, or taken up by, the targeted vehicles; there will be less need for expensive demonstration sites; and, other than a Regional Flyway Facility (see below), no new institutional structures will need to be created. Furthermore, levels of co-financing from national and local government environmental agencies will be lower and consequently, more likely to be delivered.

37. Initially the approach will be demonstrated through 6 pre-identified practical examples, covering the key sectors. These projects have been selected through extensive discussions between UNDP-GEF, UNDP Country Offices, the BirdLife national partners and the concerned programmes' stakeholders, resulting in in principle agreement for all six. Content delivery, and operational, financial and management arrangements will be formalised before CEO endorsement. The six selected projects to demonstrate the double mainstreaming approach are[7]:

- *Strengthening the Lebanese Judiciary System in the Enforcement of Environmental Legislation (SEEL), Lebanon* – funded by the EU. GEF-funded technical provision will include raising awareness of the impacts to MSBs from weak law enforcement in the target sectors; reviewing jurisprudence cases specifically related to birds; identifying MSB experts relevant for the database; developing MSB training modules and training experts and judges in flyway issues, including international law relevant to MSBs, and the impacts from the target sectors and legislative enforcement; reviewing environmental legislation materials relevant to MSBs; carrying out a needs assessment; and developing new modules relevant to MSBs for the Environmental Course to be introduced in the Institute of Judicial Training at the Ministry of Justice.
- *Strengthening Environmental Enforcement, Jordan* –funded by the Royal Society for Nature conservation, Jordan. GEF-funded technical provision will include joint field patrols during migration seasons at critical bottleneck sites; MSB training needs assessed and training provided for environmental police department and wildlife liaison officers; linking regional cooperation to the regional flyway facility; monitoring of local markets for MSBs for sale; developing MSB sustainable hunting guidelines; working with hunters groups to agree and apply sustainable hunting guidelines; promoting sustainable hunting at MSB bottleneck sites in Jordan; reviewing existing legislative and regulatory enforcement and incentive systems related to MSBs; assessing the efficiency of existing systems to support enforcement of MSB protection laws; identifying other legislation relevant to MSBs (eg. waste management) and developing training materials; training of experts and judges in international law relevant to MSBs; reviewing jurisprudence cases specifically related to MSBs; provide best practice MSB legislative models from USA and Europe; and BirdLife International establishing links to a RARE "Pride" campaign.
- *Building Capacity for Sustainable Hunting of Migratory Birds in Mediterranean Third Countries, Lebanon* – funded by EU LIFE. GEF-funded technical provision will include Providing training on MSB identification and survey techniques to include MSBs in national data gathering arrangements, national reports and position papers; incorporating MSB considerations in the Guidelines for Sustainable Hunting and ensuring that the strategy paper

[7] Full details of these projects, the proposed double mainstreaming activities envisaged, and the costs and co-finacing estimates can be found in the Incremental Cost Analysis in Annex 1 in the Executive Summary

reflects these; sharing the guidelines with other countries along the flyway; provision of a study tour to Lebanon for other countries on the flyway where hunting has been identified as a threatening sector; promotion of sustainable hunting at MSB bottleneck sites in Lebanon; establishing links to the RARE "Pride" campaign and provision of MSB-specific educational materials to hunters' groups; introducing specific MSB information to a general awareness campaign on responsible hunting; providing links to the SEEL project (above); providing best practice MSB legislation models from USA and Europe; reviewing incentives and mechanisms to complement enforcement and financial mechanisms to fund enforcement; supporting the enactment of hunting legislation; developing MSB modules for workshops to resolving conflict and building partnerships; and linking the regional action plan process to the Soaring Birds regional flyway facility; supporting production of the regional action plan and disseminating it to the project partners.

- *The Power Access and Diversification Project, Djibouti* – funded by the World Bank. GEF-funded technical provision will include provision of guidance on the micro-siting of the individual turbines at Ali-Sabieh as this can be critical to MSBs (e.g. avoidance of wetland areas, use of concrete bases to prevent build-up of rodents which can attract birds); development and operation of a monitoring programme to determine mortality at the wind-farm and turbine levels (as per the recommendation of the WB EIA) including training of wind-farm staff in bird ID and mortality analysis, and feed results into the strategy to scale-up wind energy to 10MW; testing mitigation measures if mortality rates are high using schemes being tested in the US and Europe, e.g. factoring critical migration periods into the turbine operation schedule, painting blades with ultra-violet paints; training wind-farm managers in MSB issues, field surveys and monitoring techniques; awareness raising around the site of the wind-farm's bird mitigation efforts; development of a "flyway friendly" accreditation scheme to be used by the wind-farm and the electricity it sells; contribution of MSB data and considerations into any national wind-power generating strategy; and contribution to the choice of area in which the wind farms are sited, through: provision of national MSB data including migration data overlays for site selection and demarcation of critical bottleneck boundaries, and input into field surveys as part of the EIA.

- *Sustainable Economic Growth in the Red Sea Governorate, Egypt* – funded by USAID LIFE. GEF-funded technical provision will include ensuring that the ecotourism framework accounts for "flyway friendly" issues at regulatory, financial, marketing, and management support levels; including MSB concerns as part of ecotourism branding; developing training modules and delivering training on MSB concerns for the ecotourism sector; including MSB concerns in solid waste management systems at the design and implementation levels; introducing "flyway friendly" considerations into Environmental Assessments of energy components of the project; undertaking capacity needs assessment and delivery of training related to MSB for concerned stakeholders; undertaking monitoring and surveys and establishing an MSB-related database; and awareness-raising related to MSBs.

- *Agricultural Development Project, Lebanon* – funded by the EU. GEF-funded technical provision will include identifying experts on MSBs for provision of technical advice along with technical packs, newsletter and website information; introducing MSB concerns to and training of farmers' groups; researching links between pesticides and MSBs and monitoring the impact of pesticides on MSBs; assessing feasibility of "flyway friendly" markets for agricultural products; developing "flyway friendly" pesticide use and "flyway friendly" marketing material; piloting agreements ensuring promotion of "flyway friendly" products; developing niche "flyway friendly" products and adopting MSB bottlenecks as geographical indicators for territories and niches produce; developing "flyway friendly" practice guidelines for Good Agriculture Practice Charters; and providing MSB information material for awareness campaigns.

38. The intervention will establish a mechanism that can replicate the double mainstreaming approach along the flyway and across any number of targeted sectors, so that eventually all relevant practices within such sectors along the flyway can be declared responsive to MSB issues. It is anticipated that it will take at least ten years to achieve such a level of coverage. Given this timescale, outcomes have been programmed over this period based on the planned operational chronology. To this end, the project will be implemented in two Tranches over a ten year period, with the possibility of a follow-up project providing a third phase. The first two segments are here submitted to the GEF as a **Type II Tranched project** – i.e. seeking the Council's approval of the entire amount for the two Tranches, but delegating the CEO to endorse the second tranch subject to the satisfactory achievement of the triggers detailed below.

39. The first Tranche will establish the environment required to initiate the double mainstreaming approach. This includes the creation of the Flyway concept and its application as a marketing tool in selected awareness campaigns, establishment of the Regional Flyway Facility, building the capacity of the BirdLife national partners to provide all aspects of the double mainstreaming approach, and the testing of the double mainstreaming approach in at least six pre-identified reform vehicles (see Annex 10 for more information).

40. Several of the countries with particularly low capacity will receive increased capacity building to enable them to be included as full project partners during the second Tranche of the project and achieve initial targets set then. Most of the double mainstreaming activities will take place in countries with partners that already have good institutional structures, capacities and resources, particularly Jordan and Lebanon.

41. The second Tranche will commence on the satisfactory achievement of the following triggers:

- Successful execution of at least four of the double mainstreaming pilots in Tranche I with at least one success in a country in the Middle East and one in Africa (as indicated by the PIR);
- Commitment of (a certain/equal) co-financing ratio for Tranche II that would include altered baseline funding for the reform vehicles and 2:1 cash co-financing for the Flyway Facility;
- At least 5 BirdLife national partners achieving (certain) capacity markers that indicate their ability to provide double mainstreaming technical content; Birdlife senior managers to do
- BirdLife national partners have identified and negotiated agreements with at least one new reform vehicle that is congruent with the Regional Flyway Facility's criteria and guidelines; and
- For moves into new target sectors, the establishment of material links between sector activity and bird mortality along the flyway and the establishment of baseline data against which impact indicators can be measured.

42. This second Tranche will establish the sustainability of the Regional Flyway Facility and expand the application of the double mainstreaming approach to more participating flyway countries (see above), and additional sectors and reform vehicles in the first group of countries. The third phase would seek to leverage the Flyway marketing tool, the expertise of the Regional Flyway Facility and the double mainstreaming experiences into a financially viable mechanism that is able to offer technical mainstreaming services on a commercial basis and to recognised standards (such as a certification process or audit standards). It is expected that significantly less GEF funds would be required for the second Tranche owing to the co-financing triggers and the fact that the first Tranche includes start-up costs, particularly for the Regional Flyway Facility – see cost estimates.

### 2.2 PROJECT GOAL, OBJECTIVES, OUTCOMES AND OUTPUTS/ACTIVITIES

43. The overall project goal is to ensure that globally threatened and significant populations of soaring birds that migrate along the Rift Valley/Red Sea flyway are effectively maintained. The immediate objective is that conservation management objectives and actions for MSBs are mainstreamed effectively into the hunting, energy, agriculture, waste management and tourism sectors along the Rift Valley/Red Sea flyway, making this a safer route for soaring birds.

44. The initial phase of the project will have four components to deliver the expected outcomes – development of the Flyway concept to be used for "flyway friendly" promotion and double mainstreaming; building capacity of national partners and other agencies to effect double mainstreaming; the actual delivery of double mainstreaming to incorporate MSB issues into targeted sectoral programmes; and the monitoring and adaptive management of the approach.

