

# Western Africa Region

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# 1 About

## 1.1 Overview

The coastal countries from Mauritania to Namibia contain highly productive and diverse ecosystems supporting rich fisheries, coastal tourism, industries and busy ports. The region, however, has seen terrible conflicts resulting in immense poverty. In recent decades coastal ecosystems have suffered greatly from rapid development, improper use of resources and extensive pollution. Coastal erosion and floods are already particular problems, likely to be exacerbated by climate change. Crucial habitats are disappearing virtually everywhere, and human societies are both the perpetrators and victims of this destruction.

The Regional Seas Programme for West and Central Africa Region (WACAF) was forged in the early 1980s. The West and Central African Action Plan and the Abidjan Convention and associated protocol were adopted by the Governments of the region in 1981. Projects on contingency planning, pollution, coastal erosion, environmental impact assessment, environmental legislation and marine mammals soon followed.

To begin with progress was slow, however, today, WACAF is back on track, holding regular meetings and implementing its planned activities. At the last meeting of Conference of Parties the aims were to establish a Regional Coordinating Unit in Abidjan and the election of a new Bureau. WACAF also hopes to learn and benefit from the family of Regional Seas Programmes with the recent twinning with the partner programme OSPAR (North East Atlantic region).

## 1.2 Key Dates

1977	The fifth Session of the Governing Council called upon UNEP to develop a regional action plan and agreement in the West African Region.
1979	5-9 November. Meeting of Experts to review the draft Action Plan, in Libreville.
1980	24-27 November. Meeting of Experts to review the draft Action Plan, in Lomé.
1981	16-23 March. The Conference of Plenipotentiaries on cooperation in the protection and development of the marine and coastal environment of the West and Central African region, in Abidjan, Côte d'Ivoire. This led to the adoption of the Action Plan. 20-23 July. First Meeting of the Steering Committee, in Abidjan, Côte d'Ivoire.
1982	19-21 April. First Meeting of the National Authorities for the Action Plan. 22-23 April. Second Meeting of the Steering Committee.
1984	30 April - 2 May. Third Meeting of the Steering Committee. 2-4 May. Extraordinary Intergovernmental Review Meeting
1985	15-17 April. Fourth Meeting of the Steering Committee. 18-20. First meeting of Contracting Parties, in Abidjan, Côte d'Ivoire.
1988	16-18 May. Fifth Meeting of the Steering Committee.
2002	6 <sup>th</sup> Meeting of the Conference of the Parties

### **1.3 Geographic and General Information**

**Region:** West and Central Africa

**Participating States:** Angola, Benin, Cameroon, Cape Verde, Democratic Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo, Congo and South Africa.

**Total Population:** Approximately 326.2 million (2002)

**Length of coastline:** Approximately 13, 553 km

**GIWA Regions:** 41. Canary Current, 42 Gulf of Guinea, 44 Benguela Current, 45 Agulhas Current

**Large Marine Ecosystems:** Canary current, Guinea current, Benguela current

#### **1.3.1 Oceanographic Information**

One of the main characteristics of this marine region is the presence of seasonal upwelling. Off the West and Central African coast, five distinct and relatively persistent oceanic currents are of importance in respect of transport of substances, water temperature, meteorology and biological conditions. They are:

- Benguela current, flowing along the South West African coastal zone;
- Guinea current, flowing eastward and south eastward, which carries warm waters along the coast of Gulf of Guinea, near the Equator;
- Guinea current constitutes the continuation of the Equatorial counter current; and
- Canary current, which flows south-westward along the coast in the northern part of the WACAF region. It feeds both the Guinea current and the North Equatorial current (UNEP 1999).

Both the Canary current and the Benguela current transport cool water toward the Equator and have current speeds of about 20 centimetres per second. The Guinea Current carries warm water toward the coast and has speeds of 1-3 knots with the highest currents in the summer months. All the currents are essentially wind-driven (UNEP 1999). As a consequence, the upwelling phenomena, generated by the regional wind systems, dominate in bands at some tens of kilometres widths adjacent to the coast. The cooler and richer upwelling waters prevail along the north-western part from November to April/May; along limited parts of the northern parts of the Gulf of Guinea and strongly in winter along the southern coastline (August), weaker in summer (November – February) (UNEP 1999). High precipitation and numerous rivers on the central West African coast generate large masses of warm (above 24°C) and low salinity (less than 35‰) waters called the Guinean waters (UNEP 1999).

### **1.3.2 Coastal Geography and Geology**

The continental shelf along the west coast is narrow in general with an average width of 20-25 km (UNEP 1999). The coastal morphology of the region consists of successions of:

- Sandy arid coastal plains bordered by eolian dunes (Mauritania, North Coast of Senegal, Angola);
- More or less sandy, marshy alluvial with estuaries and deltas, colonised by mangrove vegetation (south of Senegal, Guinea-Bissau and Guinea, Sierra Leone);
- Rocky scarps and sandy beaches, alternating with mangrove vegetation (Sierra Leone, Liberia, eastern Nigeria to Gabon);
- Low sandy coastal plains which alternate with lagoons along the Gulf of Guinea (Cote d'Ivoire, Ghana, Togo, Benin, Congo estuary up to the Angolan border); and
- Huge marshy areas formed by the Niger delta, with mangroves indented by fluvial channels which are subject to tidal influence (UNEP 1999).

A number of islands and archipelagos can be found in the Atlantic Ocean off the coast of West Africa (Canary and the Cape Verde Islands; Bissagos archipelago) and in the eastern part of the Gulf of Guinea (Sao Tome and Principe and Annabon in Equatorial Guinea) (UNEP 1999)

The 3,000-kilometre coastline of South Africa shows a wide variety of habitats, affected by the different ocean currents running parallel to the coast in the east (warm water) and west (cold water). The southern region is a transition zone between these water masses, having fauna and flora representative of both systems as well as its own endemic species (Wells and Bleakley 2003).

### **1.3.3 Ecosystem Diversity**

The coastal region and the adjacent uplands areas offer a varied and wide range of habitats and biota with a high biological diversity (UNEP 1999).

#### **1.3.3.1 Coral Reefs**

There are no true reefs along the West African coast or in the archipelagos of the Gulf of Guinea and Cape Verde, due to the cool waters of the Benguela Current and the Canary Current (UNEP 1999). However, there are a number of isolated sites with rich coral communities where hard substrate and suitable clear water is available, for example, around the oceanic islands and along some of the rocky mainland coasts (e.g. the Cape Verde Islands and the Islands and in the Gulf of Guinea, Ghana, Gabon and Cameroon (Wells and Bleakley 2003). Although diversity is low, there are a number of rare and endemic species, some of which are most closely related to Brazilian species (Wells and

Bleakley 2003). Coral communities are present off the Maputoland coast on the northeast coast of South Africa (Wells and Bleakley 2003).

### **1.3.3.2 Mangroves and Seagrasses**

Over 25,000 square kilometres of mangroves extend along the West African coast from Senegal to Angola (UNEP 1999). The areas of highest mangrove concentration are located along the coasts South of Senegal, Guinea and Guinea Bissau, Sierra Leone and mainly in the Niger Delta. Although these mangrove forests are less diverse in terms of species than those of East Africa, they are the best-developed and most extensive in Africa (UNEP 1999). The most extensive areas are in Guinea and Guinea-Bissau, both of which were formerly almost entirely fringed with mangroves; although much has been cleared they still have some 285,000 hectares and 100,000 hectares respectively. Nigeria has more than 35 percent of all West African mangroves (about 9.7 million hectares) and still has large stands, particularly in the Niger Delta (500,000 hectares) (Wells and Bleakley 2003). There are some 300,000 hectares in Cameroon, mainly in the north and a similar area in Gabon. Large areas are also found in the Gambia and Sierra Leone (Wells and Bleakley 2003). Seagrass beds exist in some estuaries and deltas mouths (Cacheu, Casamance, Gebe and Saloum), although these are not well developed (UNEP 1999).

