

**Project Document** 



Government of the Republic of Yemen

**United Nations Development Programme** 

# Atlas Award ID: 00049646

# STRENGTHENING SOCOTRA'S POLICY AND REGULATORY FRAMEWORK FOR MAINSTREAMING BIODIVERSITY

# Narrative

The project contributes to the goal of creating a sustainable and well-governed path of development for the Socotra archipelago that ensures the conservation of its globally important biodiversity. The project's objective is that Biodiversity management considerations are mainstreamed effectively into the current process of "decentralizing governance for development" on the Socotra archipelago. The objective will be achieved through the four following project outcomes that reflect the necessary interventions to address the constraints identified in each element of the mainstreaming framework: Local Governance Support, Mainstreaming Tools, Strengthening NGO Advocacy and Benefits of Biodiversity Conservations to Local Livelihoods.

UNDAF Outcome(s):An environment that fosters the efficient and<br/>sustainable use of resources leading to equitable,<br/>job-creating growth in promising sectors, with a<br/>focus on youth and womenExpected CP Outcome(s):Sustainable and equitable use of natural<br/>resourcesExpected Output(s):Enhanced national and local capacities for<br/>sustainable and equitable management of natural<br/>resources, including waterImplementing Partner:Ministry of Water and Environment

### **Responsible Parties:**

Programme Period: Country Programme Compor Project Title: Strengthening Regulatory Framework f Biodiversity Atlas Award ID: Start date: End Date PAC Meeting Date	Socotra's Policy and	Total resources required Total allocated resources: • Regular • Other: o GEF Parallel Funding Govt In-kind (NGO) Contributions	2,822,500 2,047,500 975,000 1,072,500 750,000 25,000
Mgmt Arrangements	National Implementation		

Agreed by	Signature	Date	Name and Title
Ministry of Planning and International Cooperation		7 July 08	H.E. Mr. Abdul Karim Ismail Al-Arhabi Deputy Prime Minister, Minister of the Ministry of Planning and Int'l Cooperation
Ministry of Water and Environment		7 July 08	H.E. Mr. Abdulrahman F. Al-Iryani Minister of Water and Environment
United Nations Development Programme (UNDP)		7 July 08	Mr. Selva Ramachandran UNDP Resident Representative, a.i.
UN official exchange i	ate at the date of signat	ure: US \$ 1.0	00 = YR 199.60

# I. SITUATION ANALYSIS

Owing to its remote geographic location (480 km south of the Arabian peninsula and 240 km east of the Horn of Africa) and long isolation, Socotra has a remarkably high proportion of endemic flora and fauna – 310 plants, over 30 vertebrates, and numerous invertebrates. It is ranked among the ten most endangered island flora in the world, with spectacular plants such as dragonblood and frankincense.

1. For centuries, the archipelago has been largely inaccessible and the local people have developed a way of life and traditional practices that have led to the careful husbandry of natural resources. Only in the last decades have Socotris been exposed to external development options. Until very recently, there have been only low levels of threat to habitats and species. These threats are largely from over-use of natural resources, e.g. timber and fuelwood, water resources, over-fishing particularly of sharks and lobsters, and localised over-grazing linked to a move for people to become more sedentary. These threats remain relatively limited in terms of scale and distribution, and the delicate balance between the local population and natural resources, which preserved the islands' biodiversity until present times, remains in place to a significant extent. However, the situation is changing rapidly and the main threats are arising from external pressures, as well as the foreseen changes in local societies. The opening up of the archipelago has resulted in significant immigration from the mainland, unplanned investments and constructions, and unscrupulous resource exploitation. These agents of change take two main forms: *i*. external investments and developments and *ii*. internal development progression of local communities. How the new development opportunities are managed will have a profound impact upon the future maintenance of Socotra's biodiversity values.

2. At the same time, Yemen has embarked on a process of decentralized democratic governance, with the promulgation of the Local Authority Law in August 2000. The law seeks to restructure the distribution of budgetary resources between the local and central government thereby increasing local budgetary autonomy. It also consolidates local authority for planning, development, and administration into one elected body – the District Council. Local elections were held for the first time in 2001 and again in September 2006. The decentralization process and implementation of the Local Authority Law has been slow, with setbacks along the way. Nevertheless, there is evidence of strong and sustained political commitment to this major transformation of governance. After the 2006 elections the President announced a further step in the process – the replacement of appointed Governors and District Directors with elected officials. The decentralization process has attracted significant donor assistance and there is general consensus that the trend towards decentralized democratic governance will continue.

3. In 1997 the GEF funded a project called the Conservation and Sustainable Use of the Biodiversity of Socotra Archipelago. This UNDP-GEF project was the first of its kind and achieved remarkable success in documenting and bringing international attention to Socotra's biodiversity (resulting in Socotra's listing as Biosphere Reserve and its pipe-lining as World Heritage site). It gave birth to the Socotra Conservation and Development Programme (SCDP), which has continued to be funded by UNDP and bilateral donors since the GEF project closed in 2001 (US\$7m 2001-2008). SCDP works in tandem with the Socotra branch of the Environmental Protection Authority (EPA), that gradually is taking over its activities, for which (human) resources are being allocated by the Government of Yemen (GoY) and SCDP.

4. SCDP-EPA has worked hard to ensure biodiversity values – including existing traditional uses and practices of the local Socotri communities – are taken into consideration as Socotra develops. The most important tool to guide decision-making developed by SCDP is a Conservation Zoning Plan (CZP) that was passed into law through Presidential Decree No. 275 in September 2000.

5. Despite the ongoing SCDP-EPA work and the existence of the CZP, development decisions are being made that threaten Socotra's biodiversity. The Local Authority Law has yet to have a significant impact on spatial planning. The various constituents of the previous local administration – the Mamoors, line agencies and military – all remain influential on Socotra. Local government structures remain weak and most decisive development decisions are taken at the central level in Sana'a. A number of high profile cases have shown how difficult it is to mainstream biodiversity

considerations into such a development decision-making process. These cases have also painted SCDP-EPA as being "anti-development" in its efforts to protect biodiversity values against powerful interests. While SCDP-EPA has successfully fought these cases, a strategy of reactionary confrontation cannot last forever. If the process of making ad hoc, unplanned development decisions continues biodiversity values will remain vulnerable to the agents of change – external investments and development, and the internal development progression of the local communities.

6. There is now a clear need to internalize biodiversity considerations in an effective spatial planning process for Socotra that maximizes biodiversity benefits without compromising Socotra's development opportunities. This will require a transformation of the current governance reality and more effective advocacy of the importance of biodiversity in the Socotra Local Authorities. An opportunity now exists to do this. An output of the UNDAF 2007-2011 is the operation of a National Decentralization Strategy, which includes an increase in the number of local districts producing participatory local plans and budgets.

7. The impact of this project will be to create a framework that internalizes biodiversity considerations into the ongoing development of Socotra. While it is recognized that trade-offs will be made and not all of Socotra's biodiversity can be protected, the project will allow informed decisions to be made by capable strategic planners and local resource users that acknowledge the global and local benefits of biodiversity. While the final decisions of democratically elected representatives cannot be predicted, it is expected that the impact of this mainstreaming approach will be not only the maintenance of Socotra's globally significant biodiversity values, but the maximization of biodiversity benefits.

8. The Socotra Archipelago is a globally significant centre of biodiversity ranked by botanists<sup>1</sup> among the top ten islands in the world in terms of botanical diversity and well-known historically for its unique vegetation. The archipelago is the most important centre for biodiversity within the Horn of Africa biodiversity hotspot<sup>2</sup>, one of only two hotspots that are entirely arid, and characterized by concentrations of high endemism. BirdLife International recognises 22 Important Bird Areas within the archipelago, and it forms one of the world's 221 globally important Endemic Bird Areas. The Worldwide Fund for Nature (WWF) lists it as one of their 200 Ecoregions and it is also included in the regional network of important Marine Protected Areas. It was designated by UNESCO as a Man and Biosphere Reserve in 2003. In 2007, the World Heritage Site nomination file was cleared by UNESCO and is currently under evaluation by IUCN whose advice will be submitted to the World Heritage Site Council, who will decide in July 2008. The archipelago has such a unique assemblage of animal and plant species that it is often referred to as "*the Galapagos of the Indian Ocean*" and the application for inclusion in the World Heritage List states that:

"The Socotra Archipelago is a unique living museum and a masterpiece of evolution featuring almost 300 endemic plants (36% of the total), over 30 endemic vertebrates, and more than 300 species of endemic invertebrates (among those so far described). In addition, each of the archipelago's three inhabited islands exhibits its own high level of endemism rendering the archipelago as a whole even more significant".

9. There is an extremely rich marine diversity that is still being studied. Its marine environment contains a combination of species originating from all neighbouring seas (Indian Ocean, Red Sea, and Persian Gulf) as well as the Pacific Ocean. It possesses well-preserved coral communities that exhibit a unique array of fish assemblages. To date 33 genera of hermatypic corals have been found. The living coral cover averages between 20-50% but rises to 80% in places. A survey of fish in 2002 showed 726 species as being present including 35 species of cartilaginous (Chondrichthyes) fish in 21 genera of 13 families. Three possible endemic species were recorded including an ophichthis-like eel which may be new to science.

10. Several endemic plant species are endangered. The endemic and monotypic *Dirachma socotrana* is considered Vulnerable by IUCN while *Croton pachyclados* survives only in one location<sup>3</sup>. *Dendrosicyos* is the only representative of the cucumber family to grow in tree form.

<sup>&</sup>lt;sup>1</sup> Miller, A. & M. Morris. 2004. *Ethnoflora of Soqotra Archipelago*. Royal Botanic Garden, Edinburgh.

<sup>&</sup>lt;sup>2</sup> See <u>http://www.biodiversityhotspots.org/xp/Hotspots/horn\_africa</u>

<sup>&</sup>lt;sup>3</sup> Mies, B.A. & F.E. Beyhl. 1998. Vegetation ecology of Soqotra. Pp. 35-82 In: H.J> Dumont (ed) Proc. *First international symposium on Soqotra Island: Present and future, Aden 1996*. Soqotra Technical Series Vol. 1. UNDP, New York.

*Euphorbia abdelkuriensis* grows only on Abd el Kuri. This endangered plant is an unusual Euphorbia, known for its spineless columnar stems, all linked by a single rootstock. In total, IUCN names 52 endemic Socotran plants in the Red List of Threatened Species<sup>4</sup>. Socotra's plants have had important economic values for thousands of years. Frankincense from several of the eight endemic *Boswellia species* and dragon's blood or cinnabar (used as a medicine and dye) from *Dracaena cinnabari* are the main gum-resins obtained from Socotra.

11. The most widespread vegetation type is a distinctive species-rich open deciduous shrubland found on the coastal foothills and the limestone escarpments. Two endemics, *Croton socotranus* and *Jatropha unicostata*, are the main shrubs present and are the most abundant plants on Socotra. Succulent trees, such as *Euphorbia arbuscula*, *Dracaena socotranus*, and *Adenium obesum* spp. *sokotranum* and emergent trees, such as *Boswellia* spp., *Sterculia africana* var. *socotrana*, and *Commiphora* spp. are also present (Davis *et al.* 1994), along with scattered *Dendrosicyos socotranus* and *Ziziphus spina-christi*. Grasses and herbs develop after sufficient rainfall. On the limestone plateau and upward to the middle slopes of the Hagghier Mountains there are areas of semi-deciduous thicket dominated by *Rhus thyrsiflora*, *Buxanthus pedicellatus*, *Carphalea obovata*, and *Croton* spp. The higher montane slopes support a mosaic of dense thickets, dominated by *Rhus thyrsiflora*, *Cephalocroton socotranus*, and *Allophylus rhoidiphyllus* with the emergent dragon's blood tree (*Dracaena cinnabari*), low *Hypericum* shrubland, and in many areas anthropogenic pastures. Open rocks are covered by lichens and low cushion plants, including an endemic monotypic genus of Umbelliferae *Nirarathamnos asarifolius* and several endemic species of *Helichrysum*.