**Outcome 1: Raised awareness of the flyway and altered social and cultural behaviours among target groups that threaten MSBs in the key sectors, decision-makers and the general public**

45. Multi-sectoral and multi-stakeholder partnerships will be developed at regional, national, and local levels to effect long-term changes to the perception, value, and sustainable management of MSBs along the flyway leading to three Outputs.

*Output 1.1: Concept of MSB Flyway established and promoted*

46. The development of the Flyway concept is critical to the success of the project. It will articulate why MSB considerations are important and reinforce the position that flyway considerations have a value and are worth mainstreaming into the target productive sectors. The aim is to lift the barriers to sector change. It will create a "brand" upon which a common approach can be based all along the flyway that simply and creatively expresses the aim of the project – to have the needs of MSBs mainstreamed into the targeted productive sectors. This will provide the foundation for the development of a marketing strategy, a logo, presentational materials (leaflets, fact sheets, powerpoint presentations) and other standardised project materials that can be applied across the project, both for awareness-raising and authenticating productive sector actions as "flyway friendly". Regional stakeholder workshops will be held during the inception stage to develop the Flyway concept, a project communication strategy prepared and a professional marketing company engaged to advise on logo design and branding of project materials.

*Output 1.2: Regional "Flyway Facility" established to promote mainstreaming of MSB considerations*

47. A regional "Flyway Facility" will be established that will help overcome the barrier of lack of information. It will allow content providers and recipients to communicate and share knowledge throughout the flyway acting as an interactive repository for all issues connected to MSBs and the double mainstreaming process. This will be provided through the Facility staff themselves and targeted additional technical services; project services and products. It will provide a source of MSB and flyway concept materials, including details of training courses and guidelines, manuals, information sheets; links to funding sources for local mainstreaming initiatives and other relevant data sources. It will establish partnerships, especially with relevant actors in the MSBs' breeding and wintering grounds (e.g. EU conservation programmes).

48. The Facility will develop eligibility criteria for double mainstreaming (which sectors to mainstream into, what sort of "vehicles" are acceptable, what instruments will measure benefit) and review and facilitate the maintenance of content standards along the flyway. The Facility will also develop delivery systems and incentive schemes for mainstreaming MSB issues into the key sectors. For instance, during the second Tranche the Facility will develop a certification system for 'Flyway Friendly' services and products that promote conservation of MSBs, and establish links to eco-labelled markets,.

49. The Facility will include staff experienced in marketing and business development, communication and advocacy as well as technical issues relating to MSBs and their conservation.

*Output 1.3: Targeted awareness campaigns on MSB flyway issues designed and carried out*

50. National studies undertaken during the PDF-B highlighted the lack of awareness of threats facing MSBs and solutions to these among key sector groups, such as hunters, decision-makers and the general public. National partners will use the Flyway concept as a central element of awareness campaigns targeting the general public in order to build a constituency for change, decision makers within the key sectors, groups and communities around bottleneck sites with a direct role in the management or use of bottleneck sites.

51. Once the Flyway concept has been developed, awareness of it and the project's aims will be promoted at the national level by each of the BIRD LIFE INTERNATIONAL national partners involved. This will be complemented on the ground at three bottleneck sites (one each in Lebanon, Jordan, and Egypt) by subcontracting RARE[8] to undertake a Pride Campaign concentrating on the issues of hunting and trapping. A Pride campaign, RARE's flagship programme, focuses on turning a charismatic flagship species into a symbol of local pride, and through a combination of grassroots and mass-marketing techniques generates broad-based support for ecosystem protection on a regional or national level.

**Outcome 2: Increased national and regional capacity to effect double mainstreaming and application of flyway concept**

52. The second component will target the "agents of change" in seeking to overcome the barrier of bringing about sectoral change. Nationally-based activities will seek to facilitate mainstreaming by strengthening the capacity of key institutions and partners to address MSB issues and through increasing co-operation and co-ordination between stakeholders leading to two Outputs.

*Output 2.1: Capacity of national partners strengthened to develop and promote concept of Flyway, respond to new opportunities, and monitor content standards*

53. It is apparent from the PDF-B that not all national partners currently have the capacity to deliver high quality content consistently into reform and change management processes. It is critical that capacity is built to address this since the "double mainstreaming" approach will fail if the recipients of the flyway content question its technical standard or added value. Upholding the Flyway "brand" will be important – ensuring that content standards are maintained, creating content development methodologies, creating networks and opening up access to BIRD LIFE INTERNATIONAL best practice worldwide, and building BIRD LIFE INTERNATIONAL national partner capacity to identify new opportunities for providing content (i.e. flyway business development). In order to achieve this, the project will provide training, resources and support to national BIRD LIFE INTERNATIONAL partners through, or coordinated by, the RFF with support of outside consultancies as required, based on capacity needs assessments undertaken during the PDF-B and further refined at the inception stage. This training and support will focus on the means to (a) identify double mainstreaming opportunities, (b) conclude successful

[8] RARE is a conservation charity founded 30 years ago whose mission is to protect wildlands of globally significant biodiversity by enabling local people to benefit from their preservation. RARE's approach is based on the recognition that people are the key to lasting change. Since 1988, RARE's partnerships with leading NGOs, e.g. The Nature Conservancy and Conservation International, have led to 66 successful projects in ecologically significant regions around the world.

negotiations to include MSB issues into such vehicles, and (c) produce and deliver the technical content necessary to achieve effective double mainstreaming.

54. BIRD LIFE INTERNATIONAL will ensure the technical quality of the targeted and tailored content developed for the six pre-identified demonstration in Tranche I. This will be ensured through expert input, application of BIRD LIFE INTERNATIONAL best practice, and peer review of content using the technical expertise from its world wide networks. Two regional workshops (Middle East and Africa) will be held on the mainstreaming "flyway friendly" practices, standards and methodologies, key sectors and identification of double mainstreaming opportunities, negotiating sector entry, and producing and delivering technical content to ensure national partners function as effective "agents of change". Key individuals in project partners will also receive training and support in the following: effective communication and awareness-raising; advocacy and negotiation; marketing and business development; networking and partnership building; and project management and financial administration. Building partner capacity will draw on the lessons learned from the UNDP-GEF/BirdLife African NGO-Government Partnerships for Sustainable Biodiversity Action Project to develop the most effective modalities for building partner capacities. [Hazell/Ibrahim to input into this section – current capacity, what is needed to deliver the project and what are the best tools to do this]

55. A National Project Manager will be appointed to manage project activities in those countries with vehicles during Tranche I (Lebanon, Jordan, Djibouti and Egypt), with support from a secretary/assistant and support from the Project Officers of the RFF as needed. All partners will receive financial resources during Tranche I to identify and develop links to promote mainstreaming of MSB concerns into both the public and the private sector, e.g. to give presentations at trade fairs and business seminars, briefings to government-led committees, work with ministries on policy and planning reviews.

*Output 2.2: Capacity of national government and private sector institutions strengthened to promote "flyway friendly" practices*

56. The capacity of recipients to be able to deliver MSB content through their vehicles will also need to be built through additional training and support. A full capacity needs assessment for each vehicle will be undertaken upon agreement between the project and vehicle task manager. Key individuals within the project vehicle will be identified for training along with the resources needed to deliver project content into the vehicle.

57. At a national level, training seminars on MSB issues, including information on sensitive sites and sector impacts, relevant sector legislation, the double mainstreaming process, integrating MSB concerns into EIA and economic opportunities associated with MSBs, along with manuals and other training literature, will be offered to relevant government and private sector institutions.

58. The project will also support national efforts to positively promote MSBs and the flyway. For example, efforts to include bird-watching at bottleneck sites in eco-tourism strategies and eco-tour packages. These efforts will be consistent with the flyway "brand" created under output 1.1 so that the eco-tourism initiatives positively reinforce the project's awareness raising efforts. They will also contribute to the lifting of the sector change barrier by emphasising the potential benefits from making the flyway safer. The project will also identify and test other incentive mechanisms for "flyway friendly" alternative practices.

**Outcome 3: Content and tools to enhance flyway friendly practice developed, delivered, and mainstreamed effectively into sector processes and programmes**

59. Regional and nationally-based activities will provide high quality technical materials to be integrated into existing vehicles of change management (reform processes, institutional and sectoral strengthening processes) to achieve the desired changes leading to a single Output.

*Output 3.1: Technical content developed and integrated into appropriate reform vehicles*

60. The provision of content is at the heart of delivering double mainstreaming – the application of BirdLife-developed information concerning MSBs into existing vehicles of reform, i.e. other projects and initiatives already developed for the productive sector in question. This approach has two significant advantages. First, it overcomes the barriers associated with sector entry since the existing vehicle of reform will already operate within the sector. Second, it is an extremely cost-effective method of achieving the necessary changes since a double mainstreaming project will be co-financed by the existing reform vehicle and there will be a much reduced need for independent project management and implementation structures thereby making significant savings.

61. There are numerous ways that MSB content may be added to programmes, such as: additional analysis of MSB impacts when EIAs and SEAs are being undertaken; provision of information to decision-makers on cause-effect relationships between sector actions and MSB impacts; identification of specific and targeted policy opportunities; development of innovative incentive mechanisms; additions to training manuals, courses, workshops, and guidelines; additional complementary workplan activities, particularly at the site level; and complementary demonstration activities, some of which will take place at bottleneck sites. The content will be tailored to the needs and circumstances of the partnership. Although the details of the first 6 practical examples of "double mainstreaming" will be set out in service agreements to be finalised before CEO endorsement, a summary of the technical content, costs and co-financing is provided in Annex 11.

62. Partnerships with these vehicles will pave the way for future cooperation not only with the concerned Government or NGOs implementing the project, but also with the donors funding these vehicles. UNDP programmes will also be targeted as good vehicles, since they will have easy access through UNDP country offices (CO), operate the same financial systems, and have the additional advantage that the transaction costs involved in UNDP facilitating the mainstreaming of MSB content into its programmes could be paid by a transfer of funds from the project through the UNDP CO.