### **1.3.3.3 Other Wetlands**

There are numerous deltas, including several major ones. These deltas may have extensive associated wetlands, such as those of the River Gambia where permanent tidal swamps extend in a semi-continuous belt that reaches nearly 200 kilometres upstream, and extensive mangroves in the lower reaches. Examples of these deltas are: the Volta River in Ghana that has a complex lagoon system including Keta and Songaw (Songor) lagoons, surrounded by mangroves and important to migrants; Niger delta in Nigeria with an area of over 36,000 square kilometres, the largest delta in the world and Congo River in Zaire (Wells and Bleakley 2003). Most of the coastal wetlands provide unique ecological conditions and habitats for migratory birds. They function also as a nursery for valuable fish and shellfish, but remain unprotected with regards to natural and human influences and exploitation (UNEP 1999).

## **1.3.4 Species Diversity**

### **1.3.4.1 Seaweeds**

The tropical west coast of Africa is one of the least diverse regions for seaweeds. There is also low diversity around isolated oceanic islands such as St. Helena. However, relatively high levels of endemism are found in algae around the oceanic islands (St. Helena and Ascension), at the northern (Senegal) and southern (Angola) limits of tropical West Africa, and around the southwest Cape of South Africa (Wells and Bleakley 2003).

#### **1.3.4.2 Invertebrates**

Various species of crustacea are found in the area and there are important fisheries for lobsters in the northern and southern zones, deepwater shrimp off the coast of Senegal and Angola, and prawns in the Gulf of Guinea. In the coastal regions and in the lagoons unaffected by human activities, exploitable marine resources are abundant with fish species and prawns and molluscs (*Andara sp.*, *Crassostrea g.*, etc) being found (UNEP 1999; Wells and Bleakley 2003).

#### **1.3.4.3 Fish**

The botanical wealth of estuaries and lagoons makes a major contribution to the diversity of fish life, as does the high primary productivity based on upwellings of cold, nutrient-rich waters, off Senegal, Zaire, and Namibia, and in the outflow of the Congo/Zaire River drainage system (UNEP 1999). The tropical West African coasts have an estimated 239 fish species of which some are well known (e.g. *Sardinella aurita*, *S. maderensi*, *Thunnus albacares* etc) as pelagic species and others (e.g. *Arius sp.*, *Pseudotolithus typus and senegalensis*, *Dentex sp.*, *Octopus vulgaris*, *Cynoglossus sp.*) and others as demersal species (UNEP 1999). 70 percent of the fish species in the region are endemic (Wells and Bleakley 2003). The Gulf of Guinea islands probably have a particularly high level of endemism within the shore fish (Wells and Bleakley 2003). Several of the oceanic islands have high levels of endemism in their fish faunas. Of the 80 shore fish found around St. Helena, 10 are endemic to these waters alone, and 16 are found only in the waters of St. Helena and Ascension (Wells and Bleakley 2003).

#### **1.3.4.4 Reptiles**

Several beaches provide important nesting sites for the green and Olive Ridley turtles (*Chelonia midas* and *Lepidochelys divacea*) as well as for three other turtle species. Ascension Island is a globally important nesting beach for green turtles, with 1,800-2,000 females nesting each year; hawksbills also nest there (Wells and Bleakley 2003).

#### **1.3.4.5 Birds**

Large concentrations of seabirds are found seasonally in Mauritania, Gambia, Guinea Bissau and Senegal; these include *Larus genei*, *Geochelidon nilotica*, *Sterna maxima albididorsalis*, etc. as well as the regionally large populations of the great white pelican, white breasted cormorant and the Caspian tern (UNEP 1999). The Gulf of Guinea has sizeable sites with colonies of terns, noddies and boobies (UNEP 1999).

There are important seabird colonies off the coast of South Africa, the most important areas being Shark Island, Namibia and Bird Island, Lambert's Bay and Marcus Island. Many of the oceanic islands have important seabird nesting sites, although in many places populations are declining, for example, on the Cape Verdes and in several other Micronesian islands (Wells and Bleakley 2003). The Canary Islands have six breeding seabird species, including frigate birds and shearwaters (Wells and Bleakley 2003).

Ascension is the single most important seabird nesting site in the South Atlantic in terms of both diversity and abundance, with Boatswain Bird Island being particularly notable. St. Helena used to support 15 breeding seabirds, but nine of these no longer breed and two species (*Pterodroma rupinarum* and *Bulweria bifax*) are extinct (Wells and Bleakley 2003). Tristan da Cunha, especially on Nightingale and Gough, and Bouvet also have important seabird colonies (Wells and Bleakley 2003).

#### **1.3.4.6 Marine mammals**

Cetaceans are fairly abundant, while the West African manatee (*Trichechus senegalensis*) (UNEP 1999) occurs in suitable habitat from Senegal to Angola. Fur seals and elephant seals occur around the southern oceanic islands, such as Gough and Bouvet. The endangered Mediterranean Monk Seal occurs in the Madeiran archipelago and as far south as northern Mauritania (Wells and Bleakley 2003).

### **1.3.5 Information on Participating States**

#### **1.3.5.1 Angola**

**Total Population:** 13,895,700 (World Bank 2002)

**GDP (current US\$):** 11,380,100,000 (World Bank 2002)

**Total sea area:**

*contiguous zone:* 24 NM

*exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 1,600 km (CIA 2003)

**Coastal and Marine Protected Areas:**

- Kisama National Park
- Ilha dos Passaros Integral Nature Reserve
- Iona National Park: high sand dunes
- Mocamedes Partial Reserve

(Wells and Bleakley 2003)

#### **1.3.5.2 Benin**

**Total Population:** 6,603,440 (World Bank 2002)

**GDP (current US\$):** 2,689,617,920 (World Bank 2002)

**Total sea area:** *territorial sea:* 200 NM

**Length of coastline:** 121 km (CIA 2003)

**Coastal and Marine Protected Areas:**

There are no existing marine or coastal protected areas recorded for this country.

**Proposed new MPAs:**

- Proposed Reserve de la Biosphere du Djessin
- Wetlands of the coastal plains

- Lake Nokoue and Porto Novo  
(Wells and Bleakley 2003)

### **1.3.5.3 Cameroon**

**Total Population:** 15,522,760 (World Bank 2002)  
**GDP (current US\$):** 9,059,785,728 (World Bank 2002)  
**Total sea area:** *territorial sea:* 50 NM  
**Length of coastline:** 402 km (CIA 2003)  
**Coastal and Marine Protected Areas:**

- Douala-Edea Faunal Reserve
- Campo Faunal Reserve

Proposed new MPAs:

- Bakossi Peninsula Mangroves

(Wells and Bleakley 2003)

### **1.3.5.4 Cape Verde**

**Total Population:** 458,030 (World Bank 2002)  
**GDP (current US\$):** 631,098,816 (World Bank 2002)  
**Total sea area:** measured from claimed archipelagic baselines  
*territorial sea:* 12 NM  
*exclusive economic zone:* 200 NM  
*contiguous zone:* 24 NM  
**Length of coastline:** 965 km (CIA 2003)  
**Coastal and Marine Protected Areas:**

