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SHARING KNOWLEDGE AND EXPERIENCE AMONG INSTITUTIONS

Compilation of information regarding financial resources contained in the first national reports to the Convention on Biological Diversity

Note by the Executive Secretary

1. The Executive Secretary is pleased to circulate herewith a compilation of information concerning financial resources contained in the first national reports of developed countries Parties to the Convention on Biological Diversity.

2. The information is reproduced in the present document as they were received by the Secretariat and without formal editing.

* CBD-GEF/WS-Financing/1.

AUSTRALIA

Article 20 Financial resources and financial mechanism

Domestic obligations

Article 20 of the Convention on Biological Diversity states that each Party should undertake to provide, in accordance with its capacities, financial support for the implementation of the Convention.

The National Strategy for the Conservation of Australia's Biological Diversity recognises that its implementation requires a commitment from all spheres of government, the private sector and the community. A priority action in the Strategy is to establish, by the year 2000:

> *mechanisms for resourcing the development and implementation of programs and plans for the continuing management of Australia's biological diversity on public and private lands.*

Governments have also agreed to:

> *review funding and administration of existing programs that relate to the conservation of biological diversity to identify potential for reallocation of resources for improved efficiencies and the need for increased funds to ensure implementation of the Strategy.*

The funding allocated to the conservation and sustainable use of biodiversity in Australia is very difficult to quantify. The Commonwealth Government, State and Territory Governments, Local Government, the private sector and the community all contribute significant resources, some of it in kind. Many of these resources are not reported in official figures and thus it is not possible to reflect accurate overall figures in a national report. In addition, biodiversity conservation is often fully integrated into programmes for resource use. Consequently, it can be difficult to separate biodiversity conservation and sustainable use expenditure from other related expenditure.

The major Commonwealth commitment to implementing the strategy is reflected in the Natural Heritage Trust programme (see section on Article 6). Funding under the Natural Heritage Trust will be spent on the environment, sustainable agriculture and natural resource management in a partnership between the Commonwealth Government, State and Territory Governments, and the community. The trust will outlay $A1.249 billion from 1997-98 to 2001-02. This will be supported by a similar level of funding from the States and Territories, and from the community.

In the 1997-98 budget the Commonwealth Government also allocated $4.4 million over the next two financial years to pursue the objectives of the Strategy and to meet Australia's obligations under the Convention. This includes Australia's contributions to the Convention's Trust Fund.

International obligations

Article 20 of the Convention also commits developed country Parties to providing new and additional financial resources to assist developing countries to meet their obligations under the Convention.

Australia's overseas aid programme assists developing countries to reduce poverty and improve the standard of living of their people through sustainable development. AusAID, the Australian

Agency for International Development, manages Australia's official overseas aid programme, which is valued at $1.43 billion in the 1997-98 financial year. Its main focus is the Asia-Pacific region. Aid projects are developed and implemented in consultation with developing countries, responding to their most pressing needs and taking account of areas of Australian expertise.

The overseas aid programme is funding programmes and projects that help to conserve and sustainably use biodiversity, while simultaneously assisting developing countries, primarily in the Asia-Pacific region, to reduce poverty.

AusAID is currently funding more than $26 million of biodiversity-related projects and activities. This assistance is provided through the following mechanisms.

-- **Strengthening human and institutional resource**s. These projects seek to increase the capabilities and knowledge of people in developing countries to protect existing biodiversity. For example, through the Rapid Biodiversity Resource Appraisal Project (BioRap), funding of over $500 000 is being provided by AusAID to equip teams of in-country specialists with analytical tools for assessing conservation priorities. The Australian Conservation Training Initiative, undertaken jointly with the Zoological Parks Board of New South Wales and the New South Wales National Parks and Wildlife Service, provides a range of professional training programmes for nationals from developing countries.

-- **Direct efforts to conserve biodiversit**y. Ecosystems and species which are threatened in their natural habitats can be protected through both on and off-site conservation measures. Such conservation also helps improve the lives of people who depend on these species. A total of $2.6 million has been made available through the South Pacific Regional Initiative on Forest Genetic Resources Project. The project seeks to develop on-site and off-site conservation strategies for priority tree species through the designation of reserves and through germplasm collection and propagation. AusAID has also funded efforts to reintroduce the famous Tahki horse, which used to range the Gobi Desert until the 1960s.

-- **Supporting multilateral and regional effort**s. In recognition that biodiversity loss is a global problem, contributions have been made to the Global Environment Facility. The facility is a source of funds for developing countries to use for environmental projects. Australia has committed nearly $73 million to the Global Environment Facility over the period 1991-92 to 1997-98, of which 35% went to biodiversity projects. AusAID support is also provided for the implementation of international agreements, such as the Convention on Wetlands of International Convention), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Australia has in the past four years made a number of voluntary contributions to assist work under the Convention. These have included:

- $162 580 to assist developing countries, in particular those in the south-east Asia and south Pacific regions, to participate in a range of meetings related to the Convention;
- $55 000 to assist Indonesia host the second Conference of the Parties to the Convention on Biological Diversity in 1995 and for co-sponsorship of the successful International Biodiversity Technology Fair and the Global Biodiversity Forum, held at the first and second Conference of the Parties to the Convention;
- $155 938 to fund two indigenous knowledge positions in the Convention Secretariat.

As discussed under Article 16, the Australian Centre for International Agricultural Research contributes over $6 million each year for research into biodiversity conservation, improvement and utilisation.

AUSTRIA

FINANCIAL RESOURCES, ARTICLE 20

No detailed presentation of costs is possible at this time. Based on the lack of an allocation parameter for biological diversity, and the fact that financial appropriations are made by a wide range of Federal and Provincial authorities, Austrian budgetary measures are virtually impossible to compile. Furthermore, the ongoing discussion about the type of strategy and the respective implementation measures precludes providing details on any potential funding requirements.

With regard to the funding of international projects, it is very difficult to breakdown the allocated project funds according to projects relevant for biodiversity. Austria's financial contribution to the pilot phase of GEF was relatively substantial (AS 400 million). A considerable proportion of this budget was used for biodiversity-related projects. Austria committed itself to providing a sum of AS 231.51 million for the first replenishment, of which 172.6 million has already been deposited.

In addition, a bilateral "Austrian Global Environment Cooperation Trust Fund" was established. This is administered in trust by the World Bank and to date has been endowed with special drawing rights totalling ATS 1.5 million.

Austria's annual contribution to the international nature conservation sector (Convention on Biological Diversity, International Convention for the Regulation of Whaling, IUCN, CITES, International Waterfowl and Wetlands Research Bureau, Ramsar Convention, Federation of Nature and National Parks in Europe) amounts to ca. ATS 800 000.

In order to accelerate the implementation of the provisions of Strassburg Resolution S-2 of the Conference of Ministers with regard to the protection of European forests, Austria has contributed US$ 10 000 to EUFORGEN, a program coordinated by IPGRI in close cooperation with the FAO.

Austria contributes ATS 110 000 annually to IPGRI.

In 1985, Austria joined CGIAR, the World Bank consulting group for International Agricultural Research. As of 1993, the annual contribution amounts to US$ 1.5 million.

BELGIUM

6. Development co-operation

6.1. Introduction

This chapter presents an overview of the Belgian development aid through contributions to financial mechanisms and transfer of technology, including international training programmes, in order to support developing countries in their quest for economic, social and institutional growth, bearing in mind the sustainable development for future generations.