12. The unique biodiversity of Socotra has evolved in response to, and is controlled by and adapted to, two critical factors:

- Isolation: Socotra is one of the most isolated pieces of land of continental landmass origin, probably having become detached from present Dhofar, Oman as a fault block during the Middle Pliocene some 3.5 million years ago, in the same set of rifting events that have opened the Gulf of Aden. Owing to its remote geographic location (480 km south of the Arabian peninsula and 240 km east of the Horn of Africa) and this long isolation, Socotra has developed a remarkably high proportion of endemic flora and fauna. It is suggested that some of the endemic species are relics of an ancient flora and fauna surviving in the Haghier massif which is considered by some geologists<sup>5</sup> not to have been submerged since the Mesozoic. It is ranked among the ten most endangered island flora in the world. As with many isolated islands, the ecosystems evolved with no terrestrial mammals except bats (and possibly a shrew). This is important as it means the fodder vegetation lacks defences (such as thorns) and soils may be susceptible to compaction from introduced cloven-hoofed ruminants. It also raises concerns regarding alien invasive species.
- <u>Climate</u><sup>6</sup>: Biodiversity on Socotra is controlled not only by its geographical isolation, but more importantly by climate, especially rainfall levels. Rainfall depends on the Red Sea Convergence and the Monsoonal Inter Tropical Convergence Zone (ITCZ) the mechanisms that create the monsoon winds. Rain falls on the island during May September in the higher parts when the ITCZ passes over the island on its northward migration, while a second, weaker wet season occurs during October-November as it returns south. Rainfall varies across the three main geographical terrains with mean annual rates between 150 mm on the coastal plains to more than 600 mm in the mountains. Yet rainfall is sporadic and there can be years without rain and annual periods with no precipitation and extreme aridness. Dew is an important source of water in the high mountains, providing locally up to 2/3 of the total precipitation. Plant species found here have evolved morphological and physiological adaptations to cope with this dry climate and fierce monsoonal winds, e.g. Adenium socotranum has a special cell sap

<sup>&</sup>lt;sup>4</sup> Hilton-Taylor, C. 2000. 2000 IUCN Red List of Threatened Species. IUCN, Gland, Switzerland and Cambridge, UK.

<sup>&</sup>lt;sup>5</sup> Uvarov, B.P. & G.B. Popov. 1958. The Saltatorial Orthoptera of Socotra. *J. Linn. Soc. Zool.* 43: 359-389.

<sup>&</sup>lt;sup>6</sup> De Geest, P., M. De Flou, P. Scholte, M. De Dapper and E. Keppens. (in prep). The climate of Soqotra island (Yemen): An assessment of the timing of the monsoon wind reversal and its influence on precipitation patterns.

cycling within the caudex which prevents overheating. The succulents display several morphological adaptations – plant bodies are globular or columnar, with reduced surface areas that decrease transpiration; glaceous wax surfaces and microanatomical epidermal emergences reflect radiation. Umbrella-shaped shrubs form dense thickets, with all plants reaching the same height, a structure that protects them from strong winds<sup>7</sup>. Although well adapted to the harsh climatic conditions, the biodiversity of Socotra is likely to be less resilient to stress.

13. The natural ecosystem of the archipelago is largely intact and well preserved, not least because if its careful husbandry by the local populace and its isolation. Socotri people have developed strong traditional rules to protect the terrestrial and marine natural resources they are so reliant upon. Local village councils enforce bans on cutting of live trees (unless with the agreement of the village council and for valid reasons), establish marine sanctuaries where no net fishing is allowed and set monthly "rest" period for all fishing grounds.

14. Until very recently, there have been only low levels of threat to habitats and species. These threats are largely from over-use of the natural resources, e.g. timber and fuel wood tree species, water resources, over-fishing particularly of sharks and lobsters, and localised over-grazing linked to a move for people to become more sedentary, but they remain relatively limited in terms of scale and distribution, and the delicate balance between the local population and natural resources, which preserved the islands' biodiversity until present times, remains in place to a significant extent.

15. However, the situation is changing rapidly and the main threats are arising from external pressures, as well as the foreseen changes in local societies. With the opening of the airport in July 1999, the archipelago became easily accessible after centuries of virtual isolation. This has resulted in significant immigration from the mainland (e.g. the population of Hadibo has increased 10-fold in the last decade), unplanned investments, construction, and unscrupulous resource exploitation. These agents of change take two main forms, 1) external investments and developments, and 2) internal development progression of local communities.

### Barriers

### The Challenge of Accountability and Participation to Improve Democratic Governance

16. Political commitment is often identified as the most significant constraint which underlies implementation of mainstreaming frameworks<sup>8</sup>. This is certainly the case for Yemen. With the slowdown in the reform process between 2000 and 2005, Yemen made limited progress with public sector reform and decentralization over the period of implementing its first Poverty Reduction Strategy Paper (2003-2005).

17. Tackling the issues is complicated by a): continued reliance of the state on oil revenues, which weaken the accountability link of the state to its citizens; b) strength of traditional power structures that do not owe primary allegiance to the State and norms that are not necessarily consistent with internationally accepted human rights norms; and c): centralist tendencies that use valid claims of lack of capacity at the local level to delay meaningful decentralization, which would bring power closer to the people.

18. As a result of the implementation of delayed economic reforms in July 2005 and in particular by confronting the task of reforming Yemen's governance systems, the situation has begun to slowly improve. Moreover, elections have been held, Councils perform their work and national consultations are held annually to discuss problems of decentralization. Most commentators and experts agree Yemen is on a path towards strengthened decentralized democratic governance, but this is not a short-term project. The World Bank categorises Yemen as a Fragile State, but also recognises it as a gradual reformer<sup>9</sup>. Governance experts in Yemen developing the National Decentralization Strategy expect the strategy to be implemented over 10-15 years. There will be progress (such as the President's recent announcement that elected officials will head local district

<sup>&</sup>lt;sup>7</sup> Mies, B.A. & F.E. Beyhl. 1998. Op. cit.

<sup>&</sup>lt;sup>8</sup> See Swiderska 2002

<sup>&</sup>lt;sup>9</sup> World Bank Country Assistance Strategy FY2006-FY2009

councils), but also set backs (such as the recent establishment of the Urban Planning Authority, a deconcentrated body outside the Local Authority Law structure which has responsibility for land registration, among other things).

### Weak Decentralised Governance on Socotra

19. To integrate Socotra's biodiversity considerations into the mainstream of development planning, there first has to be a "mainstream"- and integrated, island-wide strategic planning process. Presently Socotra faces a unique situation whereby biodiversity management functions are in fact much stronger than the existing district-based development planning process itself. The various constituents of the previous local administration – the Mamoors, line agencies and military – all remain influential on Socotra and there is no island-wide planning or decision-making authority. Local government structures remain weak and most significant development decisions are taken at the central level in Sana'a. A number of high profile cases have shown how difficult it is to mainstream biodiversity considerations into such a development decision-making process.

20. There are a number of factors that contribute to the weak local governance situation on Socotra. Firstly, the physical distance between the Hadramout Governorate on the mainland and the two district councils on the island causes barriers. Governorates generally are reluctant to devolve planning, budgeting and implementation responsibilities to districts. However, in the case of Socotra and its two districts, these functions have been devolved, yet PEM capacity at the district level remains limited, despite the efforts made by DLDSP, and will require continued development. It is also important to note that the geographic separation of the island from the main land (400 km) contributes to the inability of the Governorate headquarters in Mukalah to provide responsive capacity support to Socotra's two districts

21. Secondly, the Local Authority Law (LAL) is not always implemented consistently. A number of *deconcentrated* entities sit outside the *decentralized* local government structure. The Ministry of Finance's Accounting Unit is one such entity (see Annex 1) carrying out all financial management functions on behalf of the district local authority and in violation of the spirit of the LAL. Therefore, administrative responsibilities have been passed to the district councils without fiscal control. Furthermore, Central Authorities as in the case of water (as seen in the case of the EPA), electrification and agriculture are operating on the island through de-concentrated branches that function outside the local authority system and with very limited coordination with it. By virtue of its superior implementation and delivery capacity and the fact it has been the main vehicle for donor support for the past 10 years, the EPA has become the proxy local governance structure on Socotra. It has taken on service delivery that should be the remit of the local district councils (such as health care and education) and is beyond the normal mandate of EPA. In addition to the inconsistencies within the local government structure, due to Socotra's historical strategic importance, the military also still has an important influence over decision-making.

22. Spatial planning on Socotra faces unique challenges that require careful attention:

- Socotra is traditionally a nomadic society and there is no concept of "ownership" beyond that of stock animals. Land is communal and belongs to the tribe and this is overlain by an additional, complex deed of use of natural resources to other tribes (a primitive form of concession) where a set of traditional arrangements applying to seasonal grazing rights and use of natural resources is in place. As people are becoming more sedentary and taking up new activities, developing land, or selling it to outside interests, the issue of land tenure is becoming increasingly difficult. While land is communal, the strongest man in the tribe can sell it without providing benefit to other tribal members and without compensating other tribes for lost traditional natural resource use, thereby causing conflict within and between tribes. Such loss of traditional resource use in turn is placing greater pressure on the land to which displaced tribes have access.
- Several European horticultural companies have shown their interest in Benefit Sharing Agreements to commercialise succulents and Begonia's originating from Socotra. However, in the absence of an Access and Benefit Sharing (ABS) framework for Socotra, the GoY lacks the expertise to negotiate such agreements and there is no mechanism to transfer resulting financial resources to Socotra. Such a framework would help local communities see the value of biodiversity, create greater security of tenure and contribute to local government revenues to improve service delivery.

### Ineffective Mainstreaming Tools

23. While donor assistance has been provided for the development of conservation planning tools, they are increasingly ineffective. This may be due in part to the weak planning "mainstream" (see above), but is also due to weaknesses with the tools themselves.

24. The first effort to develop a tool for island-wide spatial planning was not successful. Despite being endorsed by Ministerial Decree in 2004, the EU-funded Master Plan has failed as a mainstreaming tool. Of the 8 projects requested by the GoY only the roads component has been implemented - and only partially and to an environmental standard below that envisaged by the EU (e.g. no EIA has been carried out). Although the Master Plan was developed as a participatory project, it was developed outside the local government structure. It is an example of over-investment in a planning tool without ensuring adequate institutional anchorage. The Decision Support System (DSS) currently being developed by SCDP at the behest of its bilateral donor is another example of a tool being developed with donor assistance without clear institutional ownership. The answers to the questions "whose decisions?" and "decisions for what?" are not clear for the DSS.

25. Another important mainstreaming tool – the Conservation Zoning Plan - was also developed outside the local government structure. Article 6 of the Presidential Decree implementing the CZP gives power for its application to the Environment Protection Council (now the EPA) and the Ministry of Construction and Housing and Urban Planning (now Ministry of Public Works and Roads). The limits of this arrangements were demonstrated when a contract for the construction of roads was approved without any reference to the CZP – by the Ministry of Public Works and Highways! One road in particular was planned to go straight through a Nature Sanctuary Zone. The EPA was unable to enforce the CZP. Only when SCDP and SCF focused international attention on the issue and the GoY felt its reputation to the conservation of Socotra's biodiversity was at stake, was the road re-routed by order of the President, but not before 16 km of road approaching the nature sanctuary had been constructed.

### Engagement of Local Communities in Decision-Making Process

26. The ability of local communities to engage in sustainable forms of development is significantly hampered by a number of factors. Having been isolated from the outside world for such a long period of time, Socotri society has no experience of organizing and operating effective community management groups, and has limited capacity to be involved in local government. Similarly, civil society has no means of taking part in the planning process and locally-based NGOs, which could help empower the local populace, were lacking until very recently. This situation is exacerbated by the heavily bureaucratic government procedures for forming NGOs in Yemen and requiring them to re-license every three years. Recent work by the SCDP and SCF has begun to change this and a small number of NGOs and CBOs have been formed and are being supported. While the SCDP has a mandate to build local capacity, including NGOs, it has concentrated on working with established organisations and has not systematically prioritised NGOs. The difficulty of building NGO capacity appears to have been under-estimated and only the SCF is currently working to remedy this.