- Conkouati Faunal Reserve

(Wells and Bleakley 2003)

### **1.3.5.5 Democratic Republic of Congo**

**Total Population:** 53,797,020 (World Bank 2002)  
**GDP (current US\$):** 5,703,538,688 (World Bank 2002)  
**Total sea area:** *exclusive economic zone:* boundaries with neighbors  
*territorial sea:* 12 NM  
**Length of coastline:** 37 km (CIA 2003)  
**Proposed new MPAs:**

- Kouilou Estuary Mangroves

(Wells and Bleakley 2003)

### **1.3.5.6 Republic of Congo**

**Total Population:** 3,189,770 (World Bank 2002)  
**GDP (current US\$):** 3,014,254,848 (World Bank 2002)  
**Total sea area:** *territorial sea:* 200 NM

**Length of coastline:** 169 km (CIA 2003)

**Proposed new MPAs:**

- Kouilou Estuary Mangroves

(Wells and Bleakley 2003)

### **1.3.5.7 Côte d'Ivoire**

**Total Population:** 16,774,870 (World Bank 2002)

**GDP (current US\$):** 11,717,403,648 (World Bank 2002)

**Total sea area:** *continental shelf:* 200 NM

*exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 515 km (CIA 2003)

**Coastal and Marine Protected Areas:**

- Parc National d'Azagny
- Parc National du Banco
- Iles Ehotile National Park

Proposed new MPAs:

- Fresco, Tadio, Ebrie and Aby Lagoons.
- Azagny National Park
- Aby Lagoon
- Azuretti Mangroves
- Cape Palmas
- Bandama River lagoons
- Basse Dodo
- Canal d'Asagni w etlands
- Dagbego Lagoon
- Fresco Lagoons
- Niega de la Embouchure

(Wells and Bleakley 2003)

### **1.3.5.8 Equatorial Guinea**

**Total Population:** 481,420 (World Bank 2002)

**GDP (current US\$):** 2,173,494,528 (World Bank 2002)

**Total sea area:** *exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 296 km (CIA 2003)

**Coastal and Marine Protected Areas:**

- Estuario de Rio Muni Protected Area
- Estuario de Rio Ntem (Campo) Protected Area.
- Isla de Annobon Protected Area

Proposed new MPAs:

- South coast of Isla de Bioko

(Wells and Bleakley 2003)

### 1.3.5.9 Gabon

**Total Population:** 1,290,600 (World Bank 2002)

**GDP (current US\$):** 4,970,816,000 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 885 km (CIA 2003)

**Ramsar Sites:** Wongha-Wonghe (Petit Loango and Sette Cama).

**Coastal and Marine Protected Areas:**

- Sette-Cama
- Wonga-Wongue Presidential Reserve

Proposed new MPAs:

- Akanda Mangroves
- Elobey Islands
- Mondah Reserve
- Ozouri

(Wells and Bleakley 2003)

### 1.3.5.10 The Gambia

**Total Population (2001):** 1,375,710 (World Bank 2002)

**GDP (current US\$):** 388,270,592 (World Bank 2002)

**Total sea area:** *contiguous zone:* 18 NM

*territorial sea:* 12 NM

*continental shelf:* not specified

*exclusive fishing zone:* 200 NM

**Length of coastline:** 80 km (CIA 2003)

**Coastal and Marine Protected Areas:**

- Niuni/Sine Saloum National Park
- Gambia River National Park
- Kiang West National Park

(Wells and Bleakley 2003)

### 1.3.5.11 Ghana

**Total Population:** 20,070,910 (World Bank 2002)

**GDP (current US\$):** 6,021,152,768 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*territorial sea:* 12 NM

*continental shelf:* 200 NM

*exclusive economic zone:* 200 NM

**Length of coastline:** 539 km (CIA 2003)

**Ramsar Sites:**

- Ow abi (Muni Lagoon),
- Densu Delta,
- Sakumo Lagoon,

- Songor Lagoon, and
- Anlo-Keta Lagoon Complex.

Coastal and Marine Protected Areas:

There are no marine or coastal protected areas recorded for this country.

Proposed new MPAs:

- Anlo-Keta Lagoon Complex
- Densu Delta
- Muni Lagoon
- Sakumo Lagoon
- Songor Lagoon

(Wells and Bleakley 2003)

### 1.3.5.12 **Guinea**

**Total Population:** 7,744,350 (World Bank 2002)

**GDP (current US\$):** 3,174,042,880 (World Bank 2002)

**Total sea area:** *exclusive economic zone:* 200 NM  
*territorial sea:* 12 NM

**Length of coastline:** 320 km (CIA 2003)

**Ramsar Sites:** Owabi (Guinea Ile Alcatras, Iles Tristao, Rio Kapatchez, Rio Pongo, Konkoure and le Blanche).

**Coastal and Marine Protected Areas:**

There are no marine or coastal protected areas recorded for this country.

**Proposed new MPAs:**

Several sites have been designated as Ramsar sites although there is no formal protection yet:

- Ile Alcatraz
- Blanche Island
- Iles Tristao
- Konkoure Estuary
- Rio Kapatchez
- Rio Pongo (Boffa Mangroves)
- Rio Komponi (Kogon) and Rio Nunez Mangroves
- Forecariah Mangroves

### 1.3.5.13 **Guinea-Bissau**

**Total Population:** 1,252,670 (World Bank 2002)

**GDP (current US\$):** 215,783,296 (World Bank 2002)

**Total sea area:** *exclusive economic zone:* 200 NM  
*territorial sea:* 12 NM

**Length of coastline:** 350 km (CIA 2003)

**Ramsar Sites:** Lagoa de Cufada.

**Coastal and Marine Protected Areas:**

- Arquipelago dos Bijagos Hunting Reserve
- Ilha de Cofra Hunting Reserve

- Rio Mansoa Hunting Reserve
- Sector Administrativa de Boe Hunting Reserve
- Lagoa de Cufada

Proposed new MPAs:

- Bijagos Archipelago Hunting Reserve and Proposed Biosphere Reserve
- Rio Cacheu
- Rio Geba Estuary
- Rio Grande de Buba Basin
- Rio Mansoa Basin
- Rio Tombali

(Wells and Bleakley 2003)

#### **1.3.5.14 Liberia**

**Total Population:** 3,295,050 (World Bank 2002)

**GDP (current US\$):** 563,800,000 (World Bank 2002)

**Total sea area:** *territorial sea:* 200 NM

**Length of coastline:** 579 km (CIA 2003)

**Coastal and Marine Protected Areas:**

- Banc d'Arguin National Park
- Diawling National Park
- Las Cuevecillas Integral Reserve

Proposed new MPAs:

- Cape Mount proposed National Park

#### **1.3.5.15 Mauritania**

**Total Population:** 2,828,010 (World Bank 2002)

**GDP (current US\$):** 982,845,568 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*territorial sea:* 12 NM

*continental shelf:* 200 NM or to the edge of the continental margin

*exclusive economic zone:* 200 NM

**Length of coastline:** 754 km (CIA 2003)

**Ramsar Sites:** Banc d'Arguin

**Proposed new MPAs:**

- Aftout es Saheli

(Wells and Bleakley 2003)

#### **1.3.5.16 Namibia**

**Total Population:** 1,823,200 (World Bank 2002)

**GDP (current US\$):** 2,793,242,880 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 1,572 km(CIA 2003)

**Coastal and Marine Protected Areas:**

- Namib Naukluft Game Park
- Skeleton Coast Game Park
- Cape Cross Seal Nature Reserve

Proposed new MPAs:

- Wetlands along the Namibian coast
- Sandwich Harbor
- Swakopmund Saltworks
- Orange River Mouth
- Cape Cross lagoons

(Wells and Bleakley 2003)

### **1.3.5.17 Nigeria**

**Total Population:** 132,784,704 (World Bank 2002)

**GDP (current US\$):** 43,540,209,664 (World Bank 2002)

**Total sea area:** *continental shelf:* 200-m depth or to the depth of exploitation

*exclusive economic zone:* 200 NM

*territorial sea:* 12 NM

**Length of coastline:** 853 km(CIA 2003)

**Coastal and Marine Protected Areas:**

There are no marine or coastal protected areas recorded for this country.