The Belgian Federal Government is strongly committed to the principles and guidelines contained in the Declaration of Rio (UNCED 1992) and has started to implement them in its development assistance programmes ever since.

Belgium also adheres to the co-ordinated approach of donor countries, through an active participation in international fora, such as the European Union and the OECD. Considering the global character of the loss of biodiversity, only a well co-ordinated, international strategy may stand a chance of success.

6.2. Contributions to financial mechanisms

6.2.1. Belgian Official Development Assistance

As a whole, the Belgian Official Development Assistance (ODA) disbursements for 1995 amounted to 1.03 billion US$, representing 0.38% of the gross national product (GNP). This percentage led Belgium to occupy the 8th place among the OECD/DAC-countries. An average of 40% of total ODA goes to multilateral contributions.

6.2.2. Belgian Agency for Development Co-operation

Among the multilateral financial mechanisms, the Global Environmental Facility (GEF) receives 1.68% of its total Core Fund budget from the Belgian Federal Government through the Belgian Agency for Development Co-operation (BADC), summing up 1.1 billion BEF, paid in cash, for the period from 1 July 1994 to 30 June 1997, distributed as follows:

1994-1995: 320,000,000 BEF
1996: 390,000,000 BEF
1997: 390,000,000 BEF

During the GEF Pilot phase, Belgium contributed 198,532,682 BEF (4,420,900 SDR) to the Core Fund and additionally co-financed a solar water heating project in Tunisia and a West African community-based natural resources and wildlife management project in Burkina Faso and Ivory Coast up to 247,270,324 BEF, overhead costs included (5,000,000 SDR).

Belgium is member of a group of bilateral donors which contribute to the ‘Regional Environmental Information Management Project' in the Central African Region, with an amount of 30,000,000 BEF. The project aims at improving the planning and the management of the natural resources in the Congo Basin, with a particular focus on the preservation of biological diversity.

Since the prevention of further loss of biodiversity and the restoration of already lost resources is part of the solution, efforts made in the field of forestation, reforestation and the combat against desertification should also be reported.

Over the last 10 years the Belgian Federal Government has supported the Special Programme for Africa (phase I and II) with roughly 1.8 billion BEF, through the International Fund for Agricultural Development (IFAD). Field projects comprise rural development, water management, forestation, soil degradation, in those areas of Sub-Saharan Africa that are especially vulnerable to drought, desertification and climate change.

Within the countries belonging to the Southern African Development Community (SADC), a similar initiative is under way through bilateral co-operation projects, totaling close to 300 million BEF for the period 1993-1997.

As of 1996 a voluntary contribution, amounting to 2,000,000 BEF per year, is also made to the interim Secretariat of the Convention to Combat Desertification.

6.2.3. Federal Office for Scientific, Technical and Cultural Affairs

6.2.3.1. Joint research projects

Joint research projects are also initiated by the Federal Office for Scientific, Technical and Cultural Affairs (OSTC) within the frame of bilateral agreements with i.e. China, Poland and Russia consisting in a transfer of Belgian know-how which has been developed through the national R&D programmes implemented by the OSTC. Yearly the financing of bilateral projects related to biodiversity and environmental protection amounts to ca. 10,000,000 BEF. Examples of such co-operations are the joint study of the endemic fauna (invertebrates) of Lake Baikal (since the beginning of the 90s the OSTC also supplied a contribution of 200,000 USD to the Baikal International Centre for Ecological Research (BICER)); the establishment of a forest database, using remote sensing techniques, for the monitoring of stands in the Kozienice Landscape Park and Zawierce Forest in Poland; the study and conservation of specific groups of actinomycetes and microfungi from the Yunnan province and Changhai region in China.

Technology transfer to Central and Eastern European countries is also provided for by the OSTC through the granting of research fellowships to post-doc scientists from these countries allowing them to stay in Belgian laboratories during 6 to 12 months. The Belgian host units are those which are involved in the execution of the R&D programmes of the OSTC. Since 1991, 35 (out of 286) fellowships were situated in the field of biological resources (on average 5 yearly).

6.2.3.2. TELSAT research programme

Via the TELSAT research programme, techniques are developed for monitoring at local, regional and global scale of several issues (in)directly related to biodiversity: land cover and land use changes (patterns and evolution in time), land degradation in (semi-) arid regions, landscape morphology, habitats of endangered species or indicator species for biodiversity.

Earth observation data at different geographic scales, related to other data sources via ‘geo-information' systems contribute to understanding and monitoring driving forces for changes in the ecosystems. Development of spatial models allows to conduct simulations of likely impacts of human actions leading to a transformation of the landscape on key landscape attributes such as biodiversity.

Some demonstration studies regarding landscape and habitat monitoring were conducted in Belgium and at a Western European scale. Several research projects, conducted with local services for natural resources management in Western and Central Africa, and/or with international organisations such as the Worldbank/Environment, FAO/Forest, IUCN and WWF International, permit a notable transfer of technology with regard to improved techniques for monitoring and planning purposes concerning the sustainable management of natural resources.

The issues ‘contribution to environmental accounting' as well as environmental impact assessment of development projects are also part of the research agenda of the TELSAT programme.

6.3. Future resource allocations

The exact amount and type of future contributions are rather difficult to predict, but it is fair to state that the Belgian Federal Government will continue to live up to its commitments under Agenda 21 in general and the ones already established. In this respect Belgium is considering to increase its contribution to the second replenishment of GEF, to be finalised shortly, by some 10% with regard to GEF-1, i.e. over 1.2 billion BEF.

6.4. Technology transfer and capacity building

At the federal level, the BADC has always included the aspects of technology transfer and capacity building in its bilateral agreements. Transfer of environmentally sound technology should allow rapid growth of developing countries while safeguarding the general environment and natural resources. Capacity building serves the same purpose, as it prepares the individual countries for dealing with the wide array of international agreements, national plans, technology evolution, etc.

BADC also supports International Course Programmes and International Training Programmes at Belgian universities, featuring topics such as biotechnology applied to agriculture, biostatistics, fundamental and applied marine ecology, tropical molecular biology, etc.

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CANADA

4. International Cooperation—Sharing Our Experience

Canada is strongly committed to finding lasting international solutions to the global loss of biodiversity. It is cooperating with developing countries on a broad range of activities aimed at developing their capacity to conserve biodiversity and use biological resources in a sustainable manner. Through contributions to the Global Environment Facility, Canada has provided new and additional funding to address global environmental concerns, including biodiversity loss. Canada’s Official Development Assistance programs provide resources and technical assistance to support sustainable development in developing countries, including projects and programs designed to help these countries reap long-term benefits from the sustainable use of their biological resources. Other Canadian governments and non-government organizations also carry out valuable work in developing countries that support the objectives of the Convention.

Canadian Biodiversity Strategy – Strategic Direction 5.1:

- participate in international efforts to coordinate and enhance activities to the conservation of biodiversity and the sustainable use of biological resources

Canadian Biodiversity Strategy – Strategic Direction 5.2:

- support implementation of the Convention in developing countries by co-operating with developing countries to improve their capacities to plan and implement biodiversity conservation policies, strategies, plans and to use biological resources in a sustainable manner.

Since 1992, Canada has supported more than 30 specific projects designed to achieve the objectives of the Convention. For example, in Costa Rica, Canada supports a conservation project to preserve the diverse natural resources of the Arenal region, which contains 36% of the country's biodiversity. In Africa, Canada is involved in a project to conserve the biodiversity of Lake Malawi, one of the planet's largest freshwater bodies and home to a large variety of fish. In the South Pacific, Canada supports a project for the protection and survival of sea turtles, six of the seven species of which live in the region.