- 27. A number of specific barriers have been identified:
  - No collective voice: Nominally the Local Councils of Hadibo and Qualansiyah are elected to represent the local communities' interests within the planning process, but it is clear that the capacity of these is so limited that they cannot provide an effective voice amongst other competing interests. The rudimentary nature of the current NGOs also means that independent special interests cannot be heard effectively.
  - No mechanism for making inputs into development planning: In addition but related to the above, local communities have no formal mechanism through which they can make inputs to the planning process. This is compounded by the fact that the planning process, such as it is for the island, is complicated, fragmented and confused.
  - No experience to judge long-term value and appropriateness of development ideas: The prolonged isolation of Socotra means that local people do not always have all the necessary information when making development choices. They see the short-term

economic gains, but have no means to balance these against longer-term costs such as loss of access to natural resources and land.

No models to compare alternatives: The main development paradigm often translates into "big is better" and while local people often express dissatisfaction with this, they have no alternative models of development with which they can counter external proposals.

## Resource Users' Perceptions of Local Biodiversity Benefits

28. Although SCDP and SCF have been working with local communities for nearly 10 years, perceptions of the local benefits that can be derived from biodiversity remain tentative at best. The earlier example of the road construction infringing the CZP provides a good example. Even though the CZP was developed in a highly participatory manner, local communities did not immediately support the enforcement of the conservation zones.

Despite the success of the EPA and its supporters in preventing the road from passing through the nature reserve....considerable....damage has been done to the EPA and the project. Residents of Qalansia are convinced that the EPA and the project have denied them the road they have been demanding for the sake of a conservation area. They have not accepted the argument that the Socotra Archipelago Master Plan road alignment is the best one for the development of Qalansia Town and many residents of Qalansia. The lobby for the coastal road has succeeded in making the argument seem to be the classical one of conservation against development. This is a distortion of the facts on the ground, but is already damaging the support of a considerable number of local leaders for the Conservation Zoning Plan. A core issue here is the degree to which local leaders have a sound understanding of the relationship between the WP and the economic development of the island. The construction of the road through the nature reserve, a prime potential tourist attraction on the door step of Qalansia Town, did not seem to be seen as damaging to their interests in any way. This indicates that the significance of eco-tourism for the town's economic development was not recognised and/or that the damage the road would have caused to the tourist asset was not understood. Both failures of understanding are of concern and indicate that the project and EPA has much to achieve despite the exemplary information and awareness programme carried out to date<sup>10</sup>.

29. The attraction of big investments with immediate returns to a few may continue to outweigh the long-term, dispersed benefits of more sustainable investments. This will particularly be the case when development decision-making is opaque and easily influenced by well-connected investors. The linkages between sustainable utilisation and security of benefit are not immediately evident and need to be addressed.

30. Many projects (including GEF projects) try to address the problem by generating immediate direct local benefits. Often these benefits have little connection to the project's biodiversity objective and therefore they are not effective, regardless of how successful the activities are. As a result, local communities only cooperate with the project because they hope to benefit directly from the *project* rather than from the *outcomes* of the project. This contributes to a culture of dependency and raised expectations that can have a negative effect on biodiversity values once project support ends. Real sustainability will only be achieved when the costs and benefits (including the opportunity costs) are internalised within decision-making systems and local communities have security of tenure over the whole suite of resources so that they can calculate the relative values of these and make appropriate trade-offs (e.g. medicinal plants vs. grazing).

31. Enticing behavioural change through income-generating activities (so called "win-win" opportunities) is also problematic. As has been identified in previous studies, income-generating activities - in particular ecotourism – are generally not able to act as a substitution for livelihood sources/opportunities lost by enforced changes in resource use. In the context of poor local communities, such income is regarded as complementary to the range of available opportunities,

<sup>&</sup>lt;sup>10</sup> Extract from Exhibit 9 of the Conservation and Sustainable Use of the Biodiversity of Socotra Archipelago – Terminal Project Evaluation Mission Report of August 2003.

not substitutional. In countries with an underdeveloped tourism sector and infrastructure. ecotourism rarely thrives, due to structural constraints beyond the control of a project<sup>11</sup>.

The SCDP's community mobilization and development component does not sufficiently 32. assess the link between its community assistance and biodiversity outcomes, or how such assistance can be used to foster increased support for biodiversity mainstreaming<sup>12</sup>. This strategy struggles to achieve sustainability as it becomes increasingly difficult to "buy-off" local communities as they move along their development trajectories. Once the SCDP ends, the EPA is unlikely to be in a position to continue to provide support to the water, health and development sectors, and ultimately depends on its coordination - facilitation role to remain authorative.

### **II. STRATEGY**

33. The project contributes to the **goal** of creating a sustainable and well-governed path of development for the Socotra archipelago that ensures the conservation of its globally important The project's objective is that Biodiversity management considerations are biodiversity. mainstreamed effectively into the current process of "decentralizing governance for development<sup>13</sup>" on the Socotra archipelago. The objective will be achieved through 5 project outcomes that reflect the necessary interventions to address the constraints identified in each element of the mainstreaming framework.

### Component 1: Local Governance Support (GEF \$; UNDP up to \$1m; GoY 0.75 \$m)

35. As a result of this GEF intervention, UNDP-Yemen has agreed to develop and fund a local governance support project for Socotra (see attached UNDP co-financing commitment letter). Such support will focus primarily on the achievement of two interrelated objectives: (a) the creation of an island-wide local government and a resultant integrated planning approach into which biodiversity considerations can become central, and (b) the strengthening of the current public administration structure at the district level, in line with the National Decentralization Strategy (currently under discussion) and in a manner that is sensitive to Socotra archipelago's (i) wider governance structure as well as (ii) specific developmental and environmental challenges.

The proposed creation of an island-wide authority has been endorsed by the centralgovernment deliberations addressing new institutional arrangements for local governance in Socotra. Such deliberations are taking place in the context of Socotra's nomination as a prestigious World Heritage site. It is worth noting that a Cabinet decree issued on February 12<sup>th</sup> 2008 calls for the establishment of appropriate institutional arrangements to enhance the planning and coordination mechanisms in place in the island.

37. The proposal will be an integral part of UNDP's new Country Programme work. In effect, the capacity-development component of the proposal will build on the arrangements that Decentralization and Local Development Support Programme, (DLDSP) has already put in place to support the District Local Authorities in Hadebo and Qalansiya. DLDSP is also supporting the formulation of the National Decentralization Strategy, whose main objective is to clarify mandates, functional assignments and required institutional arrangements at the sub-national level of governance. In view of the fact that the decentralization project is expected to be extended, with a wider scope of interventions, from 2009 onwards, the Socotra project provides UNDP with an opportunity to pilot the new consolidated local governance structure.

38. Socotra provides UNDP and DLDSP an opportunity to pilot the new consolidated local governance structure. In order to achieving its two-fold objective - as indicated in (35) above-Component 1 will focus on the following four areas of intervention:

www.gefweb.org/MonitoringandEvaluation/MEOngoingEvaluations/MEOLocalBenefits/meolocalbenefits.html

12 Biodiversity outcomes are not always maximized and in some cases may be reversed, e.g. there is limited information on what the implications of the SCDP's provision of new *khariifs* (traditional water storing cisterns - sometimes filled by rainwater harvesting, but also supplied by piping water from mountain sources) to local communities may be on livestock numbers, traditional rangeland management

<sup>&</sup>lt;sup>11</sup> This paragraph draws from the findings of the GEF Evaluation Office report "The Role of Local Benefits in Global Environmental Programs" 2006, see

practices, and land degradation.

 $<sup>^{13}</sup>$  DGD is a term used by UNDP's Democratic Governance practice area.

- Support the GoY in the design, launch and activation of new institutional arrangements for sustainable island-wide development. Such arrangements will entail not only the set-up of an island-wide authority -as indicated in (35) above-, but the activation of appropriate coordination mechanisms between such authority and concerned international, central and local stakeholders. Thus, the island-wide authority ought to (i) be responsive to international commitments in the event of Socotra's designation as a World Heritage Site and (ii) ensure that decision-making at the central as well as the district levels are adequately informed by environmental and bio-diversity considerations. For the purpose of facilitating coordination between the island-wide authority and the central government, the project will assess, based on the experiences and set-up of the SCDP Sana'a liaison offices during its first year, the feasibility of setting up a small technical unit at the central level (possibly at the Ministry of Water and the Environment) with a clearly articulated support function. Such a unit might also play an important advocacy role by drawing on its technical expertise to draw the attention of international, national and/or local stakeholders to environmental and developmental challenges that need to be addressed in Socotra. If such an arrangement is found to be feasible, the activation of the unit will be supported by the project through the concerned national counterparts.
- Support the streamlining of functions and tasks that are currently under the umbrella of EPA's branch in Socotra, while capitalizing on the know-how and experience gained by SCDP-EPA's local staff working on developmental and environmental issues. It is envisaged that many of the tasks that are currently carried out by SCDP-EPA will be transferred to the island-wide authority, to the district administrations and specialized agencies/NGOs. The project will also seek to support EPA in strengthening its monitoring and supervision mechanisms, and its ability to collect licenses, fees and fines as stipulated in relevant regulations. Financial transfer mechanisms, so as to ensure the sustainability of EPA's operations, will also be addressed by this component of the project.
- Support the GoY in the implementation of the institutional reforms called for by the National Decentralization Strategy (currently under discussion) in the Districts of Hadibo and Qalansiya: activation of newly-devolved functions, realignment of organizational structures, and streamlining of internal processes. Such support will be provided in a manner that is sensitive to (the proposed) Socotra's island-wide governance structure. Together with national and local counterparts, the project will work to ensure that there is a clear division of labor between the island-wide and the district administrations, and that required coordination mechanisms are well-defined and in place once the new structures are activated.
- Support the development of the two district administrations' capacities to mobilize local resources, manage public expenditure and assets, improve service delivery undertake urban/town management and promote sustainable local economic development (particularly, but not exclusively, through the promotion of sustainable tourism), in line with environmental regulations and international commitments

### Component 2: Mainstreaming Tools

39. A key element of the component of the project will be to review the existing tools available to integrate biodiversity management considerations into land use planning decisions. The project will working closely with the new local authority and districts to influence strategic processes. The component will also review international biodiversity mainstreaming experience to fully appreciate the array of available spatial planning tools<sup>14</sup>. These examples will also serve to raise awareness and build the capacity of local decision-makers.

<sup>&</sup>lt;sup>14</sup> See for example the Biodiversity Toolkit developed for local councils in Australia <u>http://www.deh.gov.au/biodiversity/toolbox/index.html</u>

- 40. The focus will not be on sophisticated GIS-based tools. The main emphases will be on:
  - > Developing guidelines and by-laws to strengthen the operations of the CZP.
  - The perspective of local decision-makers, including a gap analysis for the missing information they need to have in order to undertake multi-criteria analyses accommodating economic, operational and conservation needs. Tools will provide additional planning expertise in the Strategic Planning Cell to provide advice on how to tackle important natural resource management issues such as conservation of natural areas, and how future development decisions should take into account the potential impacts on the environment.
  - Ecosystem response tools
  - Conducting rigorous feasibility and sensitivity tests to reduce the risk of imposing inappropriate tools. Importantly, this will be a participatory process that recognizes the fact decision-makers will be making trade-offs. Community attitude survey tools will be incorporated.
  - > With these new tools and techniques, improved management practices will be guided, in order to reach the expected improved compliance to the CZP.

## Component 3: Strengthening NGO Advocacy

41. One of the keys to empowering the local communities to protect their traditional rights and natural resources, and to ensure that they have an adequate voice in the planning and development process, is to legitimise their control by providing them with the skills and tools necessary to organise and represent themselves through legal bodies, e.g. NGOs and development associations. The recent announcement that elected officials will head local district councils will increase downward accountability to communities, but it will also increase the need for community representatives to be able to participate in strategic planning and decision-making processes responsibly.

42. The project will work with the local community groups already connected to SCPD to assist their preparation and involvement with representational government. This will include:

- Exposure to alternative development paradigms
- Facilitation of stakeholder meetings with the Strategic Planning Cell so all stakeholders understand the process that leads to the trade-offs being made.
- The application of new methodologies such as SCALE System-wide Collaborative Action for Livelihoods and the Environment – an approach for broadening development impact. The project will support the SCF in applying the SCALE approach to its operations. SCALE is a process framework and a set of practical tools and techniques that result in enhanced livelihoods, improved governance and increased civil society participation. It uses social change methodologies to achieve widespread and lasting change.