Proposed new MPAs:

- Lagos and Lekki lagoons and system
- Niger Delta
- Cross River wetlands and delta

(Wells and Bleakley 2003)

### **1.3.5.18 Sao Tome and Principe**

**Total Population:** 154,210 (World Bank 2002)

**GDP (current US\$):** 50,229,276 (World Bank 2002)

**Total sea area:** measured from claimed archipelagic baselines

*territorial sea:* 12 NM

*exclusive economic zone:* 200 NM

**Length of coastline:** 209 km(CIA 2003)

### **1.3.5.19 Senegal**

**Total Population:** 10,006,790 (World Bank 2002)

**GDP (current US\$):** 4,939,546,112 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*territorial sea:* 12 NM

*continental shelf:* 200 NM or to the edge of the continental margin

*exclusive economic zone:* 200 NM

**Length of coastline:** 531 km (CIA 2003)

**Ramsar Sites:** Delta du Saloum and Gueumbeul.

**Coastal and Marine Protected Areas:**

- Delta du Saloum National Park and Biosphere Reserve
- Langue de Barbarie National Park
- Iles de la Madeleine National Park
- Gueumbeul Special Faunal Reserve
- Basse-Casamance National Park
- Kalissaye Special Reserve
- Popenguine Special Faunal Reserve
- Island of Goree

(Wells and Bleakley 2003)

### **1.3.5.20 Sierra Leone**

**Total Population:** 5,235,470 (World Bank 2002)

**GDP (current US\$):** 789,351,360 (World Bank 2002)

**Total sea area:** *contiguous zone:* 24 NM

*territorial sea:* 12 NM

*continental shelf:* 200 NM

*exclusive economic zone:* 200 NM

**Length of coastline:** 402 km (CIA 2003)

**Coastal and marine Protected Areas:**

- Western Forest Reserve (described in Schwartz 1992).

Proposed new MPAs:

- Bunce River (Sierra Leone River System)
- Yawri Bay-Shenge/Kagboro Creek Area
- Turtle Islands
- Bonthe Mangrove Swamp
- Bumpe Mangrove Swamp
- Lake Mape and Lake Mabesi
- Scarcies River Estuary
- Sewa-Waanje Game Reserve
- Sierra Leone River and Freetown Peninsula
- Sulima Mangrove Swamp proposed Strict Nature Reserve
- Yelibuya Island proposed Strict Nature Reserve

(Wells and Bleakley 2003)

### **1.3.5.21 Togo**

**Total Population:** 4,766,550 (World Bank 2002)

**GDP (current US\$):** 1,383,524,096 (World Bank 2002)

**Total sea area:** *exclusive economic zone:* 200 NM

*territorial sea:* 30 NM

**Length of coastline:** 56 km (CIA 2003)

**Coastal and Marine Protected Areas:**

There are no marine or coastal protected areas recorded for this country.

Proposed new MPAs:

- Lakes Togo and Vogan and coastal lagoons (Wells and Bleakley 2003)

### **1.3.5.22 South Africa**

**Total Population:** 43,580,000 (World Bank 2002)

**GDP (current US\$):** 104,234,901,504 (World Bank 2002)

**Total sea area:** contiguous zone: 24 NM

territorial sea: 12 NM

continental shelf: 200 NM or to edge of the continental margin

exclusive economic zone: 200 NM

**Length of coastline:** 2,798 km (CIA 2003)

**Ramsar Sites:** De Hoop Vlei (De Mond (Heuningnes Estuary), Turtle Beaches/Coral Reefs of Tongaland, St. Lucia System, Langebaan, Wilderness Lakes, Verlorenvlei, Orange River Mouth, Kosi Bay, and Lake Sibaya).

#### **Marine Protected Areas**

West Coast Province:

- Cape of Good Hope Marine Reserve
- Elephant Rock Marine Reserve
- Glencairn Marine Reserve
- Gxulu Marine Reserve
- Kalk Bay Marine Reserve
- Miller's Point Marine Reserve
- Kommetjie Rock Lobster Reserve
- Mc Dougall's Bay Rock Lobster Reserve
- Saldanha Bay Rock Lobster Sanctuary
- St. Helena Bay Rock Lobster Sanctuary
- Table Bay Rock Lobster Sanctuary
- Orange River Mouth Wetland RAMSAR
- Verlorenvlei Wetland (Elands Bay) RAMSAR
- West Coast National Park

South Coast Province:

- De Hoop Marine Reserve
- Gonubie Nature (Marine) Reserve
- Robberg Marine Reserve
- Tsitsikamma National Park
- East Coast Province:
- Sodwana Bay National Park
- St. Lucia Marine Reserve
- Trafalgar Marine Reserve
- Umdoni Park Marine Reserve

Proposed new MPAs:

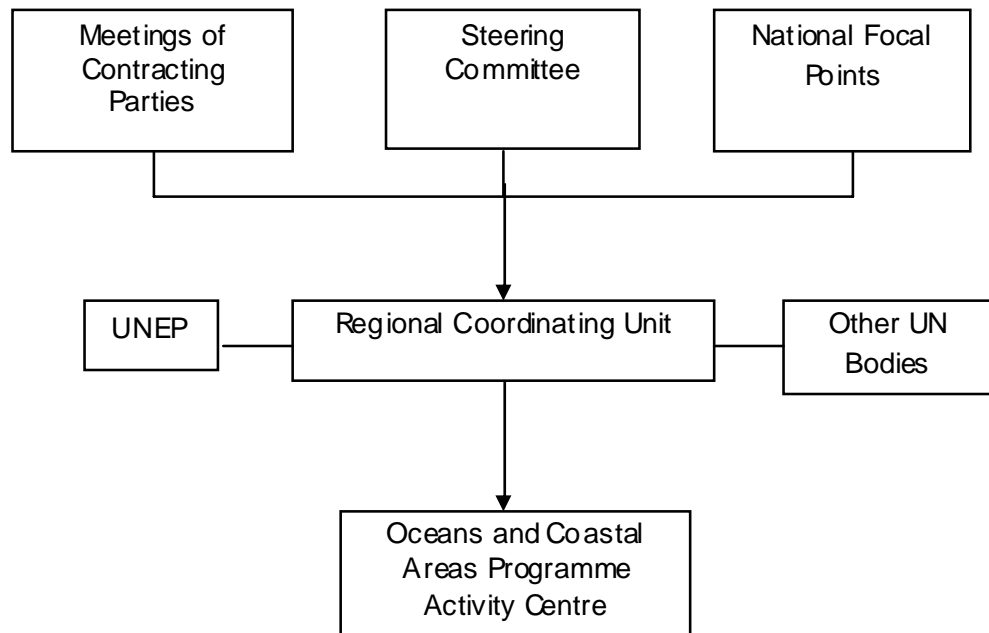
- The Richtersveld
- The Namaqualand Coast
- The Elands Bay coast
- The Langebaan Coast
- The Cape Peninsula Coast
- The De Hoop Coast

- The Garden Route Coast
- The Woody Cape Coast.
- The Southeast Coast
- The Mtamvuna Coast
- The Maputland Coast

(Wells and Bleakley 2003)

## 1.4 Organization

### 1.4.1 Institutional Structure



### 1.4.2 Conference of Parties

#### Conference of Parties to the Abidjan Convention

##### Contact

Ministre de l'Environnement et du Cadre de Vie  
 Tour D - 10ème étage, Cité Administrative  
 20 BP 650 Abidjan 20  
 Côte d'Ivoire  
 Tel. (225)20 22 61 35/20 22 20 50/20 21 04 95  
 Fax (225)20 22 20 50/20 21 04 95

Conference of Parties to the Abidjan Convention meet every two years.