Canada is also working to help other nations meet their sustainable agriculture objectives. Through the International Development and Research Centre (IDRC), Canada supports research on food systems in regions where problems of food insecurity, poverty and environmental degradation are most urgent. Through the IDRC's Sustainable Use of Biodiversity program, the capacity of local and indigenous peoples to protect, access and sustainably use biodiversity and knowledge of biodiversity is enhanced. In addition, the Canadian International Development Agency supports projects that promote environmentally-sound farming practices and rural economic diversification in developing countries.

Since Canada committed at UNCED to provide initial funding to expand an international network of model forests, interest in the concept continues to grow. More than 25 countries are considering joining the network. Canada also participates in various exercises related to criteria and indicators for the sustainable management of boreal and temperate forests, particularly those outside Europe.

Since UNCED, Canada has taken part in a series of global negotiations that devote particular attention to the needs and capacities of developing countries. For example, Canada has helped fund both the process and the involvement of developing states in negotiating and implementing the Convention to Combat Desertification.

Canada has also supported the Convention on Biological Diversity by co-sponsoring workshops and symposia in Costa Rica, Chile and Côte d'Ivoire; participating in and hosting meetings of the UNEP Expert Panels; and playing an active role in the three meetings of the Conference of the Parties to the Convention and meetings of the Subsidiary Body on Scientific, Technical and Technological Advice. At the first two meetings of COP in the Bahamas and Indonesia, Canada co-hosted a Biodiversity Technology Fair. Through the Commission for Environmental Cooperation, Canada has entered into cooperative biodiversity programs with NAFTA partners, and the Canadian Museum of Nature is assisting other countries in producing biodiversity country studies. Canada is also collaborating on an OECD project to develop biodiversity indicators and, with the Convention Secretariat, on the creation of an international clearing-house mechanism for the exchange of scientific and technical information. Canada is an active participant and supporter

of the IUCN through its chairmanship of the Species Survival Commission and its hosting of the World Conservation Congress in 1996, the largest international environmental gathering since Rio.

DENMARK

EUROPEAN COMMUNITY

3.4.8 Development and Economic Co-operation

Development Policy

Developing Countries offer a wide spectrum of habitats and ecosystems, of which forests, grasslands and marine/coastal ecosystems are generally the most significant. As noted in *Part* 2, biodiversity tends to increase towards the equator, with the result that tropical countries host the most diverse habitats and species on the planet. Biodiversity in these countries is subject to all the same development pressures as those in Europe with the added pressures of poverty, population growth and land shortage.

The European Community is involved in development and economic co-operation activities with partner countries in the Africa/Caribbean/Pacific region (ACP), Asia and Latin America (ALA) and the Mediterranean region (MED). Environment is integrated into most co-operation agreements with Asian partner countries/regions and, to date, all Latin American agreements. Environment is also mentioned specifically in the Lomé IV Convention. In Protocol 10 of the Lomé Convention, specific mention is made of the need for efforts to conserve endangered tropical forests and their biodiversity, as well as the development of buffer zones, in conformity with the Biodiversity Convention. Biodiversity has been taken up in the National and Regional Indicative Programmes of several countries/regions under the 8 th European Development Fund. The Barcelona Declaration, adopted in November 1995 by the Euro-Mediterranean Conference, covers the environmental sector in detail and on 28 November, in Helsinki, the Euro-Mediterranean Ministerial Conference on the Environment adopted a short and medium term environmental Action Programme for the region, which lays down more concrete actions and priorities. Biodiversity is acknowledged as inter-related to all priority fields of action of the Programme (integrated water management, integrated waste management, hot spots, integrated coastal zone management and combating desertification).

Integration of environmental and biodiversity considerations into development and economic co-operation has two distinct aspects:

- consideration of environment in overall development and co-operation activities to reduce potentially negative impacts on the environment of large-scale infrastructure projects (dams, roads, irrigation projects) which have typically been funded in the past; and
- spending on specific environmental projects.

In addition, current moves to develop a specific policy on indigenous peoples and development co-operation are particularly relevant to the Community's support for Article 8(j) of the Biodiversity Convention which addresses the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and

sustainable use of biodiversity. The Community has also provided financial support for a number of projects that address indigenous peoples' rights and interests in relation to biodiversity.

Integration

Increasing attention is paid to the need to integrate principles of sustainable development into funded projects and other forms of external co-operation to ensure that environmental opportunities are pursued in a positive way.

Both the Lomé Convention and the regulations governing EC co-operation with Asia, Latin America and the Mediterranean contain provisions to consider environmental aspects in all activities. The importance attached to the use of environmental impact assessments (EIA) was further demonstrated by a Resolution of the Council and Member States in 1996 requiring that EIAs be conducted for all development cooperation. The EIA procedures are continuously strengthened through development of clearer rules regarding which projects should be subject to EIAs, improved information flows and the development of support material for project managers.

In April 1997 the Council adopted Regulation 722/97 *(on environmental measures in developing countries in the context of sustainable developmen*t) which provides for ECU 45 million in the form of grants to a variety of aid recipients for the period 1997-99. This financial assistance is intended for activities in developing countries which enable people to integrate environmental protection and sustainable development concepts in Community programmes and thus into daily life. Activities to be carried out under this Regulation (Article 2) include:

- assisting developing countries in designing and implementing national strategies arising from international conventions;
- preserving biological diversity;
- preserving areas of high environmental pressure and/or trans-regional ecosystems such as marine and coastal areas; and
- initiatives aimed at protecting ecosystems and habitats and maintaining biological diversity.

Spending on Specific Projects

Regulation 443/92 on financial and technical assistance and economic co-operation with the Developing Countries in Asia and Latin America explicitly states that 10% of resources for 1991-95 should be allocated to projects aimed at protecting the environment. A recent evaluation indicates that this target had been met, though more could be done to ensure systematic integration of environment across development activities.

The more recent Regulation 1488/96, which establishes a similar assistance and cooperation programme for Mediterranean countries, contains no specific target for allocation of funds to environmental projects but provides for special interest rate subsidies for loans from the European Investment Bank (EIB) for environmental purposes. Approximately 5% of resources have been committed to environmental spending to date, and other assistance has been provided through the participation of the Commission in METAP (Mediterranean Technical Assistance Programme) and via the activities of the EIB.

In total, funds allocated to environmental projects by the European Commission in the period 1991-95 amounted to 1,339MECU, representing 8.5 per cent of the EC's total commitments to

Developing Countries in the Asia, Latin America and Mediterranean and ACP regions. Of this sum, some 6 per cent was devoted to projects specifically targeting biodiversity. Spending on tropical forest projects (see below) also benefits biodiversity.

The European Community intends to strengthen its co-operation with Developing Countries to implement the objectives of the Biodiversity Convention in the context of development and economic co-operation. A two-year project has recently begun, in cooperation with IUCN - The World Conservation Union, aimed at developing guidelines for activities related to biodiversity conservation. The guidelines will be broadly modelled on the existing Forest Sector Development Guidelines (as to which, see *Section 3.4.4* above). Immediate objectives will be to improve the planning, implementation and evaluation of biodiversity conservation programmes and to increase the level of effective co-ordination and co-operation between the European Community and Member States in the delivery of such programmes.