**Outcome 4: Learning, evaluation and adaptive management increased**

Management procedures adopted at all levels of the project will lead to three Outputs.

*Output 4.1: Project management structure established*

63. The Project Management Unit/Regional Flyway Facility office will be established in Amman, Jordan. Project staff will be recruited with the senior positions advertised internationally.

*Output 4.2: Project monitoring, evaluation, reporting, and dissemination systems and structures established and operational*

64. Project progress will be monitored according to the Monitoring and Evaluation Plan (see Part 4) with an adaptive management framework feeding monitoring results and risk reviews back into the Workplan (Annex 3) and Logframe (Annex 1). This is especially important for the activities associated with double mainstreaming where progress is in part dependent on how well the project vehicle itself is progressing. Progression to Tranche 2 (inclusion of the other partner countries and expansion into new vehicles and sectors) will be dependent on meeting predefined triggers.

*Output 4.3: Establishment of appropriate monitoring schemes to assess impact of mainstreaming interventions, strengthen impact indicators, and assess other potential target sectors*

65. Monitoring schemes and field research will be established to assess the impact of the mainstreaming interventions. This will include the collection of outstanding data at the start of the project or during Year 1 to provide a baseline for project impact assessment (see Logframe in Annex 1). A system of data gathering will also be established as part of the project's adaptive management framework to ensure the routine measurement of progress towards the impact indicators.

66. The degree of threat to MSBs from activities in some sectors, such oil pollution and contamination, identified during problem analysis workshops conducted during PDFB could not be fully established and will therefore form an area for further investigation during Tranche I. If activities in sectors other than hunting, energy, agriculture and waste management are found to pose a significant threat to MSBs these will be targets for action during Tranche 2.

### 2.3 POLICY CONFORMITY

67. The project's focus on addressing barriers in key production sectors to the uptake of measures for the conservation of MSBs along the Rift Valley/Red Sea flyway is consistent with GEF Operational Programme 1 on Arid and Semi-arid Zone Ecosystems, and Operational Programme 2 on Coastal, Marine, and Freshwater Ecosystems – the two main groupings of ecosystems present along the flyway. The project's objectives and activities have been designed to conform fully to GEF's Strategic Priority BD2 – *Mainstreaming Biodiversity in Production Landscapes and Sectors* – by mainstreaming conservation management actions specifically for MSBs into key productive sectors – hunting, agriculture, energy, and waste management – within the 11 countries along the flyway, to make this route safer for soaring birds. In doing so, it has adopted the guidance provided by the *UNDP-GEF Biodiversity Advisory Note on GEF Biodiversity Strategic* Priority 2 issued on 9 March 2005 by mainstreaming within a distinct geographical area (the Rift Valley/Red Sea flyway) as well as specific sectors, and incorporated the design elements included therein, thus: (i) strengthening sectoral policies and policy making capacities to take account of biodiversity; (ii) integrating biodiversity conservation objectives into sectoral and spatial planning systems; (iii) building broad-based awareness in the production sectors of the relationship between biodiversity and sector performance; (iv) promoting and adopting "flyway friendly" practice in different productive sectors through

partnerships, technical assistance, and demonstration activities; and (v) reforming supply chains to better take account of biodiversity friendly production practices (e.g. certification schemes). The project has built on the concept that mainstreaming is a process, hence, its design stresses its catalytic function in transforming systems primarily through raising awareness and altering social and cultural behaviours among target groups in the key sectors, as well as the general public – by increasing national and regional capacity to achieve the required changes; and by developing and delivering the tools necessary to enhance flyway-friendly practices. The GEF Secretariat Information Paper on "Strategic Priorities in the Biodiversity Focal Area" dated March 20039 states that: "Given the broad character of mainstreaming, the operational emphasis will be flexible to allow for the development of tailored activities based on understanding of country context, biodiversity conservation problems, opportunities and demand." The project has been designed to take full cognizance of this need for operational flexibility, not least because of the wide range of vehicles and country contexts that will be encountered in double mainstreaming activities.

### 2.4 PROJECT INDICATORS, RISKS AND ASSUMPTIONS

**Risks and Mitigation**

68. The main project risks and their significance, as well as the ways in which the project aims to mitigate these risks are outlined in Table 1 below.

**Table 1: Risks to the GEF Project, their Rating and Mitigation Measures**

| Risk | Rating* | Risk Mitigation Measure |
|---|---|---|
| Existing reform vehicles do not accept, or choose not to implement, MSB technical content. | M | Vehicles will be targeted carefully so that MSB technical content complements their own work and contributes to their objectives. Input will be tailored to their needs, following their formats and procedures and they will receive world-class technical input *pro bono*. BirdLife can also provide existing relationships with many stakeholders, access to local communities, NGO "credibility", etc.. Added value of the content will be highlighted. |
| Recipients of flyway content question technical standard or added value of content provided by project because project is testing a new approach (double mainstreaming) | M | The project will ensure the technical quality of the targeted and tailored content by: strengthening national partners in the areas of professional service, business management, partnership building, etc; having the Regional Flyway Facility providing quality control on technical content with additional expert input, application of BirdLife best practice, and peer review of content using the technical expertise from its world wide networks; and, establishing capacity benchmarks before moving to Tranche III |
| Government contributions (finances, counterpart staff) and co-financing contributions are not forthcoming in a timely manner. | M | The Project assumes a six-month start-up phase (3 months hiring and 3 months inception periods) to bring all staff, partners, governments and co-financiers on board. Co-financing commitments with reform vehicles will be detailed and confirmed before CEO endorsement as part of a service contract between the project and vehicle donor. Co-financing will be confirmed once specific negotiations have taken place between BirdLife, UNDP-COs and the Project Donors as to the nature of technical content they are able willing to receive. Additional co-financing commitments, e.g. for the Flyway Facility will be confirmed prior to and as a pre-condition for commencement of Tranche II of the project. |
| Amendments to legislation and regulations modifications are not officially approved or enacted in a timely fashion. | M | The double mainstreaming approach, with MSB activities set within existing mainstreaming projects and processes, is likely to facilitate and speed the adoption of measures to better protect MSBs through the greater influence and lobbying capabilities of the two sets of partners (this project and the mainstreaming vehicle). |
| Regional projects frequently | L | The successful completion of the PDF-A and PDF-B against severe |

[9] "Emerging Directions in Biodiversity Under GEF 3: Information Document for the May 2003 GEF Council", GEF Secretariat, 25 March 2003.

| Risk | Rating* | Risk Mitigation Measure |
|---|---|---|
| consist of countries with different priorities and degrees of interest, which can make project management and administration difficult and progress slow. The current project is particularly ambitious given it comprises 11 countries spanning two regions with differing cultures and at different stages of social, economic and scientific development. Consequently there is a risk that some countries may not be able to deliver on project activities. | | constraints and deadlines demonstrates that the countries along the flyway are willing and able to work together and that the political will to implement the full project exists. However, during the PDF-B phase capacity issues were identified as a limitation to full project implementation in some countries. This will be addressed through a phased approach with project partners in Djibouti, Egypt, Jordan and Lebanon undertaking the full suite of activities during Tranche I, while the other project partners (and relevant collaborating institutions) in Eritrea, Ethiopia, Palestine, Saudi Arabia, Sudan, Syria, and Yemen will undergo capacity building to enable them to participate fully and effectively during Tranche II. Many of the project partners – in Egypt, Ethiopia, Jordan, Lebanon, Palestine, Saudi Arabia, Sudan and Yemen – are BirdLife Partners within the Middle Eastern or African Partnerships and therefore have experience of working together on large regional or global projects. |
| There is significant difficulty in being able to demonstrate biological impacts in breeding and wintering grounds as a result of the project interventions because the flyway is an open system subject to greater external influences than are inherent in the flyway itself – namely breeding success and wintering mortality | L | The project has no alternative but to accept this as a likely outcome. The current monitoring techniques lack the sensitivity to identify the results of project interventions at a population level, but the monitoring system will do its best to come up with meaningful indicators. Quantifiable indicators for threat reduction and mainstreaming will be determined and achieved instead. |
| The pool of educated English-speaking government, NGO and private sector staff is limited in many of the 11 countries, where Arabic or French are the predominate languages. The project may have difficulty recruiting sufficiently experienced, multi-lingual personnel as project staff in some countries. | L | During the first two years the project will train native-speaking trainers to provide the capacity building inputs so as to reduce this risk as far as possible.<br>BirdLife has an extensive network of contacts in the region that it can draw upon to help identify suitable project staff in countries where recruitment may be a problem. |
| Markets for "flyway-friendly" services and products are too small to be sustainable and/or do not develop sufficiently within the timeframe of the project to sustain interest or are affected by a global economic downturn. | L | Eco-friendly products and services are still a relatively small but rapidly growing component of the world economy and recent market analyses suggest this is set to continue (recently put at 6.5%/year for tourism as a whole with some estimates putting "nature tourism" at 40-60% of all international tourists). During the first phase of the project, financial and technical resources will be allocated to identifying markets, building capacity of producer groups and relevant stakeholders, and promoting "flyway-friendly" services and projects nationally, regionally and internationally, to address this issue. The project will promote bird-watching at the bottleneck sites (within carrying capacity), and thereby ecotourism generally to the region, through the BirdLife network and partnerships with the private sector and local NGOs, and link the certification of "flyway-friendly" products with other certification systems and eco-friendly markets. |

** Risk rating – H (High Risk), S (Substantial Risk), M (Modest Risk), and L (Low Risk).*

### 2.5 EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

69. The project will realise a number of environmental benefits. At the global level, these will involve safeguarding MSBs including six globally-threatened and three near-threatened species during their migration across the Middle East and along the Red Sea. Significantly lowered mortality of these species, during an already arduous journey will provide the last link in the chain of protection covering their annual cycle and help maintain their populations in both their European

breeding grounds where they are aesthetically highly valued by people (e.g. storks breeding on houses) and in their African wintering grounds where they prove to be one of the attractions for a commercially highly valuable eco-tourist industry. National environmental benefits will accrue through increased awareness at all levels of a major natural system running through each participant country with knock-on effects for wider conservation issues in each country and increased cooperation between neighbouring states. The main benefits at the national and local level would be an increased protection for certain important sites, as well as strengthening of the conservation ethic within government legislative, policy and economic machinery.In addition, the main benefits can be an enhanced institutional mechanisms for collaboration between sectors and institutions for dealing with environmental problems e.g. Government, NGOs and the Private Sector. This is seriously weak in all the African countries concerned and would be a major national boost, an institutionalization of environmentally friendly practices that would "spill-over" into other sectors and practices, safeguarding of key agricultural habitats and wetland sites for example by helping to minimize the use of pesticides and herbicides. This is a major problem at some key sites e.g Egypt. This is in turn would safeguard food production systems and fresh water fisheries (local and national benefit), enhanced access to national decision making processes for local communities, capacity development for institutions and individuals that would again "spill-over" to other sectors and probably enhance efficiency of key institutions and potential benefit in terms of income to individuals and whole regions through ecotourism.