**Date and place of last meeting: to come**  
**Date and place of next meeting: to come**

### 1.4.3 Bureau of Contracting Parties

<b>Composition</b>	<b>Countries</b>	<b>Names</b>	<b>Term Expiring</b>
Chair	Cote d'Ivoire	To come	To come
Co-ordination with the NC	Senegal	To come	To come
Co-ordination with GEF	The Gambia	To come	To come
Resources mobilization & Sustainable financing	Nigeria	To come	To come
Partnership Conference	South Africa	To come	To come
Joint Reporteurs	Togo, Cameroon, and Congo	To come	To come

### 1.4.4 Steering Committee

A Steering Committee initially composed of 7 States and later expanded to 10 was set up by the Governments when adopting the Action Plan to provide the Coordinating Unit with policy guidance on substantive and financial matters related to the implementation of the Convention, the Protocol, and Action Plan in between meetings of the Contracting Parties (UNEP 1989).

### 1.4.5 The Coordinating Unit

The Regional Coordinating Unit was initially placed under the authority of to technically coordinate the activities under the Action Plan now the coordinating Unit is hosted by Côte d'Ivoire. UNEP acts as Secretariat to the Action Plan.

#### **Secretariat**

**Year established: to come**

**Coordinator:** Mr. Dixon Waruinge, Programme Officer, Kenyan

#### **Contacts:**

Programme Officer,  
United Nations Environment Programme (UNEP),  
Division of Environmental Conventions,  
P. O. Box 30552,  
Nairobi, Kenya,  
Tel: 254 2 622025  
Fax: 254 2 624300

Email: [dixon.w.aruinge@unep.org](mailto:dixon.w.aruinge@unep.org)

**Staff:**

Mrs. Patronila Njuki, Project Assistant

Mrs. Annabelle Olum, Secretary

**Regional Coordinating Unit for the Abidjan Convention**

Year established: 1996

**Coordinator:** Mrs. Nasséré Kaba

**Contacts**

Interim Coordinator, Abidjan Convention

Ministere de l'Environnement et de la Foret

Direction de l'Environnement

Citad, Tour D 11e etage

20 B.P. 650 Abidjan 20

Cote d'Ivoire

Tel: 225 20 211183/202 10623/202 26635

Fax: 225 202 10495

Email: [wacaf@aviso.ci](mailto:wacaf@aviso.ci) or [kabanassere@hotmail.com](mailto:kabanassere@hotmail.com)

**1.4.6 National Focal Points**

[to come]

**1.5 Financial Arrangements**

PROVISIONAL FIGURES FOR RESOURCES FOR REGIONAL SEAS ACTIVITIES

Projects	The Nairobi and Abjidan Conventions										
	Trust Fund-Nairobi Convention				Special contributions by:			UNFIP		Trust Fund - Abjidan	
	2002	2003	Total	Belgium	SIDA	2002-2003	2002	2003	Total		
<b>RESOURCES</b>											
Balance of resources brought forward	685,292	665,148	685,292	1,692,679	1,138,751		97,580	70,093	97,580		
EAWATrust funds (Contributions received)	152,980	148,791	301,771					15,000	15,000		
UNFIP						169,966					
Total Resources available	838,272	813,939	987,063	1,692,679	1,138,751	169,966	97,580	85,093	112,580		
<b>COMMITMENTS</b>											
The Coordinating Unit for the Eastern African Action Plan of the Nairobi Convention	153,207	175,793	329,000								
Eastern Africa Coastal and Marine Environment Resource Database and Atlas - EA/5101-93-01, EA/0401-95-03 and EA/1100-96-20				1,358,551			24,325	39,364	63,689		
Sub-regional Ministerial Consultations on the Environment - EA/0401-94-13, EA/1100-96-70											
ICRAN					956,035						
Sub total	153,207	175,793	329,000	1,358,551	956,035	161,872	24,325	39,364	63,689		
13%	19,917	22,853	42,770	176,612	124,284		3,152	5,117	8,280		
5% (UNFIP)						8,094					
Total	173,124	198,646	371,770	1,535,163	1,080,319	169,966	27,487	44,481	71,969		
Balance of Resources	665,148	615,293	615,293	157,516	58,432		70,093	40,611	40,611		
Earmarked Contributions by the USA		2001	2002	2003	Total						
Coral Reef Activities	50,000	50,000	50,000	50,000	200,000						
GPA activities	56,667	58,333	83,333	-	198,333						
Total	106,667	108,333	133,333	50,000	398,333						
<b>RESOURCES</b>											
Swedish Government	188,802	299,479	429,688	332,031	1,250,000						

## 1.6 Partners

### **Ministry of Environment and Quality of Life, Côte d'Ivoire**

Contact: Ms. Nasséré Kaba

Interim Coordinator, Regional Coordinating Unit of the Abidjan Convention

Government Ministry

The Ministry of Environment and Quality of Life is in charge of environment in Côte d'Ivoire.

**Fields of Cooperation:** The Ministry hosts the Regional Co-ordinating Unit for the Abidjan Convention and facilitates the coordination of activities and projects to ensure the successful implementation of the Action Plan for the protection and development of marine and coastal environment of the West and Central African Region.

### **Ministry of Environment, Science and Technology (MEST), Ghana**

Government Ministry

The Ministry of Environment, Science and Technology is in-charge of environment in Ghana

**Fields of Cooperation:** Liaises with the Regional Coordinating Unit in Abidjan in the implementation of the GEF Project for Guinea Current Large Marine Ecosystems (GCLME)

### **Environmental Protection Agency (EPA), Ghana**

Contact: Mr. D. Amlalo, Director/Operations, EPA

Government Department

EPA aims to co-manage, protect and enhance the country's environment, in particular, as well as seek common solutions to global environmental problems.

**Fields of Cooperation:** Support the Abidjan Convention in the implementation of its work plan.

### **Ministry of Environment and Nature Protection, Senegal**

Contact: Ms. Fatima Dia Toure, Directeur, Direction de l'Environnement et des Etablissements Classés

Government Ministry

Ministry of Environment and Nature Protection is in-charge of environment in Senegal and hosts the Interim Secretariat of the Environment Initiative of the New Partnership for Africa's Development (NEPAD)

**Fields of Cooperation:** Coordination in the implementation of the Marine and Coastal Environment Component of NEPAD.

### **OSPAR Commission**

Contact: Mr. Alan Simcock, Executive Secretary, OSPAR Commission

Regional Seas Convention

The OSPAR Commission administers the Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention") and develops policy and international agreements in this field.