Desertification is a priority area in many of the Lomé IV national and regional indicative programmes. In particular, since 1990, about 185MECU has been provided for programmes to combat desertification in Africa, and just under 105MECU for desertification projects in southern Mediterranean countries. These areas are of particular interest for biodiversity since they are likely to contain species at the extreme limits of their range. In addition, the Community has provided funding of around 10MECU to two large projects in Central Asia under the TACIS programme.

Within overall EC spending on development assistance and economic co-operation, two financial instruments exist which are specifically intended to promote environmental and natural resource protection in Developing Countries: the environment and tropical forest budget lines. They are highlighted in *Boxes 4.6* and *4.7* below. In particular, the Council Regulation which governs the tropical forest budget line B7-6201 makes specific mention of the Biodiversity Convention. Under the tropical forests budget line, 40% of funds were committed to the 'conservation and protection' theme (1992-1996). 20% of the environment budget line B7-6200 was committed to the same theme for the same period. EDF funding to the environment gave nearly 9% to this theme. A Regulation on environmental measures in developing countries in the context of sustainable development was adopted in 1997.

Box 3.4.6 Environment in Developing Countries (Budget Line B7-6200)

A budget line for 'environment in Developing Countries' was first launched in 1982. Since UNCED, the budget has been significantly increased and its objectives broadened to include the promotion of sustainable economic and social development and the protection of the environment and natural resources. The financial allocation for 1997 was 15MECU, which represents a decline from the 1993 peak of 26MECU. The Environment budget aims at implementation of smaller pilot programmes which have a catalysing effect. Biodiversity has been a priority since 1992 and more than half the funds have been spent on rural issues (biodiversity, wetlands, natural resources) and coastal and marine areas.

Box 3.4.7 The Tropical Forests Budget Line (B7-6201)

A special budget line for tropical forests was created in 1991 and was legally underpinned in 1995 with the adoption of a Council Regulation on operations to promote tropical forests. The budget allocation for 1997 was 50MECU. However, other tropical forestry programmes financed by the Community, including research and monitoring activities, bring total spending on tropical

forests to about 100MECU per year. The main areas of activity funded are the sustainable management of protected areas and sustainable exploitation of forest resources but special support is also being provided to indigenous peoples who have obtained recognition of collective property rights, as is the case in Bolivia, Brazil, Colombia and Ecuador. In the Philippines, where deforestation rates are particularly high, the Community has helped to establish a network of protected areas designed to safeguard areas of great biodiversity while taking into account the concerns of indigenous peoples (ECU 11 million in 1993). The Avenir des Peuples des Forets Tropicales (APFT) programme (5.2MECU) works at a local level with forest peoples through ACP countries on the conservation and sustainable use of forest resources, and aims to provide practical tools for the integration of forest people and indigenous knowledge into the conservation/sustainable use process.

Economic Co-operation: PHARE and TACIS

Economies in transition face many of the same threats and opportunities in respect of their biotic resources as the European Community but often with the added pressure of acute lack of funding for ongoing management of existing protected areas and genebanks.

The European Community has developed Europe ('Association') Agreements with Poland, Hungary, the Czech Republic, Slovakia, Romania, Bulgaria, Latvia, Lithuania, Estonia and Slovenia which lay the foundations for preparing these countries for membership of the Union.

The PHARE programme aims to help Central and Eastern European Countries (CEECs) to build closer political and economic ties with the European Union. PHARE provides grant finance which assists Central and Eastern European Countries (CEECs) to work on transposing the *acquis communautair*e, including environmental legislation and standards, as well as to build their capacity for monitoring and enforcement. A Technical Assistance Information Exchange Office has been set up costing 10MECU. In addition, an environmental approximation facility, DISAE, has been established costing 10 MECU over 3 years to draw local law into line with that of the Community.

The environment has been a priority area since PHARE's establishment in accordance with the wishes of the CEEC countries themselves. Particular attention has been given to the conservation of biodiversity, mainly through *in situ* conservation and the implementation of the Birds and Habitats Directives. Current initiatives include a multi-country forestry and forest biodiversity programme costing 600,000 ECU and the extension of Natura 2000 to include CEECs. In addition, there are several bilateral programmes between Member States and CEECs in the field of nature conservation.

The emphasis has gradually shifted from technical assistance and institutional strengthening to include more support for investment. PHARE's multi-country programmes have been of particular importance in encouraging regional environmental co-operation, particularly in the Black Triangle, the Black Sea, the Danube river basin, the Baltic Sea and through the Regional Environment Centre in Budapest.

The LIFE Regulation is able to provide funding for projects in Mediterranean and Baltic countries as well as in Central and Eastern European Countries which have Association Agreements with the Community. Many of these 'third country' projects relate to *in situ* actions for nature conservation. An example is set out in *Box 4.8* below.

Box 3.4.8 Examples of LIFE Third Country projects relevant to the objectives of the

Convention

Technical Assistance for establishing a system to help decision-making in natural resource management and the environment in Tunisia (1995). This two-year project sought to share European expertise in the field of treatment and use of remote sensing for environmental decision-making. The two major objectives were to extend the MEDGEOBASE database to cover the whole of Tunisia (it started as a database for coastal zone management) and to enhance its value to the national environment agency (ANPE). The total project cost 587,486 ECU, 79% of which was met by the Commission. Major findings of the project included a comprehensive assessment of land use which has assisted in the improved management and protection of the Tunisian coast.

Since 1991, TACIS has fostered the development of links between the European Union and the Newly Independent States by providing grant finance to support the process of transformation to market economies and democratic societies. Know-how is delivered by providing policy advice, consultancy teams, studies and training, by developing and reforming legal and regulatory frameworks, institutions and organisations and by setting up partnerships, networks, twinning and pilot projects. The annual allocation for the TACIS Programme is around 500 MECU. TACIS tackles environmental problems in the NIS and Mongolia mainly through individual country action programmes, the horizontal integration of environmental concerns in all TACIS projects, actions on an inter-state level where TACIS brings together partner countries to co-operate on a regional level and cross-border co-operation programmes. Environment is, since 1996, a priority sector for the TACIS programme. The aim is that around 10% of the TACIS funds should go to environment related projects covering nature conservation, support to regional seas programmes, agri-environmental projects, energy efficiency, the development of National Environmental Action Programmes and raising public awareness on environmental issues. Environmental is a concentration area within the Interstate and the Cross-Border Co-operation Programmes.

Box 3.9 Examples of TACIS environment projects

· *Karelia Park Development and Management (1997).* Karelia is one of the few regions in Northern Europe where significant forest habitats remain relatively untouched. A belt of taiga forests of high conservation value which stretches across the Russian/Finnish border is now under significant threat from timber exploitation and uncontrolled tourism. The main objectives of the project are to improve the livelihood of local people by developing revenue from eco-tourism and to develop management plans and programmes to conserve the biological diversity and value of the Fennoscandia protected areas. An important aspect of the project consists of strengthening the management and administration capabilities of the staff managing the protected areas. The project will cost 3.5MECU.

· *Tuloma River (1997).* Atlantic Salmon sport fishery is an important economic asset for the Murmansk region. However, the stock of salmon has been declining due to the disturbance of migrational routes from sea to riverine spawning grounds by two hydro-electric dams. A key feature of the project will be an investment appraisal of various technical options for restoring natural salmon production in the Upper Taloma River. It is envisaged that returning the stock of salmon to its original (pre-dam) level will result in a significant increase in revenue from sport fishing. The project will cost 1MECU.