43. The component will also assess the capacity needs of the SCF and undertake the required training and capacity-building to develop the SCF as an Intermediary Support Organisation to provide services catalyzing the start-up of new environment and livelihood-related NGOs and CBOs. The SCF will provide the necessary training, information, and support to enable local NGOs and CBOs to contribute to trade-off debates on behalf of their constituents.

44. The targeted NGO and CBOs encompass existing groups with whom SCDP- SCF is already working (e.g. women and heritage associations), not yet formally recognized CBOs (pastoralists with whom the SCF-livestock project has already intensive contacts) and other production groups with whom contacts are still to be established (e.g. fisheries associations). It is felt that especially through producers' groups (pastoralists, fishermen, protected area associations) a real improvement can be made on the conservation of biodiversity (redynamisation of ancient grazing patterns, adherence to a ban on wood-cutting, maintaining the ban on hunting, adherence to use of lobster traps instead of nets etc.).

# Component 4: Benefits of Biodiversity Conservation to Local Livelihoods

45. At present there are a number of barriers that make it difficult for local communities, individuals and SMEs to benefit from the rich biodiversity on the island, thus greatly limiting their interest in its conservation and management.

46. This holds in particular for the marketing of plants and other natural products, presently inhibited because of export regulations that do not foster Access Benefit Sharing (ABS)<sup>15</sup>. Whereas nurseries on Socotra produce thousands of seedlings of dragonblood trees and Socotra figs (*Dorstenia gigas*) that fetch considerable prices at an international level, no sale of these plants (e.g. to tourists) is presently possible. A legal study will be initiated to prepare the necessary amendments to the present regulations, aiming at a regulated commercialisation based on a proper certification<sup>16</sup>. Where local benefits can be developed on a commercial basis through the private sector, e.g. drugs from medicinal plants, cosmetics etc. from aloes, or resurrected uses for the resin from Dragon's Blood Trees, the project will also undertake necessary market analyses and affordability assessments. It will also apply UNDP-GEF's guidance "Local Business for Global Biodiversity Conservation: small business development strategies in biodiversity projects" before assisting to establish any SMEs<sup>17</sup>.

47. Another barrier that will be addressed by the present project is related with tourism, where most benefits arrive either at an international or national level, but only too a very limited extend at the local rural area, thus providing only limited incentives to communities to the management of the islands' protected areas. Taxing visiting international tourists (e.g. through an additional levied on airplane tickets), will be looked into, as needs clear regulations that assure that revenues are funneled into the management of protected areas and tourism.

48. The project will test incentives mechanisms for changes in resource consumption patterns. This will require the undertaking of detailed social assessments in order to improve understanding of local communities' resource access, use and needs. Guidelines will be developed to ensure the links between local benefits and biodiversity outcomes are examined and monitored.

49. The project will highlight the range of monetary and non-monetary benefits (as set out in the CBD Bonn Guidelines) that can be received from biodiversity resources.

# Global Environmental Benefits

50. Few biodiversity <u>gains</u> are anticipated from this project, for Socotra is not currently experiencing any significant biodiversity loss. Only in small, though rapidly increasing areas, has physical change begun to be discernable. The project is about prevention – prevention of biodiversity loss accompanying future development ('pre-emptive conservation'). It aims to put in place mechanisms that ensure that the long-term development on the islands is sympathetic and sustainable and does not lead to loss of its unique biodiversity. As such, indicators have been designed to demonstrate that the elements of the Mainstreaming Framework are functioning. The assumption is that the functioning Mainstreaming Framework will achieve lasting biodiversity impacts at limited (opportunity) costs.

51. Socotra is a unique archipelago with high biodiversity values that are internationally recognised. Through a number of actions, such as Socotra's 2007 submission for nomination as a World Heritage Site, the GoY has committed itself to the protection of the archipelago's biodiversity values. However, due to a number of governance and institutional capacity constraints, the government has found it difficult to operationalise its commitment. As a result, Socotra's globally significant biodiversity remains at threat.

52. The project will create a framework that internalizes biodiversity considerations into the ongoing development of Socotra. While it is recognized that trade-offs will be made and not all of

<sup>17</sup> Available at http://www.undp.org/gef/05/kmanagement/pub\_practitioner.html

<sup>&</sup>lt;sup>15</sup> No export of live materials of the island is presently allowed. Dead materials only upon specific authorizations (scientific materials only) <sup>16</sup> It is envisaged that EPA will provide this certification under a costrecovery scheme.

Socotra's biodiversity can be protected, the project will allow informed decisions to be made by capable strategic planners and local resource users that acknowledge the global and local benefits of biodiversity. While the final decisions of democratically elected representatives cannot be predicted, it is expected that the impact of this mainstreaming approach will be not only the maintenance of Socotra's globally significant biodiversity values, but the maximization of biodiversity benefits for Socotris.

### NATIONAL PRIORITIES/PLANS:

53. Socotra has been recognized by the GoY as the country's principal conservation area that receives frequent (international) attention and as such plays an important nursery function for decision makers. Moreover, the practical experiences and achievements of EPA-SCDP has given valuable lessons to managers and communities from other (mainland) Yemeni conservation areas (e.g. Hawf, Bura'a and Aden wetlands). The GoY has high expectations that the proposed Socotra mainstreaming project will guide spatial planning in other (conservation) areas as well. The proposal was agreed as Yemen's top biodiversity RAF priority in a meeting of the Minister of Environment, OFP, UN Resident Coordinator and GEF regional representatives of the three Implementing Agencies on 4 February 2007. It was subsequently confirmed during the OFP's teleconference with GEFSEC in April 2007. The priority of the GoY for this project is further reflected by the 2008 national budget in which 150 000 USD (cash) of the overall GoY's 750 000 USD contribution to this initiative is inscribed.

54. The GoY agreed to UNESCO declaring the Socotra archipelago a Man and Biosphere Reserve in July 2003 and has submitted its candidature for inscription as natural Word Heritage Site in February 2007, evaluated on the ground by IUCN, with high level attention by the prime minister and various ministers, in November 2007. A decision by UNESCO is expected by July 2008.

55. The <u>National Biodiversity Strategy and Action Plan</u> was adopted by the Cabinet in January 2004. The strategy calls for a sustainable and decent standard of living for the Yemeni people while respecting the limits of nature and the integrity of creation. The strategy and action plan aims to conserve Yemen's ecosystems by developing and maintaining a comprehensive and adequate network of protected areas This will be supported by a number of other key actions including an effective coordinating management mechanism; adequately funded management plans; an improved information system; the conservation and rehabilitation of key endangered species; implementation of community-based *in-situ* conservation programmes of key endangered flora and fauna; improved knowledge and understanding of species and ecosystems; effective control and monitoring systems; and a legislative framework for the trade, use, and control of alien invasive species.

56. The <u>Environment Protection Law (1995)</u> is the primary piece of Yemeni legislation relating to the environment. Article 5 establishes the Environment Protection Council that subsequently became the Environmental Protection Authority; Article 8 instructs land-use planners to *"take into consideration the environmental factors whenever they prepare and implement land-use planning"*.

57. An important constitutional amendment was ratified in 2001 reaffirming the commitment of the people of Yemen to environment protection. Article (35) of the constitution states: "the protection of the environment is the responsibility of the state and society and is a national and religious obligation for every citizen".

58. The <u>Second Five-Year Plan (2001-2005), which is the latest approved plan</u>, adopted interventions including:

- "Restructuring of the environment-related agencies, strengthening their relations and coordination, activating the role of its institutions, and completing issuing the necessary laws and regulations that seek to protect the environment.
- Adopting the environment as a principal variable for all investment decisions, production and consumption, as well as incorporating its domains in programmes and activities in order to position it as a basic determinant in the planning process.
- Activating programmes for natural conservation parks and regions as well as preserving biodiversity.
- Advancing environmental awareness and culture campaigns addressing environmental issues while involving the private sector, NGOs and local councils in taking

responsibility of environmental protection and ensuring requirements for environmental safety.

- > Upgrading skills and capacities of those working in environmental protection and administration, and establishing an environmental protection fund to provide the necessary resources to combat contamination and to finance preventive programmes."
- 59. Yemen's governance structure generally operates at three levels:
  - a. Central (Sana'a) the Executive Branch consisting of directly elected President, appointed vice-president, prime minister and deputy prime ministers and the appointed Council of Ministers. Also includes the line Ministries (Health, Education, Water, Electricity, Agriculture, and Public Works) and administrative Ministries (Finance, Planning, Civil Service, and Local Administration). Central Authorities, such as the Environment Protection Authority (EPA) can be created with direct powers and budgets to operate on-the-ground.
  - b. Governorates there are currently 22 governorates. Each governorate has an appointed Governor, Elected Council, Administration and Executive Organs (which provide sector services). After the September 2006 elections, the President announced his intention for Governors to be elected in the future. Socotra falls under the Hadramawt Governorate, the largest governorate in Yemen. The governorate's capital is Al Mukalla, a port city on the southern coast of mainland Yemen, situated approximately 500 km from Socotra with which it is connected by a bi-weekly airline connection.
  - c. Local Districts there are currently 333 districts. Each district has an equivalent structure to the governorate, headed by an appointed District Director. After the September 2006 elections, the President announced that the new District Councils will be headed by elected district directors. This is expected to take place by the end of the year. There are two districts on Socotra Hadibo and Qualansiyah.

60. Yemen has embarked on a process of decentralization, with the promulgation of the Local Authority Law in August 2000 (Law Nº.4, 2000). This Law was implemented in February 2001 when governorate & district council elections were held for the first time in Yemen's history. Subsequent elections have been held in September 2006. The Local Authority Law seeks to decentralize the Yemeni government politically, administratively & fiscally by restructuring the distribution of mandates, functions and budgetary resources between the local and central government thereby increasing local administrative and budgetary autonomy. Prior to 1999, fiscal allocations were controlled tightly by the central government and channelled through central ministries/entities, creating delays and inefficiency in the implementation of local development projects and resulting in inflated costs. Most revenues raised at the local level through taxes and fees were transferred to the central government and disbursed through central ministries and in a few cases, through their de-concentrated branches at the local level. The new Law provides that local authorities raise their own revenues in addition to central revenues but keep the former and allocate it only for investment purposes at the local level. The Law also consolidates local authority for planning, development, and administration into one elected body – the District Local Authority – the Administrative Unit.

61. The first mainstreaming tool developed for Socotra was a 10-year development Master Plan for the Socotra Archipelago. In 1996, the GoY declared Socotra as a special natural area in urgent need of protection through Government Decree IV. This Decree also called for assistance to formulate a Master Plan for Development of the Socotra Archipelago.

62. The Yemeni Island Promotion and Development Authority is a body established primarily to develop and promote the islands of the Red Sea and Socotra for tourism. It is supposed to help in planning and implementation of development by the private sector but its mandate appears to be already covered by other Ministries and such conflict tends to render it ineffective.