**Fields of Cooperation:** OSPAR has agreed to support the Abidjan Convention especially in: setting up a network of focal points; providing the focal points with the tools to use in communication, i.e. computers and internet access; as well as supporting the Convention to hold a regional workshop. The workshop will target 3 main ecosystems: the Benguela, Guinea and Canary current ecosystems.

(Regional Seas 2003)

## **1.7 Horizontal Co-operation between Regional Seas**

**Twining between OSPAR and Abidjan Conventions**

**Nature of cooperation: to come**

**MoU: to come**

**Access to documents in downloadable format: to come**

## **2 Our Work**

### **2.1 Programme Strategy**

Link to Regional Seas Strategic Directions 2004-2007, downloadable document: to come

### **2.2 Action Plan**

**Action Plan for the protection and Development of the Marine Environment and Coastal Areas of the West and Central African Region**

**Year adopted:** 1981

**Year entered into force:** 5 August 1984

**Participating Countries:** (22) - Angola, Benin, Cameroon, Cape Verde, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo, Congo and South Africa

Link to full text of the Action Plan in downloadable format: to come

### **2.3 Convention**

**Abidjan Convention for Co-operation in the protection and Development of the Marine and Coastal Environment of the West and Central African Region**

**Short title:** Abidjan Convention

**Year adopted:** 1981

**Year entered into force:** 5 August 1984

**Contracting Parties (23):** Angola, Benin, Cameroon, Cape Verde, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo and Congo, South Africa.

**Ratified by:** Cameroon, Congo, Cote d'Ivoire, Gabon, Gambia, Ghana, Guinea, Nigeria, Senegal and Togo

## Status of Ratification

Parties	Date of signature	Date of instruments	deposit of	Date of entry into force
Angola	-	-	-	-
Benin	23 Mar. 1981	-	-	-
Cameroon	-	Accession	1 Mar. 1983	5 Aug. 1984
Cape Verde	-	-	-	-
Congo	23 Mar. 1981	Ratification	19 Dec. 1987	19 Feb. 1983
Côte d'Ivoire	23 Mar. 1981	Ratification	15 Jan. 1982	5 Aug. 1984
Democratic Republic of Congo	-	-	-	-
Equatorial Guinea	-	-	-	-
Gabon	-	Accession	13 Dec. 1988	11 Feb. 1989
Gambia	23 Mar. 1981	Ratification	6 Dec. 1984	5 Feb. 1985
Ghana	23 Mar. 1981	Ratification	20 July 1989	18 Sep. 1989
Guinea	23 Mar. 1981	Ratification	4 Mar. 1982	5 Aug. 1984
Guinea-Bissau	-	-	-	-
Liberia	23 Mar. 1981	-	-	-
Mauritania	22 June 1981	-	-	-
Namibia	-	-	-	-
Nigeria	23 Mar. 1981	Ratification	6 June 1984	5 Aug. 1984
Sao Tome & Principe	-	-	-	-
Senegal	23 Mar. 1981	Ratification	10 May 1983	5 Aug. 1984
Sierra Leone	-	-	-	-
Togo	23 Mar. 1981	Ratification	16 Nov. 1983	5 Aug. 1984
South Africa	To come			

**Depository state:** Cote d'Ivoire

Link to full text Abidjan Convention

<http://www.unep.org/easternafrika/AbidjanConvention.cfm>.

### 2.3.1 Protocol

#### **Protocol Concerning Co-operation in Combating Pollution in Cases of Emergency**

Year adopted: 1981

Year entered into force: 5 August 1984

Year revised: to come

Parties (number, list): to come

Link to full text Abidjan Protocol

<http://www.unep.org/easternafrika/AbidjanConvention.cfm#protocol>.

### 2.4 Issues and Threats

## **2.4.1 Land-based Sources of Pollution**

The region is struggling to cope with an ever increasing population and rapid industrialisation. An estimated 46 million inhabitants occupy a narrow coastal margin of 60km (UNEP1999) with the highest population densities focusing in coastal cities. This coupled with rapid urban expansion has led to negative human and environmental impacts along the coastal regions (UNEP 1999). A variety of pollutions from sewerage (often untreated), garbage, industrial and solid waste disposal, oil spills from shipping operation can be found in increasing amounts (UNEP 1999). The deterioration of water quality is one of the most important aspects of environmental degradation within this region (UNEP 1999). The total annual Biochemical Oxygen Demand (BOD) load for municipal sewerage was estimated in 1984 to be 62,535 tons in the northern zone, 205,612 tons in the middle zone and 20,314 tons in the southern zone (UNEP 1999). For industrial pollution, total annual BOD for the whole region was estimated for the same period to be 47,269 tons (UNEP 1999).

Agricultural run-off is also a major concern when considering the use of wide range of persistent organic pollutants (POPs), nutrients, pesticides and other herbicides (UNEP 1999). River inputs carry considerable amounts of sediment as a result of soil erosion and deforestation, which contributes to siltation of coastal habitats and further decline in the water quality (UNEP 1999).

For additional information refer to:

UNEP (1984) The marine and coastal environment of the West and Central African region and its state of pollution. UNEP Regional Seas Reports and Studies No. 46.  
UNEP (1999) Overview of Land-based Sources and Activities Affecting the Marine, Coastal and Associated Freshwater Environment in the West and Central African Region. UNEP Regional Seas Reports and Studies No. 171.

## **2.4.2 Coastal Erosion**

Coastal erosion constitutes a serious problem in many West African countries. The rate of the coastal retreat can average several meters per year (e.g. Fajara, Serekunda in the Gambia; Keta in Ghana; Saloum in Senegal). Although the coastline is highly subject to natural erosion and sedimentation processes due to high wave energy, strong littoral transport, etc., erosion has been intensified by human activities, notably through sand mining and exploitation, disturbance of the hydrological cycles, river damming, port construction, dredging, mangrove deforestation etc. These examples are particularly relevant for the Western part of Africa and mainly for the coastal countries in the Gulf of Guinea (Benin, Cote d'Ivoire, Ghana, Nigeria, Togo) (UNEP 1999). For example in Togo and Benin, due to the construction of large breakwaters for the Ports of Lome and Cotonou, coastal retreat has sometimes exceed 150m in 20 years east of Lome and 300-500m east of Port of Cotonou (Quelennec 1989).

For additional information refer to:

Quelennec R.E and Ibe, A.C. (1989) Methodology for the assessment of the impact and control of coastal erosion in West and Central Africa. UNEP Regional Seas Reports and Studies No. 107

### **2.4.3 Habitat Loss and Endangered Species**

Large areas of mangrove forests have been cleared, despite the importance of this region for mangroves, relatively few are protected, although the Parc National Delta du Saloum was created specifically to protect mangroves in Senegal, and Guinea now has a mangrove management program (Wells and Bleakley 2003). Mangroves are important as they function as nursery grounds for valuable fish and shellfish (UNEP 1999).

The number of seabird species in the region is declining, for example, on St. Helena used to support 15 breeding seabirds, but nine of these no longer breed and two species (*Pterodroma rupinarum* and *Bulweria bifax*) are extinct (Wells and Bleakley 2003). Both sirenians and cetaceans, despite local protection in places, are threatened by hunting and trapping in shark nets (Wells and Bleakley 2003). The Mediterranean Monk Seal is also an endangered species in this region (Wells and Bleakley 2003).