70. Local environmental benefits include safe-guarding of key agricultural habitats and wetland sites, for example by helping to minimize the use of pesticides and herbicides. This is a major problem at some key sites e.g. in Egypt. This in turn would safeguard food production systems and fresh water fisheries (local and national benefit). National-level institutionalization of environmentally friendly practices would also "spill-over" into other sectors and practices benefiting local environments. The potential economic benefits from ecotourism, noted above, would profit local people throughout the flyway, and especially at sites of MSB concentration. Enhancing biodiversity-development linkages in this way helps reinforce local incentives for conservation measures. In addition to these direct environmental benefits, the project will provide enhanced institutional mechanisms for collaboration between sectors and institutions for dealing with environmental problems e.g. Government, NGOs and the Private sector. This is seriously weak in many of the countries concerned and would be a major national benefit. Enhanced access to national decision making processes for local communities through project structures and processes (e.g. EIA) will be a further local benefit, helping to ensure that developments reflect local environmental concerns.

### 2.6 COUNTRY ELIGIBILITY AND DRIVENNESS

**GEF Eligibility**

71. The following countries ratified the *Convention on Biological Diversity* (CBD) on the dates given and are eligible for technical assistance from UNDP – Djibouti on 1 September 1994; Egypt on 2 June 1994; Ethiopia on 5 April 1994; Jordan on 12 November 1993; Lebanon on 15 December 1994; Syria on 4 January 1996; Sudan on 30 October 1995; Yemen on 21 February 1996; while Eritrea acceded to the CBD on 21 March 1996 and Saudi Arabia acceded on 3 October 2001. Under paragraph 9 (b) of the Instrument and according to GEF-CEO letter of 2 August 1996 to GEF Executive Council Members, the Palestinian Authority is eligible for GEF financing through regional or global projects.

**Country Drivenness**

72. Migratory birds are recognised as key priorities in biodiversity conservation by governments and other stakeholders in the region. Nine of the 11 project countries have National Biodiversity Strategy and Action Plans (NBSAPs) and/or National Environmental Action Plans (NEAPs) with biodiversity elements relevant to the conservation of MSBs. Some make specific reference or include Action Plans relating to migratory birds (e.g. Egypt), species at risk outside protected areas (Jordan) or habitats used by MSBs including protected areas, Important Bird Areas and bottleneck sites (Egypt, Ethiopia, Syria). Some national conservation policies (e.g. Jordan Parks Policy, Ethiopia Wildlife Policy) pay specific attention to the conservation needs of migrants or the creation and protection of habitat corridors along which species can migrate and several countries have afforestation/ reforestation policies (e.g. Eritrea, Jordan) or coastal/ marine strategies (Jordan, Lebanon, Saudi Arabia, Yemen) incorporating species or habitat conservation measures at bottleneck sites and other key areas on the migratory flyway. Of the 23 bottleneck sites along the flyway, identified by the project, 11 have some level of protection and 12 are unprotected (see Annex 7). Despite their priority status, there is a general lack of awareness of the impacts of productive sectors on MSBs and their conservation needs among sector players, although this has been recognised by some governments, NGOs and other stakeholders (e.g. Syrian Education Ministry commitment made at PDF-B stakeholders' meeting to introduce MSBs concerns into the curriculum review process). Eight project countries have ratified either or both the CMS[10] and AEWA[11], which commit the Parties to action to conserve migratory

[10] UN ("Bonn") Convention on the Conservation of Migratory Species of Wild Animals
[11] African-Eurasian Waterbird Agreement (under CMS)

species and their habitats, including concerted action between Range States. AEWA specifically covers several MSBs (storks, pelicans, cranes) and Resolution 7.5 of the 7th COP[12] of the CMS details potential negative impacts of wind turbines on migratory birds and calls on Parties to take action (identifying areas where migrant birds are vulnerable, strengthening impact assessments).

73. In addition, the project is consistent with three articles of the Convention on Biological Diversity (CBD) and guidance provided by recent Conferences of the Parties (COPs) of the CBD. Article 6 (b) of the CBD calls on Contracting Parties to 'integrate, as far as possible and as appropriate, the conservation and sustainable use of biodiversity into relevant sectoral or cross-sectoral plans, programmes and policies. In Decision VI/21, the COP of the CBD further adopted an annexed contribution to the World Summit on Sustainable Development in which it 'urged Member States and all relevant stakeholders to make further efforts to incorporate and mainstream the objectives of the Convention into relevant national sectoral or cross-sectoral plans, programmes and policies and to recall that the conservation and sustainable use of biodiversity is a cross-cutting issue.

74. The project also addresses Article 14 of the CBD on 'Impact Assessment and Minimising Adverse Impacts on Biodiversity' as well as Article 22 which deals with the 'Relationship with other International Conventions'. In Decision VI/7, the CBD COP approved the guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or processes and urged Parties, other Governments and organisations to apply the guidelines. The guidelines recommend that EIA procedures should refer to the policy documents of other biodiversity-related Conventions among which, the Convention on Migratory Species was specifically mentioned.

75. Similarly, Decision VI/20 of the CBD Conference of the Parties endorsed a joint work programme between the CBD and the CMS and recognized that the conservation and sustainable use of migratory species need to be undertaken in their migratory range and through cooperative action. Further it invited the CBD Secretariat to generate guidance for the integration of migratory species into the national biodiversity strategies and action plans. The joint work programme (Document UNEP/CBD/COP/6/INF/15 of 14 March 2002) details specific activities to be carried out jointly by the CBD and the CMS covering several areas relevant to this project which include; biodiversity of dry and sub-humid lands, ecosystem approach, indicators, identification and assessment and monitoring of biodiversity, impact assessment and minimising adverse impacts, public education and awareness, sustainable use of biodiversity and sustainable tourism, and national strategies, plans and policies. One of the specific activities listed in the work programme is the inclusion of migratory species considerations in the guidelines for the integration of biodiversity considerations in impact assessment procedures.

76. NGO interest in MSBs conservation in the region is strong and increasing. In most countries, this is led by national NGOs or institutions that are BirdLife Partners, and both the Middle East and African Regional Programmes of the BirdLife Partnership (both 2004-2008) highlight mainstreaming of migratory bird conservation into policies and legislation, monitoring of traded and migratory species and the need to work with national governments to conserve bird migration flyways. Stakeholder input in the PDF-B project stage has been wide-ranging, with representation and feedback from ministries and other government agencies across all relevant sectors (environment, agriculture, hunting, waste management, energy, tourism, education, sustainable development and others), universities, the private sector, and NGOs. Key stakeholders were represented at the two Project Steering Committee meetings held during the PDF-B phase and have been involved with design of the Full Project proposal (See Institutional Framework, Stakeholder Analysis and Stakeholder Implementation Plan).

### 2.7 LINKAGES WITH UNDP COUNTRY PROGRAMME

77. The project is consistent with UNDP's framework cooperative strategy in the participating countries, aimed at enhancing national-local capacity and human resource development to achieve environmental protection and sustainable human development. This includes poverty eradication, pro-poor policies, governance, sustainable livelihoods, empowerment of women, and protection and regeneration of the environment. By demonstrating double mainstreaming opportunities within UNDP Country Programmes (such as the UNDP Environmental Legislation project in Lebanon), the project will be not only creating direct links between national development processes and global environmental benefits, it will also be building direct links between UNDP core commitments and GEF financing. It is expected that this demonstration will be replicated across more UNDP Country Offices in Tranche 2.

78. The project will also coordinate with UNDP's Regional Programme for the Arab States, 2006-2009. The environmental focus of the Regional Programme is water governance and there will be opportunities to contribute MSB

[12] 7th Meeting of the Conference of the Parties to the CMS, Bonn, 18-24 September 2002

considerations into UNDP's water governance work in the region. UNDP also supports the Mediterranean Environmental Technical Assistance Program (METAP), which has been identified as one of a number of potential double mainstreaming "vehicles" and initial discussions held.