· *Carpathian Transfrontier Environmental Network (1997).* The Carpathian mountain system crosses the territory of five European States and contains more than one third of European plant species, many of which are threatened. In order to protect the valuable landscapes and habitats

situated in cross border zones, management plans are being developed for the area in addition to a regulatory framework for conservation. A series of joint pilot sites for sustainable forestry and agriculture projects will be selected and both the Ukraine and Romania are receiving technical assistance in data collection using GIS and training in support of all aspects of the project. The project has been budgeted at 1.5MECU and relates to the GEF project 'Conservation of the Biodiversity of the Trans-Carpathians'.

FINLAND

7.6 Development cooperation, improving access to and transfer of information and technology

Under the obligations of the Convention on Biological Diversity, the contracting industrialized countries are responsible for funding the incremental costs arising from the implementation of the Convention in the developing countries, as calculated in accordance with principles determined by the Conference of Parties (COP). It is vital to the successful implementation of the Convention in the developing countries that the industrialized countries honour their commitments vis-à-vis funding and transfer of information and technology concerning the protection and sustainable use of biological diversity in developing countries. The Contracting Parties shall also promote cooperation in personnel training and expert exchange. (Convention on Biological Diversity. Articles 6, 7, 10, 11, 14, 18; see Appendix 1.)

7.6.1 Principles

The Convention on Biological Diversity is a 'new generation' environmental agreement in that it is as much a development cooperation agreement as an agreement on environmental conservation and nature protection. The main international sector that the convention involves is multilateral and bilateral development aid from industrialized countries to developing countries. This mechanism will help to support the developing countries in preserving their biological diversity and using it sustainably.

The developing countries should be reimbursed for the benefits derived from the use of their biological diversity. The industrialized countries should offer reimbursement in the form of financial aid and transfer of know-how and technology related to the protection and sustainable use of biological diversity. The convention involves a reciprocal obligation to adopt the preservation of biological diversity as a component of national decision-making and various spheres of trade, industry and government. It is hoped that the Convention will provide new motivation for protecting indigenous habitats as gene pools with potential economic value, particularly in the developing countries. This procedure should set a precedent: for the first times ecologically important habitats will be assigned intrinsic economic value in land use planning.

Developing countries are being assisted in the procurement of environmental technology and biodiversity expertise through the clearing house mechanism; also, support is being given to the efforts of developing countries to set up biotechnology industries that use biological resources sustainably and for the transfer of environmental technology.

The developing countries are required to compile country studies on biological diversity (species, genetic resources, major nature conservation sites) as a condition for extensive further funding through the GEF. In these country studies, the developing countries set their national priorities for the conservation of biological diversity and the sustainable use of its components. The main role

of UNEP is to coordinate the implementation of country studies and reports and to organize partnerships. The UNEP Guidelines on Country Studies were approved in 1994.

The preparedness of developing countries to receive help from the World Bank, the GEF and other financial institutions in the biological diversity sector will be limited until they complete their country studies and national strategies. Although most developing countries have begun work on them, their completion has been delayed. Funding decisions by the GEF are increasingly being hampered by a lack of preparation on the part of the recipient countries.

For the developing countries, the Convention on Biological Diversity:

- initiates increasing cooperation with OECD countries in the protection and sustainable use of the living natural environment;
- initiates the surveying of genetic resources;
- initiates development cooperation related to technology transfer (e.g. geographic information systems, remote surveying, biotechnology) through the clearing house mechanism;
- initiates development cooperation with industrialized countries aiming at the surveying of biological resources in a selected developing country, planning their economic use and developing protection systems (twinning).

The implementation of the Convention on Biological Diversity and the national action plan falls within the purview of the Ministry for Foreign Affairs, the Ministry of Trade and Industry and the Ministry of the Environment. The Ministry of Trade and Industry in particular, but also the two other ministries, are participating in the preparation of issues connected with technology transfer, technology commercialization, trade policy and immaterial rights related to biological diversity arising in the Convention and its follow-up.

The research programme on biological diversity coordinated by the Academy of Finland (1997-2002) includes research projects involving developing countries. FINNCHURCHAID could provide a further channel for development cooperation in the sphere of biodiversity.

7.6.2 Measures

Since the mid-1980s, Finnish development aid cooperation has aimed at supporting the efforts of developing countries to alleviate their environmental problems and take environmental aspects into account in all endeavours, for instance by conducting environmental impact assessments of projects. In the most recent strategies, such as the development cooperation strategy for the 1990s (1993) and the Decision-in-Principle of the Council of State concerning development cooperation (1996), emphasis has been laid on helping the developing countries fulfil international environmental obligations.

It is a stated condition of the Finnish development cooperation strategy that the recipient country must participate in combating global environmental hazards. In bilateral development aid, the measures undertaken to combat the depletion of biological diversity are surveyed in cooperation with the target country.

The amount of aid allocated to target countries varies greatly according to the level of development or state of ecosystems in that country. Whenever possible the following points are considered in deciding the amount of aid to be given:

- support for the monitoring of biological diversity and for planning its protection and sustainable use;
- capacity building through training and research cooperation;

- sustainable use of biological resources and technology cooperation;
- support for in situ and ex situ conservation of biological diversity.

In order to include measures aiming at preserving biological diversity in developing countries an integral component of Finland's bilateral development aid cooperation, a fundamental analysis of the challenges posed by international conventions and a systematic survey of needs and opportunities for cooperation are needed as part of development cooperation programming. The monitoring of environmental targets in development aid cooperation also requires more work.

The protection and sustainable use of biological diversity has already been a long-standing component of certain cooperation projects in the forestry sector. In recent years, however, projects have been launched and prepared that primarily focus on preserving biological diversity in developing countries. Examples of this in official development cooperation include the protection of rainforests in the mountains of Tanzania, the development of forestry and forest protection in Laos, the forest project in Vietnam, the protection project for the Machu Picchu area in Peru, and regional cooperation to promote sustainable development in the forests of the Amazon. Support has been given to biological diversity research in the Peruvian Amazon as well as certain nature protection projects undertaken jointly by Finns and international non-governmental organizations. In 1997, new joint projects related to the Convention on Biological Diversity are being planned with Nicaragua and Peru. Development projects for environmental monitoring are being prepared with Mozambique, Namibia and Kyrghyzstan. These projects include monitoring of biological diversity.

Projects based on bilateral grants always aim to improve the capacity of the recipient and to involve the beneficiaries of the projects and the people affected by them in the planning, implementation and monitoring. Transparency is ensured in project planning and implementation. The equitable sharing of the benefit derived from genetic resources is given special consideration when allocating funds for potential projects.

Finland provided about FIM 41 million per annum in funding for GEF projects in the three-year period 1994-1996 (total FIM 124 million).

The biological diversity projects of the Ministry for Foreign Affairs were listed for the first time in 1995.

118. Finland will strive, in the selection, planning and implementation of development cooperation projects, to improve capacity-building in the developing countries to fulfil the obligations of the Convention on Biological Diversity as regards research, monitoring, administration and the conservation and sustainable use of biological diversity.

119. Technology transfer and access to information related to the conservation and sustainable use of biodiversity in the developing countries will be increased in the context of development cooperation.

120. Training and education will be increased so as to improve the capacity of Finnish biodiversity experts to work in the developing countries and to participate as partners in international biodiversity projects implemented in developing countries.

121. The impact on biodiversity of development cooperation projects will be assessed by including biodiversity assessment in the selection, planning, implementation and result evaluation of development cooperation projects.

122. The implementation of biodiversity projects will be monitored and the quality of development cooperation will be improved, for instance through EIA procedure.