### **2.4.4 Exploitation of Fisheries**

The quasi-permanent areas of upwelling off Senegal, Gambia, Mauritania, Angola and Namibia, driven by the Canary currents in the north and the Benguela currents in the south; is characterized by high productivity and a particularly rich fish production (UNEP 1999). Pelagic and demersal fish are found with a large variety of other fish species as well as various species of crustacean, lobsters, deep-sea shrimps and prawns. Pelagic tuna fish also constitutes an important industry in the region, especially Cape Verde and Canary Islands (UNEP 1999). Lobsters are fished throughout the region while deepwater shrimp and prawns are trawled as well, with intertidal molluscs being harvested on a daily basis. These marine resources represent a significant source of protein in Ghana, for instance, consumption of marine products exceeds that of meat derived from terrestrial resources. However, these marine areas are affected by man's activities; over exploitation and impacts from land based settlements and activities in terms of industrial, agricultural, urban and domestic sewerage run off and other mining activities such as oil and gas etc. (particularly off the coasts of Angola, Gabon and Nigeria) (UNEP 1999). Invertebrates such as intertidal molluscs, reptiles (turtles and crocodiles), marine mammals (West African manatee and some shark species) are threatened by hunting and trapping (UNEP 1999).

### **2.4.5 Atmospheric Pollution**

Atmospheric pollution has become an issue that needs to be dealt with in the WACAF region. Atmospheric pollution results from gaseous and particulate emissions, the primary aspects coming from industries and vehicles in particular around big cities (UNEP 1999). For example Lagos, Dakar, Abidjan and Douala.

## **2.4.6 Climate Change and Sea Level Rise**

The effects of climate change and sea level rise could pose significant threats to the region. As a result of global warming, the penetration of heat into the ocean leads to the thermal expansion of the water; this effect, coupled with the melting of glaciers and ice sheets, results in a rise in sea level. Sea-level rise will not be uniform globally but will vary with factors such as currents, winds, and tides, as well as with different rates of warming, the efficiency of ocean circulation, and regional and local atmospheric (e.g., tectonic and pressure) effects (IPCC 2004). It is estimated that sea level would rise, on average, about 5 mm/yr, within a range of uncertainty of 2–9 mm/yr (IPCC 2004).

For further information refer to the Intergovernmental Panel for Climate Change <http://www.ipcc.ch/>.

## **2.5 Activities**

### **2.5.1 National Contingency Plans**

#### **Institution and co-ordination of national contingency plans in the West and Central African region (WACAF/1)**

In co-operation with IMO, assistance has been provided to ten States of the region to develop national contingency plans for marine emergencies involving pollution; two of these contingency plans were formally adopted (Congo, Côte d'Ivoire). Guidelines for the preparation of national contingency plans for industrial accidents and for industrial hazard analysis have been prepared in co-operation with UNIDO (UNEP, RSRS 54); information on the current state of preparation and intervention capability in case of major industrial accidents was collected during field missions to Liberia and Senegal; a regional industrial risk assessment has been carried out for the major industrial sectors in the five geographical zones which constitute the region (UNEP 1989).

#### **2.5.1.1 Current Projects**

[to come]

### **2.5.2 Pollution Control**

#### **Development of environmental impact assessments for typical coastal sites and regional seminar to review the results (WACAF/4).**

Regional training courses will be undertaken on environmental assessment and coastal pollution reduction and control; and regional seminar workshops on Environmental Impact Assessment and Cost benefit Analysis (UNEP 1989).

## **Assessment and control of pollution in the coastal and marine environment of the West and Central African region (WACAF/2)**

In co-operation with FAO, IOC, WHO and IAEA twenty-three research and university institutes and laboratories from ten countries were organized in a network of institutions for monitoring the quality of the marine environment; the first assessment of the state of marine and coastal waters in the West and Central African region was accomplished; The first phase of WACAF/2 was completed and its second phase, concentrating on activities which will result in proposals for concrete pollution measures, started in late 1989; three workshops have been conducted since then. These are:

- Workshop on Assessment and Control of Pollution in the Coastal and Marine Environment of WACAF (Accra, Ghana, 3-7 September 1990);
- Training Workshop on Oceanographic Factors affecting Transport of Pollutants in the Coastal and Marine Environment (Lagos, Nigeria, 24-28 September 1990); and
- Training Workshop on Analysis of Organic Pollutants in Environmental Samples (Ibadan, Nigeria, 14-27 October 1990);

A regional workshop on coastal erosion was convened (Accra, Ghana, 28 March - 2 April 1990), in co-operation with the Organization of African Unity (OAU). A pilot project on the control of coastal erosion, in co-operation with OAU, is being implemented in Bénin; the project will be used as a demonstration for the use of local resources and low-cost technologies. The draft of a protocol on transboundary movement of hazardous wastes has been prepared as a possible supplement to the Basel and Abidjan conventions. Support was provided to the regional Seminar on Waste Management and Waste Disposal at Sea (Abidjan, Côte d'Ivoire, 28 May - 1 June 1990), convened by IMO and IOC. A report on the state of the marine environment in the West and Central African region was completed, in co-operation with FAO and IOC (UNEP, RSRS 108). A Task Team was established in mid 1989 to assess the potential impact of expected climate changes on the marine and coastal environment of the West and Central Africa and to recommend policies and measures for mitigation of that impact; the report of the Task Team is near completion. Additional protocols to the Abidjan convention, dealing with control of pollutants from land-based sources and with control of pollution by dumping of wastes, are planned to be drafted; A national contingency plan for maritime emergencies involving pollution is planned to be developed for two additional countries, in co-operation with IMO. Assistance is planned to be provided, in co-operation with FAO and IMO, to analyze the state of national legislation relevant to the protection of the marine environment. The early establishment of a Regional Coordinating Unit for the Action Plan is seen as an important step towards a more vigorous development of the Action Plan. Was planned to be established in 1991, first in Nairobi as a transitional measure lasting not more than 12 months before it is transferred to its permanent site in Abidjan.

### **2.5.2.1 Current Projects**

#### **NORWAY**

**Cost (US\$):** 2 million

**Period:** 2003-2006

**Partners:** Norwegian Government, GPA, GEF

**Objective:** To implement GPA Partnership Programme for 2002-2006 in the East African & West and Central African Regions

**Expected Outputs:**

- Common regional monitoring methods agreed and pilot monitoring carried out;
- Improved knowledge of priority pollutants and carrying capacity;

Awaiting approval by Norway  
(Regional Seas 2003)

### **2.5.3 Legislation**

**Assistance to States in development of environmental legislation and its harmonization with the Abidjan Convention (WACAF/5)**

In co-operation with FAO and IMO reports on the state of national legislation relevant to the protection of the marine environment have been prepared for Gabon and Ghana. Intensive individual and group training of technical and scientific personnel has been organized in several areas identified as priorities by the Action Plan; and technical assistance (equipment, supplies and experts) was provided to national institutions participating in the projects carried out in the framework of the Action Plan (UNEP 1989).

#### **2.5.3.1 Current Projects**

### **2.5.4 Coastal erosion**

**Control of coastal erosion in West and Central Africa (WACAF/3)**

Coastal erosion, a problem faced by most West and Central African States, has been approached, in co-operation with UNESCO and UN-DIESA, through a project which provided the region with basic scientific information about the causes and processes leading to coastal erosion, as well as about the technical measures which may mitigate the problem; a manual on training, research and control of coastal erosion as applied to the West and Central African region has been prepared (UNEP 1989).