### 2.8 LINKAGES WITH GEF-FINANCED PROJECTS

79. The current proposal builds on the lessons and experiences of a number of important GEF-funded projects in the region. These lessons will continue to be applied during project implementation and the RFF team will be provided copies of the evaluation reports during the Inception Phase. In particular, evaluation results have been studied from the following projects:

- **African NGO-Government Partnerships for Sustainable Biodiversity Action – UNDP/BirdLife 1997-2003:** This project aims at enhancing biodiversity conservation in Africa through local and national NGO-government partnerships in the Important Bird Areas Process. Using birds as biodiversity indicators, national teams identify sites, known as IBA, agree on priorities for action and advocate and monitor their conservation. Regional coordination among the 10 African countries and sharing of skills will be enhanced, and the institutional base and sustainability consolidated to permit the expansion and replication of the process.
- **Conservation of Wetlands and Coastal Ecosystems in the Mediterranean Region (MedWetCoast) – UNDP/ GEF 1999-2004:** This project aims at conserving globally significant flora and fauna in key wetland habitats along the Mediterranean shorelines of six countries, Albania, Egypt, Lebanon, Morocco, Palestine Authority, and Tunisia. In Lebanon, the project has worked at the Ammiq wetlands site in the Bekka Valley, one of the most important wetlands along the flyway (see the Data Sheet for Ammiq in Jordan, Annex 7).
- **Socotra Conservation and Sustainable Use Project, Yemen - UNDP/GEF 1996-2001:** This project was instrumental in providing participatory examples in sustainable management and development of natural resources. It has successfully developed conservation development plans and strategies and completed baseline ecological inventories related to all components of biological diversity including the ecosystem of the archipelago. A second phase MSP project is aimed at enhancing protected area management capacity in a demonstrative nature protectorate of the island.
- **Dana Azraq Project – UNDP/GEF 1993-1996; 1996-1998:** This project is one of the pioneer GEF projects that have addressed nature conservation in the context of protected area management, building on sustainable use and management of biological resources. Good practices in reserve management, income generation, legislation enforcement, learning and awareness raising, and networking could be transferred from this pioneer project to be applied in the context of the proposed initiative. Similar to this project also is the **Lebanon Protected Area project,** which provided a good example of national NGOs-academic-governmental and private partnership directed at conservation and sustainable management of biological diversity in three protected areas: Arz-Ashouf, Palm islands, and Horsh Ehdain.
- **Implementation of the Strategic Action Program (SAP) for the Red Sea and Gulf of Aden (Red Sea SAP) – UNDP/UNEP-IBRD/GEF 1997-Ongoing:** Participating countries are: Djibouti, Jordan, Saudi Arabia, Egypt, Somalia, Sudan and Yemen. The project will develop and implement a Strategic Action Program and regional conservation plans for key marine species and coastal habitats including coral reefs, seagrasses and mangroves. The region's capacity in habitat assessment, monitoring and management will be strengthened. A regional network of marine protected areas will be established for effective and efficient management of protected areas and to ensure exchange of experience among countries of the region.
- **Egypt-Red Sea Coastal and Marine Resources Management – World Bank/GEF 1995-2000:** The project was initiated to assist in ICZM, EIA and Coastal and Marine Protected Areas (CMPA) capacity building. It initiated effective conservation mechanisms to maintain a healthy and ecologically functioning status of significant biodiversity for coastal and marine ecosystems along the Red Sea shorelines, with emphasis on coral reefs, mangroves, sea-grasses and wadis.

80. In addition, links have been established with the following on-going GEF projects during the PDF-B (including participation in PDF-B Steering Committee meetings, sharing of information and validating scientific data):

- **Enhancing Conservation of the Critical Network of Wetlands Required by Migratory Waterbirds on the African/Eurasian Flyways – GEF/Wetlands International 2005-ongoing:** The project works in 10 countries in Europe-Asia and Africa to support the improvement of conservation status of African/Eurasian migratory waterbirds, by enhancing and coordinating the measures taken by countries to conserve the critical network of wetland areas that birds require to complete their annual cycle.

- **Integrated Ecosystem Management in the Jordan Rift Valley Project – GEF/World Bank:** PDF signed in 2002, Expected to startt June 2006, four stages with five years duration: The five components for the project have been endorsed by the PSC, including the: Integrated Ecosystem Management (IEM) Component; Community Development Component; New Nature Reserves (4 + plus improvements at Mujib NR) Component; Capacity Development Component; and the Conservation Finance Component. The project will be designed to focus on the **mainstreaming of biodiversity** and nature conservation activities into integrated ecosystem management (including land-use planning) processes. A complementary program of **community development** and job creation related to nature conservation (with poverty alleviation benefits) will be included as a second principal component of the mainstreaming activity. IEM and biodiversity conservation mainstreaming will be undertaken at three levels including: National policy and regulatory reform, Institutional reform, agency by agency and Local demonstration projects in IEM pilot areas. There will be seven IEM demonstration sites along the area. The project will address the combined **Capacity Development** needs and will address a long-term program for **Conservation Finance** focusing on the sustainability of the new Nature Reserves and related nature-based business developments in the Jordan Rift Valley. The GEF core budget will provide for a modest Community Development Fund and a modest Enterprise Development Fund.

- **Development of a Wetland Site and Flyway Network for the Conservation of the Siberian Crane and other Migratory Waterbirds in Asia - UNEP/GEF Project GF 2712-03-4627**. The project aims to improve the ecological integrity of a network of globally important wetlands that are of critical importance for migratory waterbirds and other wetland biodiversity, using the globally threatened Siberian Crane as a flagship for this effort. The project works at three main levels: addressing threats to the sixteen selected project sites through a wide range of activities aiming to strengthen protection and improve management capacity; national level activities in support of wetland and waterbird conservation that will strengthen site protection; and international activities to develop wetland site networks along the concerned flyways and build capacity for coordination of flyway level activities. The project focuses on flyways in Western/Central Asia (Russia, Kazakhstan, Iran) and East Asia (Russia and China), through the participation the governments of these four countries (National Executing Agencies) under the overall coordination of the International Crane Foundation (International Executing Agency) in cooperation with the Convention on Migratory Species.

### 2.9 SUSTAINABILITY

81. As indicated above, this project has built on the concept that mainstreaming is a process, hence, its design stresses its catalytic function in transforming systems primarily through raising awareness and altering social and cultural behaviours. The innovative technique of double mainstreaming is believed to offer a greater reach and deeper penetration into the key sectors than a traditional approach that looks to "inject" mainstreaming messages from outside the sectors, as a result its chances of producing enduring change are envisaged to be much higher. Since the ultimate reach of the technique will in part be determined by the reform vehicles that it is able to partner, determining how far the mainstreaming process will go is difficult to determine. However, as the Biodiversity Advisory Note[13] states, "*a project may launch a mainstreaming process but does not need to conclude it*" but the changes brought about by the project are intended to be permanent and irreversible as successful mainstreaming requires.

82. Environmental sustainability: will be achieved by:

a) *Mainstreaming "flyway friendly" practices* – Traditional bird conservation initiatives that focus on injecting large interventions into small sites have often faced sustainability crises. By taking a mainstreaming approach the immediate ecological returns may be less (i.e. the aim is to modify people's behaviour, not eliminate it), but the chances of sustainability are higher. If people understand why they should modify their behaviour and the value of making the change, there is, prima facie, no reason to suggest they should revert once the project ends.

b) *Monitoring of impact indicators* – The impact indicators in the logframe have been designed to measure the project's environmental sustainability. regional programme for monitoring of key bottleneck sites will provide a mechanism to check and verify the ecological status of individual sites along the flyway and allow information to be fed back to governments, NGOs, conventions and other relevant agencies so that appropriate action can be taken quickly.

83. Social sustainability: will be achieved by:

a) *Local and national participation* – The project will enhance participation of local stakeholders, the private sector and NGOs in conservation programmes. It has been designed using a collaborative approach,

[13] *UNDP-GEF Biodiversity Advisory Note on GEF Biodiversity Strategic Priority 2* issued on 9 March 2005.

involving consultations with a wide range of NGOs, local and national government authorities, and local communities, as well as UNDP Country Office staff, to ensure that stakeholder interests and needs have been incorporated and to seek feedback on the emerging design. This participatory approach will continue through multi-stakeholder mechanisms.

b) *Empowering local communities* – Training in natural resource management and the development of markets for flyway friendly goods and services will bind stakeholders to sustainable and economically viable systems that will control actions not in their shared interest. The Stakeholder groups at the double mainstreaming vehicles' demonstration sites will be encouraged to participate in relevant workshops and events increasing their capacity to address the underlying causes of biodiversity loss in these areas. Training and participation will also allow local stakeholders to identify needs and then request and access resources from national sources.

c) *Building political will* – National, local and provincial government authorities and institutions will be involved from the start of the project in the capacity building and education activities which will increase awareness and experienced of the importance of MSBs and flyway friendly practices as factors in decision-making processes and help build political will in government institutions.

d) *Wide national constituency supporting soaring bird conservation* – The project's branding, marketing, certification and education and awareness-raising components will build local, national and regional constituencies that are aware of the issues and supportive of conserving MSBs, creating a favourable political and social environment for sustaining project processes.