# II. GEF LOGICAL FRAMEWORK

Project Strategy Goal	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
GEF Project Objective: Biodiversity management considerations are mainstreamed effectively into the current process of <i>"decentralizing governance</i> <i>for development"</i> on the Socotra archipelago	Mainstreaming Impacts: Socotra spatial plans incorporates biodiversity information provided by EPA-SCDP Number of public and private sector developments in breach of the spatial plan	Spatial planning system is not effective	Compliance with all spatial planning decisions by Island Wide and District Administrations	Strategic Planning Unit's spatial plan and integrated programmes of services Local Authority approvals EPA verification reports Site checks	Mainstreaming involves trade-offs. As these trade-offs will be made by accountable, democratic local government, the project cannot determine the final nature of the spatial plan. However it is assumed that if these decisions are made with full information and on the basis of the project's efforts to advocate and demonstrate the importance of biodiversity, then biodiversity outcomes will be achieved. It is also assumed spatial planning will be based on the 2000 Conservation Zoning Plan.
	Annual application of GEF BD2 tracking tool	Tracking tool completed at project submission	Progress demonstrated in responses at mid-year and project end	Annual Project Implementation Reports, Mid-term Evaluation Report	GEF Tracking Tool adequately captures the effectiveness of the project's mainstreaming intervention
	Biological Impacts: Distribution and population estimates of Socotra Cisticola <sup>18</sup>	Population estimated at 8,000 individuals from surveys made 1999 - 2004.	In year 5, same as or greater than baseline estimate – i.e. no net decline in Cisticola numbers or distribution.	Line-transect counts undertaken by SCDP (in-kind contribution)	Observer bias At the end of inception phase this indicator will be reviewed Other factors (e.g. climatic) that could influence Cisticola numbers independent of mainstreaming
Outcome 1: Local Governance Support	Local Governance Impacts: Island wide administration operational and working on integrated manner with local, national and international stakeholders	Limited coordination between multiple – individual Ministries & de-concentrated branches of central Authorities, from the Governorate, Local District Councils, powerful individuals/ private sector initiatives	New Island Wide local governance structure approved by end of Year 2 with appropriate coordination mechanism & advocacy in place (central & local) Single strategic planning body (at the local level) undertaking integrated planning on Socotra by	Ministerial and Presidential Decrees Minutes of Authority meetings Line ministry and local administration reports EPA reports	High-level political will is in concordance with need for Island Wide authority Vested political and financial interests do not block political and legislative process (annex – cabinet decision?) Governance reforms continue in Yemen and general progress is made towards decentralized governance for development and begins implementation (National Decentralisation Strategy approved)

<sup>&</sup>lt;sup>18</sup> This endemic species (*Cisticola haesitata*) inhabits low-growing vegetation mostly in those flat coastal areas most coveted for development opportunities and, therefore, is an excellent indicator of development pressure. It is also found in some interior plains and has recently been discovered in upland grasslands in the west of the island

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Goal					
		District level local authorities are not operating in an integrated manner and with weak capacities in mobilising resources, managing public expenditures and promoting local economic development	end of Year 3 New local district authority structures in Socotra aligned with national decentralisation strategy and working in an integrated manner with Island wide governance structures District local administration with enhanced capacities to mobilise resources, manage public expenditures, promote local economic development and tourism in line with relevant international commitments (World Heritage Status)		Socotra will have World Heritage Status

Project Strategy	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions		
Goal	Indicator	Busenne	Turget	Sources of vermeation	F		
	EPA functional assignment on Socotra	EPA carrying out community development initiatives beyond its mandate Jointly responsible for enforcing the CZP with the Ministry of Public Works & Roads	EPA working within its mandate and in a manner which is fully coordinated with other local authority functions providing technical environmental input to an island-wide integrated planning process EPA delegated authority to enforce and monitor environment obligations under the spatial plan by end of Year 4	Local Authority approved framework EPA reports	EPA has necessary resources. Trained EPA and local authorities staff will remain in post for a significant length of time after SCDP concludes		
Outcome 2: <u>Mainstreaming Tools</u> <u>Provided</u>	<u>Mainstreaming Impacts</u> : Use of mainstreaming tools provided by the project by strategic planners	Conservation Zoning Plan only used by EPA	Strategic Planning Unit to prepare necessary tools to mainstream environmental consideration into Island wide planning & decision making processes Regulations that mandate the local administration to use the planning tools and the EPA-SCDP's data as part of the Strategic Planning Unit's development of integrated programmes	Local authority pronouncements Minutes of Strategic Planning Cell meetings Local authority integrated programmes Project reports	Actual use of tools and data is assumed to be in- line with mandatory requirement, however to avoid the risk the requirement is not adhered to the project will track the use of mainstreaming tools within the Strategic Planning Unit Political Will at local, national levels to enact and adhere to relevant environmental regulations		

Project Strategy Goal	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome 3: <u>NGO Advocacy</u> <u>Strengthened</u>	Local community biodiversity management impacts: Number of NGOs/CBOs/ community development associations on Socotra involved in biodiversity management	1 NGO actively involved	20 NGOs/CBOs active by end of Year 4 involved	NGO annual reports.	Commitment of enabling institutions to allow NGO/CBOs to operate autonomously
	Capacity of NGOs /CBOs/ community development associations on Socotra to manage biodiversity	1 NGO able to function independently	20 NGO/CBOs to function independently by the end of Year 4	Capacity assessment score reports at years 1 and 4	Donors base their priorities on NGO/CBO demands
	Small grants allocated to local NGOs/CBOs by GEF SGP, COMPACT, or other donors	1 at start of Year 1 <sup>19</sup> .	20 grants allocated by Year 4	SGP evaluations and reports NGO/CBO reports	World Heritage status granted to Socotra by UNESCO and hence COMPACT can commence during lifetime of this project
	Capacity of Socotra Conservation Fund to act as an Intermediary Support Organisation	SCF is not capable of acting as an Intermediary Support Organisation	Capacity of SCF to act technically in an autonomous manner as an intermediate support organisation at end of Year 2.	Capacity assessment score reports at years 1 and 2	

<sup>&</sup>lt;sup>19</sup> A single project proposal had been completed for funding at the time of project formulation mission. No others were reportedly in the pipeline, however this will be verified during the inception period

Project Strategy Goal	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Outcome 4: <u>Strengthened Link Between</u> <u>Biodiversity Local Benefits</u> and Conservation Outcomes	Higher     revenues     that     local       administration     derive natural resources     from exploitative assets of the Island       No. of sustainable     private initiatives     including SMEs and higher income for       local     communities     resulting     from       sustainable     trade     of     biological       specimens     specimens     specimens     specimens	Limited benefits for rural communities	Regulationsand enforcementin place to allow private communal initiativesto exportinitiativestoexportbiologicalspecimens under certificationRegulations to allow local authoritiestoauthoritiestomobilize revenuesrevenuesfrom tourist activitieseitherincomingtourist or through service providers and guidelines that enable local communities, 	No. of certifications by EPA Local authority reports	If enforcement mechanisms are weak exploitation will increase. World market is growing; growth of eco-tourism will continue. Conditions in Yemen are conducive to tourism in Socotra
Outcome 5 Project Management	Delivering of activities and funds in a timely, effective and transparent manner		Project activities carried out in a timely, efficient and transparent manner allowing for justifiable contingencies Work Plan approved in inception phase	UNDP Atlas Project Management Module Risk log, issue log updated monthly Quarterly Progress Reports Project Board meets every six months (minutes of meetings) Annual Review Report Annual Project Review	Assumes the Atlas Project Management Module will be diligently maintained by UNDP-Yemen and the project team. Political changes will not alter Government of Yemen commitment to project

# III. ANNUAL WORK PLAN BUDGET SHEET

# YEAR: 2008 – 2013 (SEE EXCEL SHEET ATTACHED FOR TOTAL BUDGET WORK PLAN AND ANNUAL WORK PLAN PER YEAR)

Total Budget and W	ork Plan
Award ID:	tbd
	Strengthening Socotra's Policy and Regulatory Framework for
Award Title:	Mainstreaming Biodiversity
Business Unit:	tbd
Project Title:	Country Name Project Title
Project ID: PIMS	
no	1913
Implementing Partner	
(Executing Agency)	Ministry of Water and Environment

GEF Outcome/Atlas Activity												
	<b>Responsible Party/</b> Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See budget notes
				71200	International Consultants	\$36,000	\$18,000	\$4,200	\$0	\$4,200	\$62,400	
		(2000	CEE	71300	Local Consultants	\$5,486	\$5,486	\$0	\$0	\$0	\$10,972	
		62000	GEF	71600	Travel	\$20,800	\$13,200	\$11,890	\$8,000	\$9,238	\$63,128	
				71200	Miscellaneous	\$9,000	\$4,500	\$0	\$0	\$0	\$13,500	
OUTCOME 1: Local Governance Support	GOV				sub-total GEF	\$71,286	\$41,186	\$16,090	\$8,000	\$13,438	\$150,000	
Governance Support				71200	International Consultants	\$18,000	\$18,000	\$0	\$0	\$0	\$36,000	
				71300	Local Consultant	\$0	\$24,000	\$24,840	\$24,840	\$24,840	\$98,520	
			UNDP	71300	Local Consultants	\$0	\$46,200	\$95,634	\$98,981	\$102,446	\$343,261	
				71300	Local Consultants	\$0	\$0	\$0	\$0	\$0	\$0	

				71600	Travel	\$13,619	\$13,271	\$0	\$0	\$0	\$26,890	
				745000	Miscellaneous	\$14,202	\$18,702	\$14,202	\$14,202	\$14,204	\$75,512	
				71300	Local Consultants	\$0	\$18,000	\$18,630	\$20,493	\$22,542	\$79,665	
					sub-total UNDP	\$45,821	\$138,173	\$153,306	\$158,516	\$164,032	\$659,848	
					Total Outcome 1	\$117,107	\$179,359	\$169,396	\$166,516	\$177,470	\$809,848	
				71300	Local Consultants	\$14,400	\$0	\$0	\$0	\$0	\$14,400	
				71200	International Consultants	\$18,000	\$0	\$0	\$0	\$0	\$18,000	
				71200	International Consultants	\$12,000	\$0	\$11,250	\$0	\$0	\$23,250	
OUTCOME	OUTCOME	62000	GEF	71200	International Consultants	\$9,600	\$9,600	\$9,600	\$9,600	\$9,600	\$48,000	
2:Mainstreaming tools				71600	Travel	\$16,000	\$19,272	\$5,800	\$0	\$0	\$41,072	
				74500	Miscellaneous	\$40,565	\$17,400	\$33,066	\$12,400	\$12,400	\$115,831	
				71300	Local Consultants	\$16,458					\$16,458	
				71300	Consultants	\$12,000	\$13,200	\$14,520	\$15,972	\$17,569	\$73,261	
					sub-total GEF	\$139,023	\$59,472	\$74,236	\$37,972	\$39,569	\$350,272	
					Total Outcome 2	\$139,023	\$59,472	\$74,236	\$37,972	\$39,569	\$350,272	
	GOV				Contractual services	\$260,000	\$0	\$0	\$0	\$0	\$260,000	
		62000	GEF	70400								
OUTCOME 3:Strenghening NGO					sub-total GEF	\$260,000	\$0	\$0	\$0	\$0	\$260,000	
Advocacy			UNDP -	72500	Office Supplies	\$50,000	\$0	\$0	\$0	\$0	\$50,000	
			UNDP		sub-total UNDP	\$50,000	\$0	\$0	\$0	\$0	\$50,000	
					Total Outcome 3	\$310,000	\$0	\$0	\$0	\$0	\$310,000	
OUTCOME 4: Biodiversity Livelihood	GOV	62000	GEF	71200	International Consultants	\$18,000	\$9,000			\$	\$27,000	

Values				71300	Local Consultants	\$16,458	\$9,880	\$10,800	\$11,100	\$0	\$48,238	
				74500	Miscellaneous	\$4,500	\$12,250	\$10,000	\$10,000	\$0 \$0	\$36,750	
				71300	Consultants	\$8,943	\$8,229	+-0,000	+-0,000		+++++++++++++++++++++++++++++++++++++++	
				71600	Travel	\$13,280	\$3,200	\$1,680	\$	\$1,680	\$19,840	
					sub-total GEF	\$61,181	\$42,559	\$22,480	\$21,100	\$1,680	\$131,828	
				71200	International Consultants	\$8,400	\$0	\$8,400	\$0	\$0	\$16,800	
				74500	National Consultants	\$12,579	\$11,679	\$12,998	\$13,996	\$15,000	\$66,252	
				74500	Miscellaneous			\$2,100				
			UNDP		sub-total UNDP	\$20,979	\$11,679	\$23,498	\$13,996	\$15,000	\$83,052	
					Total Outcome 4	\$82,160	\$54,238	\$45,978	\$35,096	\$16,680	\$214,880	
				71400	Contractual services	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$85,000	
		62000	GEF		sub-total GEF	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$85,000	
Outcome 5: PM unit	GOV			71400	Contractual services	\$26,004	\$26,004	\$26,004	\$26,004	\$26,004	\$130,020	
	007		UNDP	71600	Travel	\$9,996	\$9,996	\$9,996	\$9,996	\$9,996	\$49,980	
					sub-total UNDP	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$180,000	
					Total Management	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$265,000	
				PR	OJECT TOTAL	\$701,290	\$346,069	\$342,610	\$292,584	\$286,719	\$1,950,000	
10% GEF ( US \$												

10% GEF ( US \$ 975,000)

L

\$97,500

\$2,047,500

#### Summary of Funds: [2]

GEF	\$548,490	\$140,945	\$129,806	\$84,072	\$71,687	\$975,000
UNDP	\$178,900	\$162,452	\$211,904	\$207,612	\$214,132	\$975,000
NGO in-kind	\$25,000	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	\$25,000
Gvt	\$99,598	\$237,521	\$178,200	\$120,198	\$114,483	\$750,000
TOTAL	\$851,988	\$540,918	\$519,910	\$411,882	\$400,302	\$2,725,000

[1] Only cash co-financing actually passing through UNDP accounts should be entered here and in Atlas. Other co-financing should NOT be shown here.