FRANCE

CHAPTER VII: OVERSEAS CO-OPERATION AND TRANSFER OF KNOWLEDGE

VII.1 BIOLOGICAL DIVERSITY IN FRANCE'S OVERSEAS CO-OPERATION

Biodiversity conservation and restoration in France are part of a wider concern to contribute to maintaining global biological diversity, to work together with other countries, to co-operate on technical issues and exchange knowledge with Southern hemisphere countries, particularly French-speaking ones.

Today, France integrates the environment and biodiversity conservation in her overseas development aid programmes. France has set up a French Global Environment Facility (*Fonds français pour l'environnement mondial* or FFEM). The proportion of funding under this instrument allocated to biodiversity conservation is steadily increasing for projects on wetlands, coastal zones, tropical forests, steppes, dry forests, protection of threatened species etc.

France conducts an active policy on overseas co-operation in the field of management and conservation of water and aquatic ecosystem resources i.e. types of environment that are particularly suitable for biodiversity in all regions of the world, especially in tropical regions. In this field, France was one of the founding countries of the International Coral Reef Initiative (ICRI) set up for protection and management of this natural environment.

Lastly, through its public research institutes particularly the International Centre for Co-operation on Agronomic: Research for Overseas Development (CIRAD) and French Institute for Scientific Research in Overseas Development and Co-operation (ORSTOM), France provides international assistance (overseas development aid) aimed at conserving and managing biological diversity in developing countries (development of agriculture, sustainable management of forests, conservation of wild fauna and flora and genetic resources, protection of soils and water resources).

Transferring knowledge increasingly tends to occur with new actors, whose skills are internationally recognized becoming involved in the French system of overseas co-operation. These skills need to be formalised in terms of co-operation tools.

In this specific field, the following bodies are concerned the National Coast and Lakeshore Conservation Agency (CELRL), the national parks, regional nature parks, the National Forestry Office (ONF), the Water Agencies, the French Institute for Environment (IFEN), the French Agency for Environment and Energy Management (ADEME). A framework agreement is currently being drawn up between the Secretary of State for Overseas Co-operation and the Ministry of Spatial Planning and Environment. Some experience has already been acquired or is being developed e.g. twinning parks (France-Ivory Coast, France-Senegal - cf. study undertaken by the French Committee to the IUCN/International Agency for French-speaking Countries or ACCT), ONF's operations in the Ivory Coast, CELRL's operations in Tunisia, the Indian Ocean and the Ivory Coast.

This chapter illustrates French overseas co-operation aimed at conserving biological diversity. Three strands of French overseas co-operation activities are presented in details:

- a financial tool for the conservation of biodiversity the French Global Environment Facility (FFEM);
- a technical area in which France provides assistance the protection and management of the aquatic environment;
- French research on biological diversity conducted by two of the countries main public research institutes (CIRAD and ORSTOM) for the purpose of co-operation with developing countries.

The French Committee to IUCN and its overseas co-operation activities

The French Committee to IUCN (World Conservation Union) was established in November 1992. This body is one of IUCN's 40 national committees and the fourth largest in terms of the number of members.

It currently has 45 members that come from NGOs, public institutions (the National Natural History Museum, the National Forestry Office, the National Coast and Lakeshore Conservation Agency, etc.) and Ministries (Foreign Affairs, Overseas Co-operation and Environment). It is also made up of some 150 experts who are members of the various committees depending on their skills (species survival, national parks and protected areas, environmental strategies and planning, environmental law and legislation, education and information) and in theme-based working groups (Mediterranean, mountains, overseas *départments* and territories, forests, etc.) set up by the Committee.

In the five years since it has been set up, the French Committee has defined its operating rules and become structured on a permanent basis it has also begun its first strategic discussions and devising action programmes in conjunction with IUCN-International. The committees and working groups have produced studies and research work on sensitive regional ecosystems (Mediterranean, mountains, forests and especially tropical forests).

The French Committee to IUCN has particularly become involved in operations for overseas co-operation with and transferring knowledge to a certain number of regions. Under the statutes of the association, priority is given to French-speaking countries. The operations have been conducted in the following areas:

- organising conferences (helping the French-speaking Parties to the CITES Convention prepare for conferences, round tables, etc.);
- organising training sessions;
- conducting studies, in particular, on protected areas (Gabon, Guinea, Mauritania, Niger, twinning protected areas in France with French-speaking Africa);
- drawing up partnership agreements (French Committee to IUCN, CMS Bonn Convention);
- translating and adapting IUCN-International's publications into French.

Overseas co-operation activities undertaken by the French MAB Committee in the area of biodiversity conservation

The French Man and Biosphere (MAB) Committee carries out various activities in overseas co-operation that contribute to implementing the Convention on Biological Diversity. These activities are aimed at (i) devising and developing methods and guides to be disseminated, (ii)

setting up co-operation between France and developing countries and specifically between managers of protected areas (iii) developing projects and (iv) improving training. The following activities are examples of this:

- developing a method to produce guides as a tool to help manage MAB reserves and applying this method in developing countries;
- co-operation between the Man and Biosphere reserve of the Northern Vosges and that of Berezinsky (Belarus);
- drawing up an EC development project for conservation of the Mata Atlantica in the region of Iguape Jureia (Brazil);
- co-operation between the Man and Biosphere reserve of the Iroise (Brittany) and that of the Bijagos archipelago (Guinea-Bissau);
- organising an international seminar to discuss the future of protected areas in association with the French Committee to IUCN;
- initiating biennial meetings of Man and Biosphere site managers at European and North American levels;
- supporting the wetlands network.

The French MAB Committee grants its label to various research operations for overseas co-operation on restoring damaged sites and on establishing systems for sustainable use of natural resources, particularly in the Sahelian region.

VII.2 THE FRENCH GLOBAL ENVIRONMENT FACILITY

Alongside the multilateral Global Environment Facility (GEF), France has established the French Global Environment Facility *(Fonds français pour l'environnement mondial* or FFEM). The latter's purpose is similar to that of the GEF but it is implemented on a bilateral basis. The amount of funding earmarked for the period 1994-1997 is FF 440 million (US$75 million). 40 % of this sum is taken up by "biodiversity" projects. FFEM's resources, as those of the GEF, are additional resources to those allocated through the budget via French overseas development aid. The general criteria for a project to qualify for funding by the FFEM are identical to those adopted for the GEF.

With the support of this new tool, France is making great efforts to fund exemplary projects that are part of wider sustainable development programmes. The emphasis is placed on strengthening national capacities and the process of learning new techniques and technologies plays a major role in this.

Criteria for selecting projects on biodiversity

Projects submitted for funding by the FFEM must:

- meet the general criteria and be in line with the priorities under international conventions (ozone, climate change and biodiversity) and also meet the conditions for funding by the GEF;
- primarily be part of development projects in order to ensure more effective integration of global environmental issues within the sectors of development.

Funding through the FFEM should act as a lever and have the effect of internationalizing the integration of biodiversity into overseas development projects. It must ultimately be capable of bringing about changes in development strategies in the countries concerned. The projects must focus on areas with major environmental characteristics in terms of biodiversity and/or areas under threat.

Broad types of operations funded by the FFEM

Three broad categories of operations may benefit from funding from the FFEM regarding biodiversity:

- operations with direct effects on the conservation of biodiversity and management of protected areas funding mechanisms, integrated conservation and development projects, management of natural resources involving local communities, surveys, rapid assessments, environmental impact assessments and defining biodiversity indicators, training management staff;
- operations having an effect on direct or indirect factors these operations must help to identify and bring about the technical, economic, social and sociological conditions of sustainable management of the natural environment by influencing policies and practices;
- operations encouraging adding sustainable economic value to biodiversity.