84. Institutional sustainability: will be achieved by:

a) *Government commitment* – Most of the countries involved in the project have national policies and strategies containing elements of relevance to soaring bird conservation, e.g. NBSAPs, NEAPs (see Annex 8). By reviewing existing policy and legislation, and supporting efforts to fill 'gaps' where soaring bird conservation is concerned, the project will help to create policy frameworks that support soaring bird conservation after the end of the project.

b) *Use of existing structures* – Working through existing national and local structures and institutions and donor-funded programmes, for project execution, management and coordination, will help ensure institutional sustainability. Apart from the Flyway Facility, no new institutional structures will be created specifically for the project, but those already in existence will be strengthened. This will ensure that when the project ends, the structures (skills and experience) to continue project processes are still in place.

c) *Implementation by NGOs and CBOs* – The project will be implemented through a partnership between government, NGOs and CBOs, and private businesses (e.g. environmental consultancy groups, waste management companies and energy providers), with each organization carrying out activities for which their mandate and resources make them most suited. This will help to ensure the sustainability of project processes. In addition, working through NGOs and CBOs is a cost-effective way of achieving conservation because of the lower overheads usually associated with these types of organization, and engagement of the business community offers opportunities for raising awareness through customers and shareholders and potentially corporate sponsorship further embedding the project's message within national populations.

d) *Increased capacity of stakeholders* – The development of systemic and institutional capacities of governments, NGOs and other stakeholders, through a strong focus on training personnel (for research, planning, management, education), legislation and policy and building new partnerships between the public and private sectors, will help to secure biodiversity conservation in the long term. The engagement of key sector agencies will contribute to integration of bird friendly measures within broader development activities in the agriculture, energy, urban development and environmental sectors.

e) *Benefits of double mainstreaming* – The project's 'double mainstreaming' approach means that project activities at the national level will be carried out largely within existing or approved future donor-funded mainstreaming initiatives which are consequently already embedded within country driven development strategies and programmes, and allow for shared management, planning and costs, bringing added value to both initiatives.

f) *Sustainability of Flyway Facility* – The Project Management Unit (PMU) will become a certification body for "flyway friendly" services and products within BIRD LIFE INTERNATIONAL's Middle East Regional Office in Amman upon termination of the project, and is expected to be self-sustaining financially through charges for services to the private sector and government and donor-driven projects. The groundwork for

making the Facility financially sustainable will be laid during Tranche 1 and continued and developed further in Tranche 2 when it will be required to raise co-financing for its running costs from those project "vehicles" that it develops partnerships with – both in new countries and in additional sectors in those countries already featuring in Tranche 1. By the third phase (beyond the lifespan of this project) it will have become a viable commercial operation providing technical services and accreditation in return for fees.

g) *Continuing local community involvement* – The project will support community involvement in MSB planning and management to strengthen local conservation efforts and community livelihood activities, building upon existing initiatives and strengthen existing committees at the demonstration bottleneck sites wherever possible. A feasibility study will be undertaken in Tranche 1 to assess the possibility of mainstreaming MSB considerations into national GEF Small Grants Programmes along the flyway. For example, it may be possible to replicate the double mainstreaming approach for Small Grants awarded for communities living near bottleneck sites.

h) *Knowledge management* – The knowledge gained by the project will be shared with other practitioners working on MSBs conservation, environmental education and awareness, and eco-product promotion and certification (so encouraging replication), through provision of reports, training, best practice manuals, and access (via internet connection) to the project's Clearing House Mechanism.

85. Financial and economic sustainability: will be achieved by:

a) *Development of flyway friendly products and services* – The project will promote economic sustainability through the development and promotion of 'flyway friendly' services, products and incentives that are economically valuable, e.g. bird-oriented eco-tourism, organic food production, responsible hunting, which will be integrated into local livelihood systems through demonstration activities at key bottleneck sites. As these activities will be linked to (and in some cases dependent on) conservation of migrating soaring birds, local communities will promote the protection of these sites.

b) *Reduced costs through economies of scale* – As a largely capacity building, and awareness-raising and demonstration project, one-off costs will be incurred in testing ideas, undertaking training and developing tools and strategies. However, the focus on working with existing programmes and institutions, and across 11 countries many of which share languages and similar social and political conditions, will reduce the scale of recurring costs to finance MSB conservation and 'Flyway Friendly' activities, fostering financial sustainability.

c) *Involvement of private sector* – Although many of the countries along the flyway have a well-developed private sector, there is a poor awareness of the marketing advantages and advertising opportunities that corporate sponsorship of environmental programmes can bestow. The PDF-B has made initial investigations into private sector finance for MSB conservation in some countries as part of the sectoral reviews. Previous conservation programmes by some of the project partners, e.g. SPNL in Lebanon, have been successful in raising private sponsorship, particularly education and awareness raising projects, and this means of financing will be developed further by the Flyway Facility during the lifetime of the project.

d) *Building fund-raising capability of project partners for MSB projects* – The Flyway Facility will review the financial status, funding needs and opportunities for the project partners within the project, produce recommendations for improving fund-raising and financial allocation mechanisms and offer training and capacity building in sustainable financing for MSB conservation projects.

### 2.10 REPLICABILITY

86. Replication of the project approach is at the heart of the project strategy and design, and the replication strategy aims at ensuring that lessons learnt are distilled and actively disseminated to inform similar initiatives elsewhere. The project does not expect to achieve complete transformation throughout the region but looks to achieve direct, measurable and sustainable impact largely through existing programs (vehicles) to promote replication elsewhere.

87. The Project has been designed to integrate MSB issues into existing or planned mainstreaming programs in the target sectors (the 'double mainstreaming' approach). Six existing programs in Djibouti, Egypt, Jordan and Lebanon have been identified as project vehicles during Tranche I of the project. If successful, the project will target additional project vehicles in each of these countries as new vehicles develop and the project approach will be replicated in Eritrea, Ethiopia, Palestine, Saudi Arabia, Sudan, Syria and Yemen during Tranche II. Furthermore, mainstreaming vehicles in other sectors, e.g. transport, oil and gas production, will be targeted during Tranche II if field and monitoring studies planned for Phase I show that they pose a significant threat to MSBs along the flyway ('horizontal' mainstreaming). In addition, the project will

achieve 'vertical' mainstreaming by scaling up from demonstrations and other activities at bottleneck sites and trickling down from national policy level work.

88. If proved successful, the double mainstreaming approach will be directly applicable to other mainstreaming projects in other parts of the flyway to the north. As an example, a UNDP-GEF PDF-A in Bulgaria has already decided to apply the double mainstreaming approach to its flyway issues as a result of this proposal. Indeed, double-mainstreaming could provide a cost-effective model for integrating wider biodiversity concerns into productive and landscape sectors in many other regions of the world.

89. The project has a strong emphasis on raising awareness of the flyway concept and MSB issues among the general population of the region as well as communities around bottleneck sites and decision makers in the key sectors. This will help build constituency for addressing wider biodiversity conservation concerns at the political level. The awareness campaigns piloted in Jordan, Lebanon and Egypt during Tranche 1 will be replicated to other project countries during Tranche 2, and, given that they will be tailored to the region's cultural and social conditions, will be applicable to other parts of the Middle East or north-east Africa.

90. Similarly, the capacity building element of the project will support the replication of the project approaches and tools at other sites important for MSBs and use in other conservation projects. For instance, the positive focus on building capacity for sustainable ecotourism, specifically birdwatching, at key bottleneck sites during Tranche 1, will be replicated at other bottleneck sites during Tranche 2, if it can be shown to benefit local communities.

91. Specific products of the project will inform and guide the conservation of MSBs in other countries in the region and beyond through the transfer of knowledge and techniques. These include the Guidelines on Responsible Hunting and Code of Conduct for hunters that will provide an important resource for developing a response to illegal shooting of MSBs in the North African and Southern European countries where hunting has be shown to have a major impact on migrating bird populations. Lessons learned on the design and management of waste site, wind farms and powerlines will be similarly available to inform the design and operation of such structures in other countries along the Africa-Eurasia flyway important for MSBs, such as Spain, Morocco, Italy, Tunisia, Bulgaria and Turkey, particularly where developments are planned near bottleneck sites.

92. Key approaches to facilitate replication include knowledge transfer tools to support management and mainstreaming such as best practice guidelines, training manuals, presentations to the private sector, attendance of key staff at symposia at the local, national, regional and international levels, and a high quality project website. In addition, the development of a 'flyway friendly' labelling or certification system for hunting reserves, tour companies, agricultural produce, etc, in selected countries during Tranche 2, linked to market analysis, support and promotion, has considerable potential to be replicated in other countries in the region if it is shown to bring economic gains to local communities.

### 2.11 LESSONS LEARNED

93. The project builds on the lessons learnt during the implementation of the PDF-B and those derived from other national and regional conservation programmes (see Table 2). The project will use participatory and adaptive management processes to continue to integrate lessons gained through project implementation. The planning process will be linked closely with monitoring and evaluation, in order to ensure that the learning is integrated into project plans.

**Table 2 : Lessons Learned**

| Lesson | Design Feature |
|---|---|
| Mainstreaming projects have been shown to require long timeframes in order to build national constituency and ownership. It provides new challenges to traditional conservation projects. | A timeframe of ten years and two phases has been selected for project implementation. Emphasis has been placed upon collaborative approaches, multi-stakeholder decision-making, and coaching people as they undertake project activities themselves. "Branding" has also been suggested to facilitate mainstreaming. |
| Lack of capacity among some regional partners in the participating countries has caused delays in providing information and implementing national outputs in these countries. | The project will run in two Tranches. During the first Tranche double-mainstreaming activities will be implemented in those countries that have shown a strong mobilization of resources and capacity to deliver PDF-B outputs. In the remaining countries, capacity will be built to the levels required to |

| Lesson | Design Feature |
|---|---|
| | implement double mainstreaming during Tranche II. |
| The area covered by the project is vast and includes 11 countries. There was variability within these countries on priority sectors where intervention is targeted. | A regional consensus has been built on the sectors included. This has been largely influenced by availability of data and resources. |
| Threats to MSBs while they are migrating can be different to threats in their breeding or wintering grounds. Deeply held beliefs about what threatens MSBs during migration may not be supported by evidence. | The PDF-B spent consideration effort testing assumptions – even those held by recognised experts. The project has been design without relying on these assumptions and where uncertainty remains, further monitoring will be undertaken during project implementation |
| Bird data is incomplete and because of the difficulties in counting MSBs it is not useful for measuring project impact | The project will not waste money on expensive survey training and counting programmes. Alternative indicators have been developed that do not rely entirely on count figures. MSB identification training will focus on key actors within the productive sectors (hunters, wind-farm operators etc) |
| The participatory process and advocacy is not well-understood in all countries and for all partners. | Facilitation in the participatory process will be one of the skills desirable of PMU and managers and staff. Training will be given to those stakeholders or organisations requiring it. |

## PART 3 : Management Arrangements

### 3.1 IMPLEMENTATION ARRANGEMENTS

94. The proposed organisational arrangements for implementation of the project are illustrated in Figure 1. UNDP will be the GEF-implementing agency for the project, which will be executed by either an NGO or through UNDP Country Offices in each participating country, with BirdLife International (BLI) providing overall management and accountability through establishment of the Regional Flyway Facility to act as Project Management Unit. The national executing agencies will be the BirdLife national partner organisations (e.g. Royal Society for the Conservation of Nature in Jordan) or, where no BirdLife Partner exists or capacity is judged too low, another suitable national NGO or government institution, private contractor or BirdLife Regional Office (to be agreed at the inception stage).