[2] Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc. etc

### **BUDGET NOTES**

OutcomeS 1 & 2&4 Miscellaneous 74500 National local governance training workshops: stakeholder workshops:

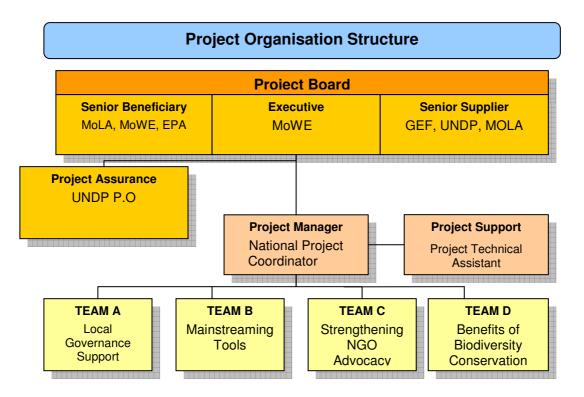
Travel 71600 National consultants will only travel locally All int travel is according to UNDP Yemen DSA rates

Outcome 3 **Contractual Services**  70400

# Expected to include: 1. Study into the capacity needs of SCF, 2. Identification - Selection of production associations (pastoralists, fishermen) 3. Capacity building of associations (protected area, women, ecotourism) and other CBOs in terms of (a) Effective representation to the local authorities (b) Project formulation skills (c) Project management skills (financial administration).

\*\* For further details please see component 1 worksheets and component 2,3,4,5, worksheet

### IV. MANAGEMENT ARRANGEMENTS



GEF and UNDP have been requested by the Government to provide technical and substantive assistance in setting-up the project. UNDP is in a prime position to assist the Government through its ability to build partnerships, coordinate between the various parties involved, obtain knowledge from global experiences, develop capacities and assist with fund raising efforts.

The project will be Nationally Implemented in accordance with the established UNDP procedures. The responsible party will be the Ministry of Water & Environment.

A Project Board will be established to oversee the implementation of the project (See Annex 1). The Project Board will be chaired by the Ministry of Water and Environment and representatives will include Ministry of Planning and International Cooperation, Ministry of Local Administration, EPA, Socotra District Directors and the Regional Representative of UNDP/GEF. Membership in the Board should ensure gender balance to the extent possible. The Project Board should meet at least once every six months.

UNDP will be the Secretariat of the programme and in charge of the overall monitoring of the project ensuring the achievement of results.

UNDP will recruit a National Project Coordinator (NPC) and a Technical Project Assistant (See Annex 2, 3).

The NPC will provide coordination advice between all components of the project to relevant counterparts. The NPC will be responsible for implementing the project activities and will be accountable to the Project Board. S/he will be responsible for preparing a detailed project work plan and budget, reporting the day-to-day activities and progress of the project, and submitting quarterly progress and financial reports to UNDP and the Project Board. S/he will also be responsible for managing the project's finances according to acceptable, standard UNDP financial management rules and regulations and for maintaining all documentation related to the project. Any changes in the milestones and outputs of the project will be discussed with and agreed upon by the Project Board.

The project will recruit local and international environment and local governance experts for shortterm periods throughout the duration of the project (See Annex 4).

UNDP will be responsible for the recruitment and contracting of project staff based on mutual agreement with the Ministry and will be responsible for the purchase of non-expendable equipment in accordance with UNDP rules and procedures. The MoWE will provide office space, transportation, meetings and assign qualified counterparts to the project components.

# V. MONITORING FRAMEWORK AND EVALUATION

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

### Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- > An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (See annex 5), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Quarterly Progress Reports (QPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- a project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

### Annually

- Annual Review Report. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- Annual Project Review. Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.
- The impact of the project should be measured in terms of reduced loss of (endemic and otherwise special) species and more indirectly in a reduced deterioration of the condition of the (mainly terrestrial) habitats. This will, most probably, only become tangible after project completion, and is difficult to measure (because of lack of 'with versus without' comparison). There is an ongoing monitoring system based on inventories prepared by SCDP and its partners over the last few years. This holds notably for the Atlas of Breeding Birds (including the ten endemics), prepared with BirdLife international (on a 10 x10 km grid) as well as more detailed transect counts in the island's principal habitats. A digitalized distribution atlas of plants has been prepared in collaboration with the Royal Botanic Garden Edinburgh, whereas about 300 observation points by SCDP, RBGE and

Rome University serve as base for future monitoring of vegetation composition and condition.

# Project Implementation Review (PIR)

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, a Project Implementation Report must be completed by the CO together with the project.

### Independent Evaluations

In accordance with UNDP-GEF M&E procedures, the project will be subjected to at least two independent external evaluations as follows:

- Mid-term Evaluation. An independent Mid-Term Evaluation (MTE) will be undertaken in the third year of implementation. The MTE will determine progress being made towards the achievement of outcomes and will identify course correction if needed. 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 final half of the project's term.
- Final Evaluation. An independent Final Evaluation will take place three months prior to the end of the project, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at 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 UNDP-Yemen based on guidance from the UNDP-GEF Regional Coordinating Unit.

### Audit Clause

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.

# VI. LEGAL CONTEXT

This programme document shall be the instrument referred to as such in Article 1 of the SBAA between the Government of (country) and UNDP, signed on 11 April 1977 and reconfirmed by the Republic of Yemen on 22 May 1990. Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

The following type of revision may be made to this programme document with the signature of the UNDP's RR, provided he or she assured that the other parties involved in the programme have no objections to the proposed changes:

- i. Revisions in, or addition of, any of the annexes of the programme document
- ii. Revisions, which do not involve significant changes in the immediate objectives, outputs or activities of the programme, but are caused by the rearrangement of inputs already agreed to or by cost increased due to inflation.
- iii. Mandatory annual revisions which reface delivery of agreed programme inputs, agency expenditure flexibility, and
- iv. Semi-final and final budget revisions based on Combined Delivery Reports (CDRs) signed by the National Programme Manager
- v. Semi-final and final budget revisions based on Combined Delivery Reports (CDRs) signed by the Programme Manager

# VII. ANNEXES

### ANNEX 1 – TERMS OF REFERENCE: THE PROJECT BOARD

The Project Board will include a number of concerned groups below and will act as a planning body. The Board will be chaired by the Ministry of Water and Environment and will be responsible for monitoring the project progress towards results. The Project Board meeting should be preceded by an agenda of such issues and should meet every six months. Members should include representatives of the following organizations:

- Ministry of Water and Environment
- Ministry of Planning and International Cooperation
- Ministry of Local Administration
- Socotra District Directors
- Regional Representative GEF/UNDP
- National Project Coordinator

#### The Project Board's Responsibilities:

- 1. Provide overall guidance and direction to the project.
- 2. Review and approve the annual and the quarterly work plan prepared by the project management.
- 3. Review work progress at the quarterly meetings to be held and follow-up on the project.
- 4. Provide recommendations and orientation to the project execution to solve any emerging issues.
- 5. Approve any changes needed during project implementation.
- 6. Advise on key strategic & policy issues
- 7. Develop a communications plan
- 8. Advise on exit strategy

### ANNEX 2 - TERMS OF REFERENCE: NATIONAL PROJECT COORDINATOR

Title of Post:	National Project Coordinator
Duty Station:	Sana'a
Duration:	5 years

### Background

Under the framework of the project above, the National Project Coordinator will supervise the project's overall implementation and report to the Project Board. S/he will be accountable for delivering all the activities of the project and ensuring that expenditures are in line with the project activities.

### **Duties and Responsibilities**

- Provide leadership and strategic thinking to ensure proper implementation of project activities
- Overall management and planning of the implementation of the project's outputs and activities
- Manage and administer the day-by-day operations to ensure the effective implementation of the activities of above mentioned project
- Initiate coordination with relevant national organizations, private sector companies and civil society initiatives where necessary
- Undertake all necessary financial arrangements, processes, request for authorizations, payments and ensure financial accountability
- Ensure the formulation of the Project Board
- Arrange and coordinate the Project Board and act as Secretariat of the Committee.
- Prepare the work plan, quarterly, progress, annual reports and Terminal Report.
- Undertake any other related tasks at the request of the Project Board
- Supervise all staff assignment and consulting agreements.

### Competencies

- Substantive experience working in environment, decentralization in Yemen
- Demonstrates strong oral and written communication skills
- Sound experience in partnership building with clients and external actors
- Great familiarity with environment initiatives and stakeholders in Yemen
- Ability to lead strategic planning, results-based management and reporting
- Focuses on impact and result for the client and responds positively to feedback Demonstrates openness to change and ability to manage complexities

### **Qualifications and Experience**

- 7 years working experience preferably in the field of environment in Yemen
- 5 years experience in project management in the public or private sectors.
- Advanced university degree in environment, international development
- Proficiency in English and Arabic Languages spoken and written.
- Excellent communication skills.
- Resourcefulness and strong networking skills

### ANNEX 3 - TERMS OF REFERENCE: TECHNICAL PROJECT ASSISTANT

Title of Post:	Technical Project Assistant
Duty Station:	Sana'a
Duration:	5 years

#### Background

Within the framework of the project above, the Technical Project Assistant will operate under the overall guidance of the National Project Coordinator in carrying out communications, logistical and the administrative arrangements pertaining to the project.

#### **Duties and Responsibilities**

- Produce public relations materials, edit reports and assist with planning, publicizing and carrying out training activities and stakeholder consultations for the project
- Participate in and facilitate training and workshops as appropriate
- Act as a communications focal point for the project including management of press and other media inquiries
- Support the National Project Coordinator in the day-by-day operations to ensure the effective implementation of the activities of above mentioned project
- Initiate coordination with relevant national organizations, private sector companies and civil society initiatives where necessary
- Undertake necessary administrative assignments as requested by the National Project Coordinator.
- Assist the National Project Coordinator in preparing reports, correspondences, and any other material needed.
- Organize and maintain up-to-date documentation of all files and documents related to the project (both paper and electronic).
- Perform other related duties as requested by the National Project Coordinator.

#### **Qualifications and Experience**

- Degree in development studies/communications or equivalent
- At least 3 years work experience in the field of project management, public information and communication
- Proficiency in English and Arabic Languages spoken and written.
- Excellent communication skills.
- Resourcefulness and strong networking skills

# ANNEX 4 - TERMS OF REFERENCE: TECHNICAL CONSULTANTS 20

### COMPONENT 1. LOCAL GOVERNANCE SUPPORT

### 1.1. Advisors for the establishment of the island-wide authority

### 1.1.1. International Institutional Development Advisor

### General purpose of the post

The IIDA is expected to draft, through a participatory process that engages key local and national stakeholders, a project proposal for the set-up of an island-wide authority to plan and coordinate strategic development interventions in Socotra in an environmentally sensitive manner. The project proposal should include required coordination arrangements between local and national authorities, and be sensitive to the international commitments that Yemen will be signing to if and once Socotra is designated a World Heritage Site.

The advisor is also expected to provide technical support for the purpose of establishing and activating the authority (if and once agreed upon), in coordination with a national legal advisor and the project coordinator.