Projects funded through the FFEM (at June 1 1997)

By late May 1997, FFEM's Steering Committee had accepted 22 proposals for projects on biodiversity, 16 of which had already resulted in project assessment reports being compiled and in funding agreements being signed. The geographical distribution of funding is as follows Africa (54%), Asia/Pacific (9%), Mediterranean (9%), Latin America/Caribbean (23%), Eastern Europe (5%).

The types of ecosystems covered by the funding are wetlands (14%), coastal zones (18%), wet tropical forests (36%), steppes/dry forests (32%).

Research work and studies are incorporated in components of the projects and the objective must always be to support and guide an operational component. The distribution of funding for the projects submitted is as follows research/study (25%), training/capacity building (35%), investment (40%).

VII.3 OVERSEAS CO-OPERATION REGARDING THE AQUATIC ENVIRONMENT

Faced with the expected rise in demand for water in the coming years, particularly in developing countries, France is applying its experience and skills to the protection of water resources, the aquatic environment and population needs. This is based on a highly active policy that France is pursuing at home on the protection of the aquatic environment and water resource management.

Priority areas for aquatic resource management

France wishes to promote an international action programme on freshwater, combining three major thrusts: applying recognized principles of water resource management at international level, developing decentralized co-operation and strengthening or extending existing legal instruments following the UN/ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes. Similarly, France actively implements the Conventions on environmental protection in regional seas (e.g. the Mediterranean).

France supports water resource management by major river basins and she actively participates in the international commissions for the protection of rivers and lakes, the responsibility of which

she shares with neighbouring countries (Rhine, Moselle, Lake Geneva, etc.), including the conservation of biodiversity resources.

Sector-based technical co-operation to help set up Water Agencies

Alongside the traditional subjects of technical co-operation in water matters (resource use and management, pollution control, hydraulics in agriculture), France provides assistance to set up Water Agencies (i.e. public agencies for water management established at the level of the major river basins). With France's support, several countries have initiated action in this field, particularly Indonesia, Brazil and Poland. The latter country wished to benefit from France's experience acquired in this field and is in the process of setting up several water agencies. Through global management of water resources and the aquatic environment and funding operations specifically at river basin level, the approach advocated by the Water Agencies contributes to conserving biological diversity, especially in the aquatic environment.

Management of the major river basins and rivers

France has acquired sound experience and practices in this field that she can pass on to developing countries a unique institutional model in which the responsibilities are shared between the State, local authorities and private groups (the Water Agencies, the private companies that distribute drinking water and treat waste water and companies that carry out planning, development and management of waterways), international economic actors, experienced consultancies, research institutes (CEMAGREF, ORSTOM, CIRAD, INRA, etc.) training institutes, involvement in international research activities (IIMI, IPTRID, IBSRAM). In addition, France has set up a body to bring together French skills in water matters within the International Water Office *(Office international de* or OIE).

The International Water Office: a major player in overseas co-operation

The International Water Office (OIE) was set up on January 24 1991 on the initiative of the Ministries of Environment, Agriculture, Foreign Affairs, Overseas Co-operation, Industry and Health. The OIE has six main tasks:

- to disseminate general, specialized and institutional information on all the areas concerning water;
- to manage data bases that enable the quality of the aquatic environment and water resources to be monitored;
- to organise study programmes, assessments and evaluations;
- to provide access to scientific, technical, economic and institutional documents;
- to provide training for professions in the area of water.

VII.4 BIOLOGICAL DIVERSITY IN PUBLIC RESEARCH FOR OVERSEAS DEVELOPMENT AID

France encourages the integration of the environment and biological diversity in her overseas co-operation programmes. France also ensures that biodiversity conservation is an integral part of research for development of the countries with which she co-operates. This is particularly the case through the work undertaken by the country's public research institutes CIRAD and ORSTOM.

The International Centre for Co-operation on Agronomic Research for Overseas Development (Centre *de cooperation internationale en recherche agronomique pour le développement* or CIRAD).

CIRAD is a public scientific body specialized in agriculture in the tropical and subtropical regions. It was established in 1984 following a merger of a number of research institutes specializing in agronomical, veterinary, forest and agri-food sciences in the tropical regions.

CIRAD's task is to contribute to the development of these regions by undertaking research, experiments and providing training and scientific and technical information. It conducts its work in its own research centres within national agronomic research institutes of partner countries or by supporting overseas development through co-operation activities. It employs 1 800 staff (including 900 executives) who are stationed in some 50 countries.

Within CIRAD, biodiversity is incorporated in the objectives summarised by the terms "sustainability" and "double green revolution". In addition to the objectives of fighting against poverty and food shortages, today there is an environmental perspective to maintain the potential of the environment and biodiversity for future generations.

CIRAD is actively involved in devising and setting up several major "ecoregional" projects in Africa and Asia, drawing on partnerships with the different types of economic operators and by joining forces with experts from national research bodies of the partner countries, other scientific institutions from the Northern hemisphere and certain centres of the international agronomic research system.

With regard to biodiversity, CIRAD mainly undertakes action in the following fields site restoration, site conservation, interaction between biodiversity and farming activities, socio-cultural practices, socio-economic research, genetic diversity and genetic resources management.

French Institute for Scientific Research in Overseas Development and Co-operation *(Institut français de recherché scientifique pour le développement en coop&ration* or ORSTOM)

ORSTOM is a public scientific and technological body under the authority of the Ministries of Research and Overseas Co-operation. It has a staff of 2 500 including 600 from Southern hemisphere countries and has 54 delegations in France, in her overseas *départements* and territories as well as in developing countries.

One of ORSTOM's major tasks is to promote and carry out any research work that may contribute to the economic, social and cultural progress of developing countries by studying the physical, biological and human environments of these countries through action undertaken on a partnership basis. It helps to build the scientific capacities of Southern hemisphere countries, provides training for research and for specific operations.

The dimension of biodiversity is taken into account in the following ORSTOM research stations:

- dynamics and uses of water resources and the tropical aquatic environment,
- dynamics and uses of the tropical terrestrial environment,
- dynamics and uses of marine and coastal ecosystems and their resources,
- the biological bases for enhancing biodiversity in agriculture and the agri-food business.

At a more detailed level of the research programmes, biodiversity is taken into account in the following aspects acquiring knowledge about tropical biodiversity, sustainable management of species and resources and genetic resources.

French research undertaken on biological diversity in coral reefs

France was one of the countries to set up the International Coral Reef Initiative (ICRI). France is particularly active in the fields of acquiring knowledge on, managing and protecting resources in the coral reefs. Through her overseas *départements* and territories (DOM-TOMs), France is present in three of the major regions or regional seas concerned the Caribbean, the Indian Ocean and the Pacific Ocean.

France has set up a National Coral Reef Research Programme *(Programme national de recherché sur les récifs coralliens* or PNRCO) that currently focuses on three themes:

- past and present carbonates,
- how the reef and lagoon ecosystem functions,
- reef oceanography.

Several research institutes are involved in this programme universities in the DOM-TOMs, ORSTOM, the National Natural History Museum (MNHN), School for Advanced Studies (EPHE), the National Centre for Scientific Research (CNRS). The research conducted on biological diversity in the coral reefs is as follows

- flora and fauna surveys,
- species diversity,
- habitat and landscape diversity,
- origins and conservation of biodiversity,
- impacts of introduced species.