95. The project will undertake three types of activity:

a) Regional activities (e.g. development and promotion of the Flyway concept) will be undertaken directly by the Regional Flyway Facility, with assistance from the national executing agencies as appropriate.

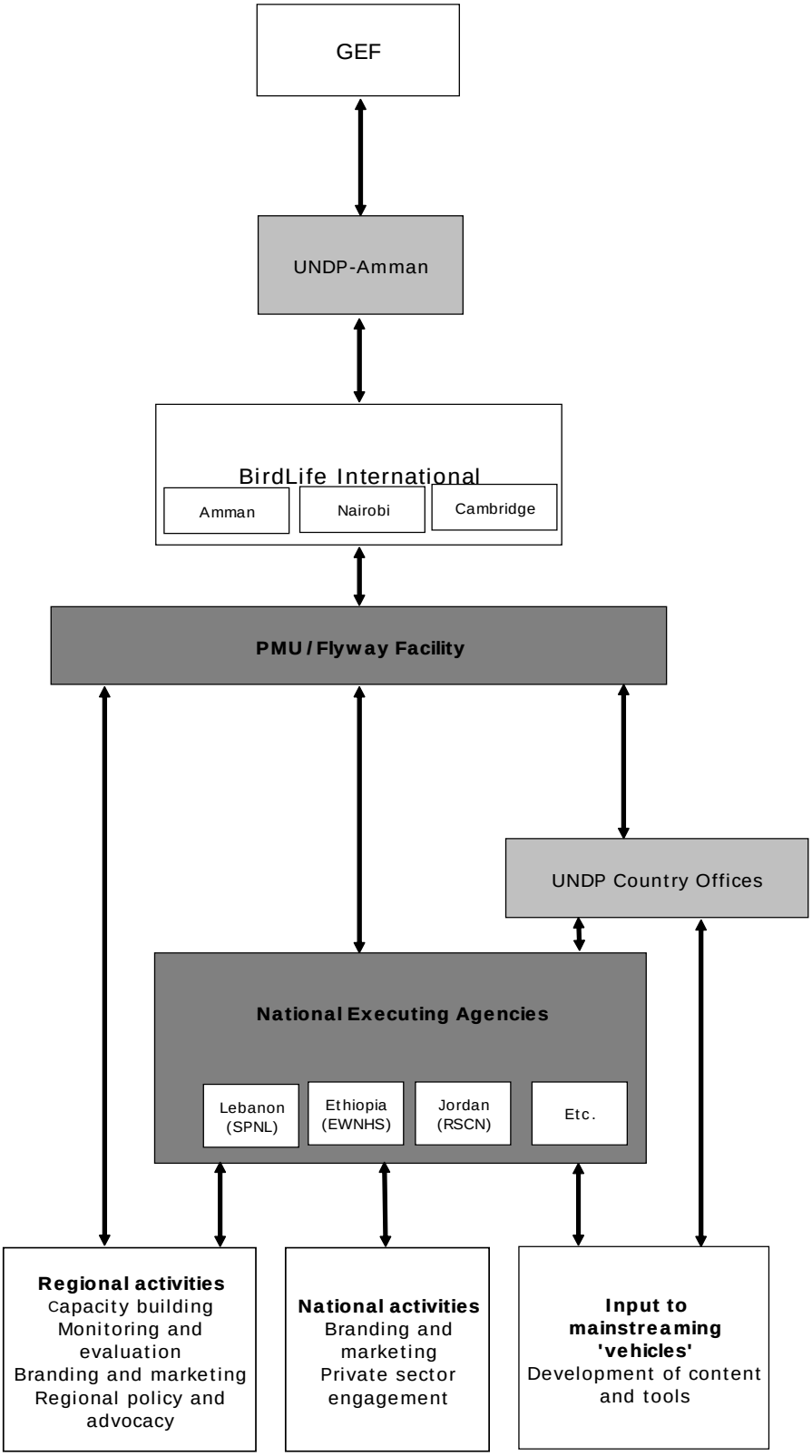
b) National activities directly through the vehicles (i.e. provision of technical content and services) will be undertaken by the national executing agencies working through the relevant UNDP-CO. There will be no direct contracting of the national executing organisations by these vehicles.

c) National activities remote from the vehicles (e.g. opportunities to mainstream MSB considerations directly into the national private sector) will be undertaken by the national executing agencies working with assistance from the Regional Flyway Facility.

96. The overall project will be executed through a Project Management Unit (PMU)/Regional Flyway Facility established by BIRD LIFE INTERNATIONAL in an office in Amman, Jordan, within the first three months of project commencement. It will host and operate the RFF (at least initially) ensuring standardisation of the Flyway concept and quality control of national project activities and products, including reports to UNDP. The PMU will be headed by a regional Project Director assisted by two project officers with appropriate technical skills and knowledge of the regions concerned and a small support team including a financial manager and secretary/receptionist, along with specialist consultants as needed. Each national executing organisation of countries with one or more "vehicles" in Tranche I will appoint a full-time Project Manager; the other national executing agencies will participate via contracts with the Regional Flyway Facility, which will cover human resources costs. Staff will be recruited within the first three months of project commencement. The Regional Flyway Facility will help to build the capacity of the national partners to enable all of them to participate in Tranche II at which time project partners will be expected to develop relationships with a wider range of stakeholders to achieve double mainstreaming. The RFF will primarily be managerially and administratively supported by

the BirdLife International Middle East office, also located in Amman, Jordan. Additional support will be provided through the regional offices of the BirdLife Secretariat in Cambridge and Nairobi. Through the BirdLife network there will be linkages to BirdLife Partner and Affiliate organisations in participating countries, providing a network for influence, exchange, support, capacity-development and knowledge management. Working in association with the BirdLife Partnership, the project officers will be expected to deliver most of the regional components of the project and to oversee initiation and coordination of the national-level activities.

**FIGURE 1 : ORGANISATION ARRANGEMENTS**



97. A Project Steering Committee (PSC) will be established and operate through the UNDP Tripartite Review process. The PSC will include national representation one representative from each of GEF-UNDP, UNDP-Jordan, BirdLife International, and other partners to be decided before CEO endorsement and finalised during the Inception Phase. The national representatives will provide national level input into strategic and project execution issues. Members will be formally appointed at the start of the project by the respective organisations and, as far as is possible, it is expected that they will be consistent throughout the life-time of the project. The PSC will advise and guide the project based on evaluation of progress and achievements reported from national executing organisations, project contractors, and consultants via the PMU.

98. Successful implementation of the proposed double-mainstreaming projects at national level will require close coordination between National Government and Local Government agencies, NGOs and the private sector. Within three months of project commencement, coordination mechanisms will be established in each relevant country. These mechanisms will be flexible in order to meet national project requirements, but will include as a minimum the UNDP-CO, the national partner/executing agency, and the GEF-OFP. The national coordination mechanisms will meet twice a year to review progress in national implementation (both substantive, managerial and financial). They shall be responsible for providing guidance and support to the national executing agency for timely, efficient and effective implementation.

99. The Project is provisionally scheduled to commence in the third quarter of 2006, and will have a five-year implementation period for Phase I, and five-year implementation period for Phase II. A detailed implementation schedule will be determined during the Inception Phase.

## PART 4 : Monitoring and Evaluation Plan and Budget

### 4.1 INTRODUCTION

100. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the PPRR with support from UNDP-GEF. The Logical Framework Matrix (Annex 1) provides *performance* and *impact* indicators for project implementation along with their corresponding *means of verification*. These will form the basis on which the project's Monitoring and Evaluation system will be built.

101. The following sections outline the principle components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

102. An important finding of the PDF-B phase was that data on MSBs disaggregated to their migration (as compared to breeding and wintering grounds) is poor and unreliable. Moreover, meaningfully quantifying the biological impact of the project's interventions on the migration path is virtually impossible, because the migration path is just one part of an open flyway system. There are many reasons why it is impossible to directly assess the biological impact of the project's intervention:

- Gains made by the project on the migration section of the flyway can be offset by threats in the breeding or wintering grounds.
- It is very difficult to attribute increases in population numbers to a particular intervention. Gains may be perceived to be a result of interventions on the migration path but may actually be due to good breeding seasons.
- Survey/count data is not sensitive enough to detect change attributable to any particular intervention.
- Count data is notoriously variable and even when available over long time periods (10 years) is useful only for predicting trends. This is due to:
    a. The extreme difficulty of counting MSB species passing over head at height (1,000-5,000 feet) and in large numbers.
    b. The variability from one counter to the next.
    c. The effect of time, weather and location on count data.
    d. The need for expert ability to identify MSBs accurately.

e. Flyway paths are not fully understood and MSBs do not always follow the same path.

- There is no time-series data of sufficient duration (it would need to be approx. 30 years) to screen out the variables statistically.

103. As a result, the project does not pretend to be able to measure any impact at the population level. Instead, at the objective level, it will focus on measures of reduction in threat. More important will be the actual measures of impact at the Outcome level, where we aim to measure the level of mainstreaming achieved by the intervention.

104. The proposal will work to better understand the threat levels during Tranche I. Ground-truthing will commence in the Inception Phase to develop baselines particularly in the hunting and energy sectors. Further investigation of threat levels in other sectors will also be undertaken. In some cases the lack of quantified data may suggest that established views even within the ornithological community must be questioned and tested.