#### Main deliverables

- A project proposal for the establishment of the Island-wide authority in Socotra (Year 2), specifying:
  - Mandate and functions
  - Organizational structure
  - Internal processes, guidelines for line and staff procedures
  - Staffing requirements and job descriptions
  - Capacity-development/training requirements
  - Coordination arrangements, advocacy tools
  - Tools and facilities (including IT equipment, softwares)
  - Financial management and fund-raising strategy
  - Detailed implementation plan and budget for the set-up and activation of the authority.
- Two reports on the progress achieved in the establishment and activation of the authority, constraints encountered and recommendations (Years 3, 5).
- Quarterly progress briefings to the Project Manager (Years 1,2,3,5).

#### Required profile (Key descriptors)

- Post-graduate studies in the relevant field.
- At least 5 years of relevant experience in institutional development.
- At least 2-3 years of experience dealing with institutional and/or management challenges associated with the preservation and/or development of World Heritage Sites/environmentally sensitive areas.
- Disposition and ability to work as part of a team.
- Sound oral and written communication skills in English. Arabic language skills are desirable.

### 1.1.2. Local Legal Advisor

#### General purpose of the post

To draft the regulatory instruments required to set up an activate the island-wide authority, in accordance with the vision agreed to, and in line with the project proposal endorsed by, the concerned national and local stakeholders.

#### Main deliverables

Draft of the regulatory instruments required for the set-up and activation of the island-wide authority.

### Required profile (Key descriptors)

- Law professional (required), with the relevant post-graduate studies (desirable).
- Sound understanding of legal/regulatory processes in Yemen.

<sup>&</sup>lt;sup>20</sup> Female candidates will be strongly encouraged to apply for these positions, as part of a gender-sensitive recruitment policy.

- At least 5 years of experience drafting legal and/or regulatory instruments
- Fluent in arabic, first-class writing skills.
- Disposition/ability to work as part of a team.
- Sound communication skills; first-class writing skills (Arabic required, English desirable).

### 1.2. Island-wide authority personnel<sup>21</sup>

### 1.2.1. Executive Director

### General purpose of the post:

The Executive Director will be responsible for the overall management of the island-wide authority, and for ensuring that its goals and objectives are achieved in an efficient manner. He/she will be accountable to the authority's governing body.

### Main deliverables (Island-wide authority)

- Environmentally sensitive, island-wide, strategic development plans.
- Formalized coordination arrangements and strategic partnerships with national and local stakeholders.
- Project proposal for strategic development interventions.
- Periodic reports on Socotra development and environmental status.

### Required profile (key descriptors)

- The Executive Director should have:
  - (i) either a postgraduate degree in management/administration or related fields, and at least 5 years of substantive experience in projects/programs related to sustainable development or environmental conservation,
  - (ii) or a postgraduate degree in environmental sciences or related fields, and at least 7years of experience in management/administration at a senior level.
- Ability to liaise effectively with national and local stakeholders.
- Demonstrated affinity with environmental management and / or conservation
- Good oral and written communication skills in Arabic and English. Knowledge of Socotri language will be considered an advantage.

### 1.2.2. Planning Specialists\*

### General purpose of the post

To technically guide the formulation, review and up-date of the island-wide strategic development plan, and the corresponding spatial plans, and to follow-up the extent to which the plans are being adhered to by the relevant stakeholders in a coordinated manner, and propose corrective measures if and when required. The planning specialists will work closely with Socotra's District Authorities to ensure that the island-wide and district-level plans and investment programs are adequately integrated. He/she will also ensure that environmental and bio-diversity considerations are mainstreamed throughout the planning process (see Terms of Reference of the Environmental Advisor).

### Main deliverables

- Up-to-date situational analyses of the developmental and environmental conditions in the island.
- Drafts of island-wide strategic development plans (through a participatory process engaging local and national stakeholders).
- Follow-up reports on the level of implementation of the strategic plans, and identification of obstacles encountered.

### <u>Required profile</u> (key descriptors)

- Postgraduate degree in Planning, Management or related fields.
- At least 5 years of experience in planning.
- Good communication skills (oral and written) in Arabic; English language skills are highly desirable.
- Ability/disposition to work as part of a team.

<sup>&</sup>lt;sup>21</sup> These posts are tentative in nature; the project proposal for the establishment of the island-wide authority, expected to be submitted in year 2, will define the staffing requirements more precisely, and will also present more detailed terms of reference for each of the positions to be filled. These positions are indicative for initial planning and budgetary purposes.

# 1.2.3. Environmental Specialist\*

### General purpose of the post

To provide technical guidance to the process of mainstreaming environmental and bio-diversity considerations into the island-wide strategic and spatial planning processes, and to ensure that the required technical inputs are made available to inform decision-making. To follow up the extent to which environmental and biodiversity considerations are being adhered to, in coordination with EPA, and support the application of the mainstreaming tool amongst public entities intervening in the island.

### Main deliverables

- Regular reports on the status of environmental conditions in Socotra.
- Analysis of changes in Socotra's biodiversity.

### Required profile (key descriptors)

- Postgraduate degree in environmental sciences or related fields.
- At least 5 years of experience working in environmental/biodiversity-related programs/projects.
- Knowledge of the Socotra environment will be considered an advantage
- Good communication skills (oral and written) in Arabic and English
- Ability/disposition to work as part of a team.

#### 1.2.4. <u>Community Liaison Officer</u> General purpose of the post

To promote and facilitate the active engagement of local communities in the island-wide strategic and spatial planning processes, in coordination with District Local Authorities, and to ensure that the decision-making processes in the authority are adequately informed by community-sensitive considerations.

### Main deliverables

- Workshops, consultative meetings with Local Councilors and community leaders.
- Community-based surveys and analyses to inform decision-making in the strategic and spatial planning processes.
- Local media briefings.
- Information/public awareness material (leaflets, newsletters, etc.).
- Regular "State of the community" reports.

### Required profile (key descriptors)

- Postgraduate degree in social sciences or related fields.
- At least 5 years of relevant experience dealing with communities/community-based organizations.
- Good communication skills (oral and written) in Arabic; English and Socotri language skills are highly desirable.
- Ability/disposition to work as part of a team.

# 1.2.5. Administrative Officer/Accountant

### General purpose of the post

To administer the internal operations of the island-wide authority, in accordance with the guidelines and instructions of the Executive Director (including operational planning and budgeting, financial management and accounting, procurement and personnel management).

### Main deliverables

- Periodic procurement plans; purchase orders
- Quarterly accounting reports
- Annual financial reports
- Personnel files
- Periodic reports on training requirements

### <u>Required profile</u> (key descriptors)

- Postgraduate degree in administration/management.
- At least 5 years of relevant administrative experience

- Good communication skills (oral and written) in Arabic; English language skills are highly desirable.
- Ability/disposition to work as part of a team.

# 1.2.6. Executive Assistant/Translator

# General purpose of the post

To provide administrative and operational assistance to the Executive Director in the tasks associated with his/her post, and to provide translation and interpretation services (English-Arabic, and Arabic-English), if and when required.

#### Main deliverables

Administrative in nature - as requested by the Executive Director.

#### Required profile (key descriptors)

- Undergraduate degree.
- At least 3 years of relevant administrative experience.
- At least 2 years of experience in translation and interpretation.
- Excellent communication skills (oral and written) in Arabic and English.

# 1.2.7. Logistics Officer (Central Unit)

General purpose of the post

To provide logistical support to the operations of the central monitoring and advocacy unit that will set up to support the activities of the island-wide authority.

#### Main deliverables

As requested by his/her immediate supervisor.

### <u>Required profile</u> (key descriptors)

- Secondary school graduate.
- At least 3 years of relevant experience.

### 1.3. District facilitation teams (capacity-building on Public Expenditure Management)

#### 1.3.1. <u>District Facilitation Team Leader</u> General purpose of the post

To coordinate the activities of the District Facilitation Team (DFT) members, facilitate the execution of their role in pilot district authorities in Socotra and ensure that all the activities of UNDP's decentralization program in the island receive the necessary support at all levels of program operations. He/she will also be in a position to support training of trainer activities, and to provide training directly to District Local Authorities on Public Expenditure Management (following the technical guidelines provided by UNDP's decentralization project), as required. He/she will pay particular attention to the need to ensure that island-wide and district-level planning processes are well-integrated.

#### Main deliverables

- A detailed work plan for the DFT as well as for each of the DFT members, in coordination with the Field Operations Manager (FOM) at UNDP's Decentralization Project.
- Monthly and quarterly reports on DFT activities.
- District-level annual development report, annual plans, annual investment program, and budget, undertaken in a participatory manner, engaging Local Authorities councilors, administrative and executive organ staff, as well as local community stakeholders.
- Quality assessments undertaken against recommended PEM methodologies.

### Required profile (key descriptors)

- At least 5 year-tenure in the public sector, preferably in Local Administration.
- Good communication skills (oral and written) in Arabic; English language skills are desirable.
- Ability to prepare clear reports and to make oral presentations.
- Knowledge of the local authority system and procedures at both governorate and district level are highly recommended.
- Knowledge of and working experience in training methodologies.

- Ability to adjust capacity building and technical support content and methodology to the audience and local conditions.
- Good sense of organization and leadership; ability to supervise personnel.

# 1.3.2. District Facilitation Team members

# General purpose of the post

To provide pilot district authorities (Elected Council, District Administrative Unit and Executive Offices) with formal training and on the job training on procedures and methodologies within the PEM cycle (budgeting, tendering and implementation, local financial management, and revenue administration). The goal of this effort is ensuring accurate allocation of district resources towards the improvement of basic service delivery and the promotion of local environmentally sustainable economic development and the alleviation of poverty through increased efficiency, effectiveness, and economy in the process of implementation of the pilot districts' development plans and annual investment programs.

### Main deliverables

- Annual work plans prepared and agreed-to by DFT Team Leader
- Innovative and new institutional units piloted and experience documented.
- Monthly submission of filled daily monitoring sheet and monthly/quarterly reports on progress against work plan and contributions to DFT Team Leader.
- Draft capacity development plan for the assigned pilot districts submitted to the DFT Team Leader.

### Required profile (key descriptors)

- Good communication skills and resourceful team player.
- At least 2-3 year tenure in the public sector, preferably in local administration.
- Good communication skills (oral and written) in Arabic; English language skills are desirable.
- Knowledge of the local authority system and procedures at both governorate and district level are highly recommended.
- Knowledge of and working experience in training methodologies.
- Ability to adjust capacity building and technical support content and methodology to the audience and local conditions.

### 1.4. Development of new capacity-building modules

### 1.4.1. LED Advisor

To design, in a participatory manner, technical guidelines and manuals to support the development of Local Authorities capacities to promote Local Economic Development. The guidelines and manuals ought to be sensitive to the institutional and capacity constraints in the pilot Authorities; to provide advice on the activation of function pertaining to Sustainable Local Economic Development.

### Main deliverables

- Guidelines and manual on Sustainable Local Economic Development for Local Authorities.
- Advisory note on the activation of the Local Economic Development function in the Districts of Hadebo and Qalansiya.

### Required profile (key descriptors)

1. Postgraduate degree in economics, local development or related fields.

2. At least 7 years of experience in the field of local development; expertise in local economic development policies.

3. At least 2 years of work experience in developing countries.

4. Sound oral and written communication skills in English. Arabic language skills are desirable.

### 1.4.2. Urban/town management advisor

### General purpose of the post

To design, in a participatory manner, technical guidelines and manuals to support the development of Local Authorities capacities to promote sustainable urban/town management. The guidelines and manuals ought to be sensitive to the institutional and

capacity constraints in the pilot Authorities; to provide advice on the activation of function pertaining to sustainable urban/town management.

### Main deliverables

- Guidelines and manual on Urban/Town management for Local Authorities.
- Advisory note on the activation of the functions pertaining to sustainable urban/ town management in the Districts of Hadibo and Qalansiya.

### <u>Required profile</u> (key descriptors)

- Either
  - (i) a postgraduate degree in urban management or related fields, and at least 5year of relevant experience.
  - (ii) undergraduate degree in architecture, urban management or related fields, and at least 10 years of experience in urban management.
  - At least 7 years of experience in the field of local development; expertise in local economic development policies.
  - At least 2 years of work experience in developing countries
  - Sound oral and written communication skills in English. Arabic language skills are desirable.

### 1.4.3. Adult Education Specialist

#### General purpose of the post

To develop training materials for the effective delivery of the guidelines and procedures contained in the manuals developed by the Local Economic Advisor, and the Urban/Town management advisor; to provide technical guidance as to effective delivery strategies.