**Preparation of a manual on training, research and control of coastal erosion as applied to West and Central Africa, in co-operation with UNESCO (WACAF/6)**

Information to come

**Establishment of a regional documentation center on coastal erosion in West and Central Africa (WACAF/7)**

Information to come

#### **2.5.4.1 Current Projects**

**Combating coastal area degradation and living resources depletion in the Guinea Current Large Marine (GCLME) through regional actions**

**Cost (US\$):** 287,280

**Period:** 2002-2003

**Partners:** UNIDO, UNDP, UNEP

**Objective:** To develop an effective approach to prevent and control pollution in the Gulf of Guinea and conserve biodiversity in its Large Marine Ecosystem

**Expected Outputs:**

- Regional Coordination and Support Centre created and organized;
- Completed and endorsed SAP;
- Implementation of 6 national and 3 regional demonstration projects completed;
- Formulated Regional Programme of Action on Land-Based Activities and endorsement of new Protocol for the Abidjan Convention;
- Joint Regional Fisheries assessment and pollution surveys completed;
- Organized donor conferences;
- Development and implemented actions for (1) recovery of depleted fish stocks, (2) restoration of damaged habitats including mangroves, and (3) reduction and control of coastal pollution;
- Established GCLME Compact for the assessment and management and sustainability of fish and fisheries of the ecosystem.

(Regional Seas 2003)

## **2.5.5 Specially Protected Areas**

### **Identification, establishment of specially protected areas in the West and Central African region, in Co-operation with IUCN (WACAF/8)**

In 1991, an assessment of critical habitats for fish, marine mammals and wildlife, particularly in estuaries, deltas, mangroves, wetlands, coral reefs and seagrass beds was carried out by IUCN and IOC and the conservation requirements were identified. In 1992, a report was prepared for UNEP by IUCN was issued on 'Identification, Establishment and Management of Specially Protected areas and Regional Conservation Priorities', including country reports from eleven west and central African countries (UNEP 2001).

#### **2.5.5.1 Current Projects**

## **2.5.6 Marine Mammals**

### **Determination of the distribution and status of marine mammals in West and Central Africa, in co-operation with IUCN (WACAF/9)**

In the framework of the Marine Mammals Action Plan, IUCN coordinated the conduct of a study on the biology, ecology and behavior of the West African manatee and organized a training course on the conservation of marine mammals in 1992 (UNEP 2001).

### **2.5.6.1 Current Projects**

Information to come

## **2.5.7 Fisheries**

The biennial work programme adopted in March 2000 by the Parties to the Convention includes a section on 'management of fisheries, mangroves and associated ecosystems'. The envisaged fishery activities include:

- Reviewing the status and effectiveness of management structures of fisheries, mangroves and associated ecosystems;
- Implementing effective management structures where non-existent;
- Monitoring and surveying of organic and inorganic pollutants and their effects on fisheries; and
- Building capacities and raising public awareness on the impact of mangrove deforestation on the fish spawning grounds, on the fauna and the loss of the productivity (UNEP 2001).

In 1991, an assessment of critical habitats for fish, marine mammals and wildlife, particularly in estuaries, deltas, mangroves, wetlands, coral reefs and seagrass beds was carried out by IUCN and IOC and the conservation requirements were identified. In 1992, a report was prepared for UNEP by IUCN was issued on 'Identification, Establishment and Management of Specially Protected areas and Regional Conservation Priorities', including country reports from eleven west and central African countries (UNEP 2001).

### **2.5.7.1 Current Projects**

Information to come

## **3 Publications**

### **3.1 Regional Seas Reports and Studies**

Link to the Regional Seas Reports and Studies:

[http://www.earthprint.com/show.htm?url=http://www.earthprint.com/cgi-bin/ncommerce3/CategoryDisplay?cgrfnbr=21240&cgmenbr=27973&CGRY\\_NUM=&next=1](http://www.earthprint.com/show.htm?url=http://www.earthprint.com/cgi-bin/ncommerce3/CategoryDisplay?cgrfnbr=21240&cgmenbr=27973&CGRY_NUM=&next=1)

### **3.2 Technical Reports**

Information to come

### **3.3 Other Publications**

Information to come

### **3.4 Meeting Reports**

Information to come

### **3.5 Website Links**

Pan-African Conference on Sustainable Integrated Management (PACSIKOM)  
Summary Record of the Main Conclusions and Specific Recommendations.  
Framework for Intergovernmental Dialogue, Regional and International Cooperation  
Issues Affecting Africa's Coastal and Marine Environment  
<http://www.unep.ch/seas/main/eaf/pacsic.html>.  
East African Coastal Database: <http://www.unep.org/easternafrica/>.  
Cape Town Declaration <http://www.unep.ch/seas/main/eaf/eafctd.html>. The Cape Town  
Declaration on an African Process for the Development and Protection of the Coastal  
and Marine Environment, particularly in Sub-Saharan Africa  
A Global Representative System of Marine Protected Areas. Marine Region 8: West  
Africa. <http://www.deh.gov.au/coasts/mpa/nrsmpa/global/volume2/chapter8.html>

**AAFC (ATLANTIC AFRICA FISHERIES CONFERENCE) Ministerial Conference on Fisheries  
Cooperation among African States bordering the Atlantic Ocean**

[http://www.fao.org/fi/body/rfb/AAFC/aafc\\_home.htm](http://www.fao.org/fi/body/rfb/AAFC/aafc_home.htm).

**COREP REGIONAL FISHERIES COMMITTEE FOR THE GULF OF GUINEA**

[http://www.fao.org/fi/body/rfb/COREP/corep\\_home.htm](http://www.fao.org/fi/body/rfb/COREP/corep_home.htm).

**CECAF FISHERY COMMITTEE FOR THE EASTERN CENTRAL ATLANTIC**

[http://www.fao.org/fi/body/rfb/CECAF/cecaf\\_home.htm](http://www.fao.org/fi/body/rfb/CECAF/cecaf_home.htm).

**SRCF SUB-REGIONAL COMMISSION ON FISHERIES**

[http://www.fao.org/fi/body/rfb/SRCF/srcf\\_home.htm](http://www.fao.org/fi/body/rfb/SRCF/srcf_home.htm).

Resource Africa <http://www.resourceafrica.org/directory/2/index.html>.

#### **Angola**

Kissama Foundation <http://www.kissama.org/>.

#### **Cameroon**

African Rainforests and the Conservation of Biodiversity

<http://www.earthwatch.org/europe/limbe/limbe.html>.

Sustainable Development Networking Program - Cameroon

<http://www.sdn.undp.org/countries/af/cm/>.

WWF- Cameroon Programme Office <http://www.wwfcameroon.org/>.

Tropenbos International Côte d'Ivoire Programme

[http://www.tropenbos.nl/sites/site\\_cote.php](http://www.tropenbos.nl/sites/site_cote.php).

#### **Equatorial Guinea**

Bioko Biodiversity Protection Program <http://www.bioko.org>.

## **Namibia**

Namibia's Approach to Community-based Natural Resource Management  
<http://www.cdr.dk/sscafrica/jones-na.htm>.

## **South Africa**

Empowerment for African Sustainable Development <http://easd.org.za/>.

Endangered Wildlife Trust <http://www.ewt.org.za/>.

Environmental Justice Networking Forum <http://www.botany.uwc.ac.za/infcreep/ejnf.htm>.

Institute of Natural Resources <http://www.inr.unp.ac.za/>.

The Centre for Wildlife Management. University of Pretoria  
<http://www.wildlife.up.ac.za/centre/>.

# **4 Calendar of Events**

Information to come

# **5 Professionals**

## **5.1 List of Technical Consultants**

Information to come

## **5.2 List of Institutions**

Information to come

# **6 Advertisements**

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# **7 References**

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<http://www.cia.gov/cia/publications/factbook/>.