### 4.2 MONITORING AND REPORTING

**Project Inception Phase**

105. The inception phase will take place during the first three months of project implementation. It is designed to:

- Full staff the project
- Ensure the project team (the executing agency, the project staff in the regional flyway facility and national partners) fully understands UNDP financial and administrative rules and requirements and the project has the necessary systems financial and reporting in place
- Ensure the project team fully understands the GEF measures of success and reporting requirements
- Detail and agree the project's workplan, adaptive management framework and monitoring indicators
- Finalise the project's implementation arrangements including the composition of the Steering Committee and National Committees, review their TORs, hold an inception workshop and first TPR

106. A Project Inception Workshop will be conducted with the full regional flyway facility team, relevant government counterparts, co-financing partners, UNDP Country Offices and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the UNDP-GEF *expanded team* which will support the project during its implementation, namely the PPRR, COs and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget re-phasings.

107. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

**Monitoring responsibilities and events**

108. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

109. *Day to day monitoring of implementation progress* will be the responsibility of the Project Coordinator, Director or CTA (depending on the established project structure) based on the project's Annual Work Plan and its indicators. The Regional Flyway Facility Team will inform the PPRR of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

110. The relevant UNDP Country Office will be responsible for monitoring the *double mainstreaming* service contracts in each country. This will include normal financial oversight (including audits), reporting and quality assurances.

111. The Project Coordinator and the Project GEF Technical Advisor will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team during the Inception Phase with support from UNDP Country Offices and assisted by the UNDP-GEF Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

112. *Periodic monitoring of implementation progress* will be undertaken by the PPRR and UNDP-COs through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

113. UNDP Country Offices and UNDP-GEF RCUs as appropriate, will conduct yearly visits to projects that have field sites, or more often based on an agreed upon scheduled to be detailed in the project's Inception Report / Annual Work Plan to assess first hand project progress. Any other member of the Steering Committee or National Committees may also accompany. A Field Visit Report will be prepared by the CO and circulated no less than one month after the visit to the project team, all SC members, and UNDP-GEF.

114. *Annual Monitoring* will occur through the ***Tripartite Review (TPR).*** This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the inception phase period. The TPR has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed during the Inception Phase, based on delivery rates, and qualitative assessments of achievements of outputs.

115. The project proponent will prepare an Annual Project Report (APR) and submit it to the PPRR and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments. The APR will be used as one of the basic documents for discussions in the TPR meeting. The project proponent will present the APR to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The project proponent also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. Efforts will be made to schedule subsequent TPRs so that the PIR format can also be used for the APR (see below).

**Terminal Tripartite Review (TTR)**

116. The terminal tripartite review is held in the last month of project operations. The project proponent is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF's Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The terminal tripartite review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation of formulation.

**Project Monitoring Reporting**

117. The Project Coordinator in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (f) are mandatory and

strictly related to monitoring, while (g) through (h) have a broader function and the frequency and nature is project specific to be defined throughout implementation.

*(a) Inception Report (IR)*

118. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP Country Offices or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.

119. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation. When finalized the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the PPRR and UNDP-GEF's Regional Coordinating Unit will review the document.

*(b) Annual Project Report (APR)*

120. The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self -assessment report by project management to the CO and provides input to the country office reporting process and the ROAR, as well as forming a key input to the Tripartite Project Review. One overall APR for the regional project will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work.

121. The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP, CAE and other expenditure reports (ERP generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

*(c) Project Implementation Review (PIR)*

122. The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, one overall regional Project Implementation Report must be completed by the PPRR together with the project. The PIR can be prepared any time during the year (July-June) and ideally prior to the TPR. The PIR should then be discussed in the TPR so that the result would be a PIR that has been agreed upon by the project, the executing agency, PPR and the concerned UNDP-GEF Regional Coordination Unit.

123. The GEF M&E Unit provides the scope and content of the PIR. In light of the similarities of both APR and PIR, UNDP/GEF has prepared a harmonized format for reference.

*(d) Quarterly Progress Reports*

124. Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team.

*(e) Periodic Thematic Reports*

125. As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

*(f) Project Terminal Report*

126. During the last three months prior to the independent Final Evaluation the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

*(g) Technical Reports (project specific- optional)*

127. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

*(h) Project Publications (project specific- optional)*

128. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget. UNDP and GEF logo policies will be respected for all project publications.

### 4.3 INDEPENDENT EVALUATION

129. The project will be subjected to at least two independent external evaluations as follows:-

**Mid-term Evaluation**

130. An independent Mid-Term Evaluation will be undertaken four years from the Inception Workshop. The Mid-Term Evaluation will determine progress being made towards the triggers for Tranche 2. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the last year of Tranche 1. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the PPRR based on guidance from the UNDP-GEF Regional Coordinating Unit. The independent evaluation team will be contracted directly by the PPRR. UNDP may call for independent adaptive management reviews at any time during the project.

**Final Evaluation**

131. An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting. The requirements of the Final Evaluation are set out in guidance provided by the independent GEF M&E Unit and also from UNDP-GEF. The final evaluation will focus on impact and sustainability of results, including the contribution to capacity

development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the PPRR based on guidance from the UNDP-GEF Regional Coordinating Unit. The independent evaluation team will be contracted directly by the PPRR.

**Audit Clause**

132. The Implementing Partner will provide the Resident Representative with certified periodic financial statements, with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals and in accordance with the Project Cooperation Agreement. The Audit will be conducted by a commercial auditor engaged by the Implementing Partner.

### 4.4 LEARNING AND KNOWLEDGE SHARING

133. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition:

- The project will participate, as relevant and appropriate, in UNDP-GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics.
- The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.

134. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identification and analyzing lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP-GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. To this end a percentage of project resources will need to be allocated for these activities.

### 4.5 INDICATIVE MONITORING AND EVALUATION WORK PLAN AND CORRESPONDING BUDGET FOR TRANCHE 1

| Type of M&E activity | Responsible Parties | Budget US$ *Excluding project team Staff time* | Time frame |
|---|---|---|---|
| Inception Workshop | ▪ Regional Flyway Facility<br>▪ PPRR<br>▪ UNDP GEF | 20,000 | Within first two months of project start up (i.e. once regional flyway facility staff are recruited) |
| Capacity Assessment | ▪ UNDP-Jordan<br>▪ UNDP-GEF | 15,000 | At project start up |
| Inception Report | ▪ Project Team<br>▪ PPRR | None | Within one month following Inception Workshop |
| Measurement of Means of Verification for Project Purpose Indicators | ▪ Regional Flyway Facility will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members | To be finalized in Inception Phase and Workshop. Indicative cost 10,000 | Start, mid and end of project |
| Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis) | ▪ Oversight by Project GEF Technical Advisor and Project Coordinator<br>▪ Measurements by regional field officers and local IAs | To be determined as part of the Annual Work Plan's preparation. Indicative cost 40,000 | Annually prior to APR/PIR and to the definition of annual work plans |
| APR and PIR | ▪ Project Team<br>▪ PPRR<br>▪ UNDP-GEF | None | Annually |

| Type of M&E activity | Responsible Parties | Budget US$<br>*Excluding project team Staff time* | Time frame |
|---|---|---|---|
| TPR and TPR report | ▪ Government Counterparts<br>▪ PPRR<br>▪ Project team | None | Every year, upon receipt of APR |
| Steering Committee Meetings | ▪ Project Coordinator<br>▪ PPRR | 25,000 | Following Project IW and subsequently at least once a year |
| Periodic status reports | ▪ Project team | 10,000 | To be determined by Project team and UNDP CO |
| Technical reports | ▪ Project team<br>▪ Hired consultants as needed | 50,000 | To be determined by Project Team and UNDP-CO |
| Adaptive Management Reviews | ▪ Project team<br>▪ UNDP- CO<br>▪ UNDP-GEF Regional Coordinating Unit<br>▪ External Consultants (i.e. evaluation team) | 40,000 | At the mid-point of project implementation. |
| Mid-term Evaluation | ▪ Project team,<br>▪ UNDP-CO<br>▪ UNDP-GEF Regional Coordinating Unit<br>▪ External Consultants (i.e. evaluation team) | 100,000 | At the end of project implementation |
| Lessons learned | ▪ Project team<br>▪ UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc) | 15,000 (average 3,000 per year) | Yearly |
| Audit | ▪ UNDP-CO<br>▪ Project team | 20,000 (average $5,000 per year) | Yearly |
| Visits to participating countries (UNDP staff travel costs to be charged to IA fees) | ▪ UNDP Country Offices<br>▪ UNDP-GEF Regional Coordinating Unit (as appropriate)<br>▪ Government representatives | 25,000 (average one visit per year) | Yearly |
| TOTAL INDICATIVE COST FOR TRANCHE I (5 YEARS)<br>*Excluding project team staff time and UNDP staff and travel expenses* | | US$ 380,000 | |

## PART 5: Legal Context

135. To be added before CEO Endorsement

## ANNEX 1: Logical Framewor

See Annex 2 of the Executive Summary

## ANNEX 2: Incremental Cost Analysis

See Annex 1 of the Executive Summary

**SIGNATURE PAGE**

Country: _____

UNDAF Outcome(s)/Indicator(s): _____
*(Link to UNDAF outcome., If no UNDAF, leave blank)*

Expected Outcome(s)/Indicator (s): _____
*(CP outcomes linked t the SRF/MYFF goal and service line)* _____

Expected Output(s)/Indicator(s): _____
*(CP outcomes linked t the SRF/MYFF goal and service line)* _____

Implementing partner: _____
*(designated institution/Executing agency)*

Other Partners: _____

_____

Programme Period:_____
Programme Component:_____
Project Title:_____
Project ID: _____
Project Duration: _____
Management Arrangement: _____

Total budget: _____
Allocated resources: _____
- Government _____
- Regular _____
- Other:
  - Donor _____
  - Donor _____
  - Donor _____
- In kind contributions _____

**Agreed by (Government): _____**
**Agreed by (Implementing partner/Executing agency):_____**
**Agreed by (UNDP):_____**