#### Main deliverables

- Trainers' manual on Local Economic Development
- Trainees' material on Local Economic Development
- Trainers' manual on Urban/Town Management
- Trainees' material on Urban/Town Management

#### <u>Required profile</u> (key descriptors)

- Proven academic background in the field of adult education.
- At least 3 to 4 years of experience in the design of learning materials and training modules in cross cultural settings, preferably in the context of decentralization/local government reform.
- At least 2 years of work experience in developing countries.
- Sound oral and written communication skills in English. Arabic language skills are desirable.

#### **COMPONENT 2. MAINSTREAMING TOOLS**

#### 2.1 EPA personnel (Protected Area specialist)

#### General purpose of the post

In consultation with concerning communities, formulation of management plans, based on the Conservation Zoning Plan of individual protected areas. Those national parks (and areas of special botanic interest), will be targeted that will be influenced by out-side developments (roads, port and other large infrastructural works).

#### Main deliverables

- Workplan with proposed areas and time schedule.
- Assist in the formulation of mainstreaming tools
- Organization of consultation sessions with concerning communities
- Draft Protected Areas management plans

#### Required profile (key descriptors)

• Experience in the formulation and implementation of management plans, based on community consultation and facilitation.

- Good oral and written communication skills in Arabic and English.
- Ability/disposition to work as part of a team.

### 2.2 GIS consultant (part-time)

### General purpose of the post

Assisting the technical project teams with spatial information and materials that support the development of mainstreaming tools

### Main deliverables

- GIS-derived training products
- GIS-derived mainstreaming tools

### **Required profile** (key descriptors)

- Sound skills in GIS (various software packages) and its use in natural resource management.
- Good oral and written communication skills in Arabic and English.
- Ability/disposition to work as part of a team.

### 2.3 National Legal Advisor

### General purpose of the post

Preparation of necessary regulation and by-laws that the full implementation of the Conservation Zoning Plan (presidential degree 275, 2000, Cabinet decree 45, of 2008).

### Main deliverables

 Mainstream tools, responsible in particular for their compatibility with national laws and regulations.

### Required profile (key descriptors)

- Law professional (required), with the relevant post-graduate studies (desirable).
- Sound understanding of legal/regulatory processes in Yemen.
- At least 5 years of experience drafting legal and/or regulatory instruments
- Sound communication skills; first-class writing skills (Arabic required, English desirable).
- Affinity with environmental management
- Ability/disposition to work as part of a team.

### 2.4 Focal point Component 2.

### General purpose of the post

General Management of component 2 (mainstreaming tools) in Year 1. This post is scheduled to be taken over by Env. Advisor of the island-wide authority (see component 1) in Yr 2-5.

### Main deliverables

- Progress reports to Project coordinator
- Provides feed-back to Consultants/ other personnel and their reports

### Required profile (key descriptors)

- Postgraduate degree in environmental sciences or related fields.
- At least 5 years of experience working in environmental/biodiversity-related programs/projects.
- Knowledge of the Socotra environment will be considered an advantage
- Good communication skills (oral and written) in Arabic and English
- Ability/disposition to work as part of a team.

### 2.5 Environmental Planning Advisor (international)

#### General purpose of the post

Providing first-class advice to the preparation of CZP mainstreaming tools

#### Main deliverables

• Mainstreaming tools of the 2000 Conservation Zoning Plan, in line with other reigning legislative and regulatory framework and compatible with international requirements (in particular UNESCO- World Heritage Site status).

### Required profile (key descriptors)

- Post-graduate degree in Natural Resource Management Planning
- Profound experience with mainstreaming biodiversity into the governance of sensitive high profile conservation areas (World Heritage Sites or comparable)
- Excellent oral and written communication skills in English. Arabic language skills are desirable.
- Disposition and ability to work as part of a team.

### 2.6 Adult Education Specialist (international)

#### General purpose of the post

To develop training materials for the effective delivery of the guidelines and procedures contained in the manuals developed by the Environmental Planning Advisor; to provide technical guidance as to effective delivery strategies.

#### Main deliverables

- Trainers' manual on Mainstreaming CZP
- Trainees' material on Mainstreaming CZP

### Required profile (key descriptors)

- Proven academic background in the field of adult education.
- At least 3 to 4 years of experience in the design of learning materials and training modules in cross cultural settings, preferably in the context of decentralization/local government reform.
- At least 2 years of work experience in developing countries.
- Sound oral and written communication skills in English and Arabic language skills are desirable.

### **COMPONENT 4. BIODIVERSITY LIVELIHOOD VALUES**

### 4.1 Component 4. Focal point

#### General purpose of the post

General management of component 4. (biodiversity livelihood values)

#### Main deliverables

- Progress reports to Project coordinator
- Provides feed-back to Consultants/ other personnel and their reports

#### <u>Required profile</u> (key descriptors)

- Degree in environmental sciences or related fields.
- At least 5 years of experience working in environmental/biodiversity-related programs/projects.
- · Knowledge of the Socotra environment will be considered an advantage
- Good communication skills (oral and written) in Arabic and English
- Ability/disposition to work as part of a team.

#### 4.2 National Legal Advisor

#### General purpose of the post

Assisting technical team (including international Environmental Law advisor) with the preparation of necessary regulatory framework and by-laws allowing export of biological materials upon certification.

#### Main deliverables

• Regulations and by-laws allowing export of biological materials off Socotra upon certification, consistent with national law and regulations.

#### Required profile (key descriptors)

- Law professional (required), with the relevant post-graduate studies (desirable).
- Sound understanding of legal/regulatory processes in Yemen.
- At least 5 years of experience drafting legal and/or regulatory instruments
- Fluent in Arabic, first-class writing skills.
- Sound communication skills; first-class writing skills (Arabic required, English desirable).
- Affinity with environmental management
- Ability/disposition to work as part of a team.

#### 4.3 EPA personnel (export control – monitoring)

#### General purpose of the post

Assuring the organization that is made possible by a new regulatory frame work on the export of biological materials (certification)

#### Main deliverables

- Certification of plant export
- Training of relevant personnel at airport and port
- Monitoring plan of exploited plants and other biological materials

### Required profile (key descriptors)

- Sound knowledge of Socotra flora and fauna
- Monitoring skills
- Training skills
- Good oral and written communication skills in Arabic and English.
- Ability/disposition to work as part of a team.

#### 4.4 National Fiscal Advisor

#### General purpose of the post

Preparing regulations related to taxing system, (of non-resident visitors to the island).

#### Main deliverables

- Regulatory framework that allows the taxing of visitors
- Other taxing framework, if necessary.

### **Required profile** (key descriptors)

- Higher Degree in Economics and/or Law, with the relevant post-graduate studies (desirable)
- Strong understanding of the fiscal regulatory framework in Yemen
  - At least 5 years of experience drafting legal and/or regulatory instruments
  - Sound communication skills; first-class writing skills (Arabic required, English desirable).
  - Affinity with environmental management
  - Ability/disposition to work as part of a team.

### 4.5 Environmental Law Advisor (international)

### General purpose of the post

Preparation of regulations – by-laws on export of biological materials off Socotra – and Yemen (upon certification), consistent with international conventions

### Main deliverables

- Regulatory framework , consistent with international conventions
- Certification framework

### Required profile (key descriptors)

- Higher degree in Environmental Law
- Excellent knowledge on international conventions related with export of threatened species (a.o. CITES)
- Excellent oral and written communication skills in English.
- Preferably working knowledge of Arabic.

#### 4.6 Environmental Advisor (Natural Resource Management) (international)

#### General purpose of the post

Backstopping EPA team in impact monitoring of exploitation of endemic plants and other biological products from Socotra

### Main deliverables

- Monitoring plan
- Impact assessment of increased exploitation of endemic plants and other biological products

#### <u>Required profile</u> (key descriptors)

- Higher degree in Botany, Natural Resource Management of related field
- Experience with impact assessment of exploitation of endemic taxa with a limited distribution area only.
- Good knowledge of the Flora and Vegetation of Socotra
- Knowledge of other taxa on Socotra.

ANNEX 1: OFFLINE RISK LOG   Project Title: Award ID   Date									
ŧ	Description	Date Identif ied	Туре	Impact & Probabili ty	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	Present strong and high-level government commitment to decentralisati on is not sustained	Feb 08	Political	P=1 I=5	Decentralisation is a major component of UNDAF and programmes of other partners and will receive strong influence on the GOY to keep this high on the agenda	Govt	GEF/UNDP	Feb 08	Project not started
	Non- commitment on the part of Governments and donors to financially back the decentralizati on process	Feb 08	Political	P=1 I=5	UNDP committed considerable resources in its 2007 – 2011 UNDAF into the decentralization process. Other donors are following this example.	Govt	GEF/UNDP	Feb 08	Project not started
	Non- acceptance of the creation of a single island-wide administratio n	Feb 08	Political	P= 2 I=5	Ongoing efforts to increase the international profile of Socotra (e.g. World Heritage Site nomination). Continued lobbying of SCDP and its partners (including high ranking governmental officials, embassies, etc).	Govt	GEF/UNDP	Feb 08	Project not started
	Slow and limited staffing and budgeting of the new island-wide administratio n	Feb 08	Operation al Organizati onal Financial	P=3 I=5	The formulation of a parallel project (DLDSP – SCDP) with a foreseen budget of 1 million \$US, will provide specific incentives and assistance for the creation and functioning of this island-wide administration	Govt	GEF/UNDP	Feb 08	Project not started
	Acceptance of the importance of biodiversity and the Conservation Zoning Plan as basis for spatial planning on Socotra	Feb 08	Political	P=3 I=5	Ongoing efforts of SCDP-EPA, in the field of Conservation – Development. Efforts to increase the international profile of Socotra (see above)	Govt	GEF/UNDP	Feb 08	Project not started

Local communities are aware of the importance of biodiversity on Socotra and mobilized to influence	Feb 08	Environm ental	P=3 I=5	The project puts considerable resources into the strengthening of the capacity of SCF to catalyse integrated Conservation and Development on Socotra.	Govt	GEF/UNDP	Feb 08	Project not started
local administratio n's decision in this regard								
Non- acceptance on the part of the Government to endorse proposed regulations and bylaws (on ABS, taxing, etc)	Feb 08	Political	P=1 I=3	There is a strong commitment of the GoY (also expressed by the Feb. 2008 Cabinet Decrees, see annex) to accommodate such regulations. The proposed project builds on this commitment	Govt	GEF/UNDP	Feb 08	Project Not started
Acceptance of the importance of biodiversity and the Conservation Zoning Plan as basis for spatial planning on Socotra	Feb 08	Political	P=3 I=4	Ongoing efforts of SCDP-EPA, in the field of Conservation – Development. Efforts to increase the international profile of Socotra (see above)	Govt	GEF?UNDP	Feb 08	Project Not started
Local communities are aware of the importance of biodiversity on Socotra and mobilized to influence local administratio n's decision in this regard	Feb 08	Operation al Organizati onal Financial	P=3 I=4	The project puts considerable resources into the strengthening of the capacity of SCF to catalyse integrated Conservation and Development on Socotra.	Govt	GEF?UNDP	Feb 08	Project Not started
Climate change is projected to reduce considerably the extend of sub-humid habitat of Socotra	Feb 08	ENVIRON MENTAL	P=2 I=3	The reinforced implementation of the CZP will be important in mitigating at least some of the impacts of climate change. A research programme is under formulation	Govt	GEF?UNDP	Feb 08	Project Not started

where a large	by Edinburgh		
number of	Botanic Garden to		
endemic	assist EPA in		
species can	formulating		
be found,	mitigation measures,		
including the	including the		
dragon blood	extension of		
tree <sup>22</sup>	protected areas over		
	several altitude –		
	climate classes,		
	allowing migration of		
	species in times of		
	aridification.		

<sup>&</sup>lt;sup>22</sup> Attorre F., F. Francesconi, N. Taleb, P. Scholte, A. Saed, M.Alfo and F.Bruno. 2007. Will dragonblood survive the next period of climate change? Current and future potential distribution of *Dracaena cinnabari* (Socotra, Yemen). *Biol.Cons.* 138: 430-439.