GERMANY

5.9 Measures to implement the Convention on Biological Diversity through international cooperation

5.9.1 Development cooperation

5.9.1.1 Bilateral cooperation

The Convention on Biological Diversity has a major influence on the design of bilateral financial and technical cooperation projects in the fields of nature conservation, forestry, agriculture and fisheries. Through its financial and technical cooperation, the Federal Government supports some 150 projects in which conservation and sustainable use is either the main focus or at least one of the major components. Between around DM 150 and 200 million has been provided for these projects.

Nature conservation

Since as long ago as the mid-1980s, nature conservation projects undertaken as part of German development cooperation have increasingly focused on the care of natural areas and preservation of biodiversity. The intention is to support the developing countries in their efforts to preserve

their natural resources and use them in a sustainable way, taking into account their ecological, socio-cultural and economic significance and also respecting traditional and semi-natural methods. As well as the designation of conservation areas, an important component has, from the outset, always been the sustainable management of biological resources, particularly in the buffer zones surrounding conservation areas, with the participation of the local population. The promotion of ecotourism or the extraction of basic pharmaceutical substances are just two examples of how this can be achieved.

The following measures and activities are commonly supported in our partner countries:

- development and promotion of nature conservation strategies and instruments:

– involvement in the formulation of national nature conservation strategies,
– improvements in legislation and regulations,

- establishment of effective institutions and organisations in the field of nature conservation:

– basic and further training in nature conservation issues,
– establishment of efficient nature and wildlife conservation structures,
– equipping of nature conservation authorities,

- promotion of the status of nature conservation within society:

– intensified education and public relations,
– development of incentives for environmentally sound behaviour,
– development and consolidation of conflict resolution mechanisms,

- management of conservation areas:

– identifying and designating conservation areas and buffer zones,
– implementing management plans in conservation areas and buffer zones,
– programmes for species protection and habitat management,
– establishing networks of natural areas.

Project example: game management in the Selous Reserve in Tanzania

Covering a total area of 50,000 km², the Selous National Park in the southeast of Tanzania is Africa's largest nature conservation area and represents one of the last great expanses of African wilder-ness.
Its ecological resources have still hardly been touched by human interference: 75% of the Park's area is covered by miombo forests. Within the Reserve's boundaries there are several river systems with wetland areas, gallery forests and open grass steppe. UNESCO has designated the region a World Natural Heritage Site. However, agriculture and growing demographic pressures are becoming an increasing threat to the future of the Reserve. The worst damage has been caused by commercial poaching and illegal logging. The authorities have not yet succeeded in practising effective nature conservation management.

The abundance of wildlife in Tanzania remains the foundation of a flourishing tourist industry, which is the country's major source of foreign exchange. The losers in the tourism-led economic boom have, however, been the communities living around the margins of the Reserve. For they are not reaping the benefits of tourism, yet have to cope with constant damage to their farms caused by wild animals.

The project is designed to enable the villagers to benefit from the abundance of wildlife in their local areas. The aim is, on the one hand, to allow regulated hunting that will provide the inhabitants with game for their own meat requirements and, on the other, to minimise the impact on the natural populations. Wildlife committees, set up to represent local farmers, are currently

permitted to bag 480 meat animals per year and gamewardens keep watch to ensure that the quota is observed and no protected species are shot. Since the introduction of this system, poaching has declined considerably. Although controlled hunting is even permitted for elephants, their population has expanded from 30,000 to 52,000 thanks to the almost complete cessation in the poaching of this animal.

Project measures also include the promotion of limited game tourism and of eco-tourism, improvements to the infrastructure in the park and institutional capacity-building of the park administration. Self-help schemes are being promoted for the communities in the peripheral zones and the revenues from the park are to be increased to a level that will permit economically and ecologically sustainable development.

The project began in 1988 and is currently due to run until the end of 1998. The financial support provided amounts to DM 14.5 million, of which DM 4.3 million covers the present promotion phase (1995-98) and DM 2 million is for setting a telecommunications system.

[Contribution by the Federal Ministry for Economic Cooperation and Development *(Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung*)]

Forestry and forest conservation

The preservation and management of forest resources will only have a realistic chance of success if it is adapted to the economic, social and other concerns of those living in or around forest areas and if it becomes an integral part of a national development policy that is sustainable and makes sparing use of natural resources. This is why it is so important to use development co-operation to support the partner countries in improving both their forestry policies and planning programmes and the relevant framework conditions. Efforts to solve disputes over the use of tropical forests by means of consensus-oriented forest strategies are therefore also important, as is the equitable sharing of the benefits and burdens of tropical forest and forest management programmes.

In forestry-related cooperation, multi-sectoral projects are increasingly being carried out with the aim of improving the use of land and resources at regional and local level, increasing the involvement of target groups and facilitating the necessary adjustment of the forestry policy and institutional framework. These projects attempt to combine measures to protect valuable forest areas with controlled use of forest stands in accordance with the principles of sustainable forest management.

In order to ensure that there is a consistent policy on the conservation of the tropical forest, to make project management by the national executing agencies easier and to improve coordination with projects funded by other donors, tropical forest projects are brought together in National Forest Programmes or comprehensive programmes supported by several donors. The largest integrated tropical forest programme funded by the German government is the "International Pilot Programme for the Protection of the Tropical Rainforests in Brazil"/PPG7. This programme is intended to serve as a model. The strategies developed here should, wherever possible and appropriate, be applied in other areas and regions. The following project example is one component of PPG7.

Project example: safeguarding forest protection zones in Brazil

In terms of global climate and biological diversity on Earth, the most important contiguous region of tropical forest in the world is in Amazonia. Changes in land use in the Amazon region have accelerated dramatically since 1980. The designation of protected forest and vegetation zones and their amalgamation in a national system of protected areas of various categories is one of Brazil's strategies for safeguarding its natural heritage within the scope of the national environment programme.

The federal government and individual states have in the past designated as many as 328 protected areas, comprising a total area of about 25 million hectares. Yet this has not achieved the objective of ensuring that areas of unique biological and ecological diversity remain untouched, either at federal or at state level.

Within the framework of bilateral financial co-operation, which is handled by the German Development Bank, the *Kreditanstalt für Wiederaufbau* (KfW), Germany contributes a total sum of DM 30 million to the protection of species diversity, climate, water quality and soil fertility in the Amazon region. The project also includes technical cooperation measures, which are carried out by the German Agency for Technical Cooperation, the *Deutsche Gesellschaft für technische Zusammenarbeit* (GTZ) and received funding of DM 3.5 million in total.

The aim of the project is to provide permanent safeguards for seriously threatened protected areas and to consolidate the Brazilian protection system SINUC. By meeting the costs of equipment and transport, financing communication systems and covering operating expenses, the project secures the existence of 31 forest protection zones (national parks, biological and ecological reserves). The project forms part of the comprehensive national environment programme, the PNMA, which covers not only the aspect of protected areas but also extensive capacity-building measures to strengthen the national environment authority *Instituto Brasilieiro do Meio Ambiente e dos Recursos Renovaveis* (IBAMA) and environment authorities in the individual states. PNMA also includes measures to preserve specific ecosystems in the Mata Atlántica coastal region and the Pantanal wetland area. To achieve this goal, it is intended to streamline planning documents in selected protected areas and establish co-management between the IBAMA and appropriate non-governmental organisations. A monitoring system is being organized to ensure continuous supervision of measures being implemented. The project will result in the improved management of resources by consolidating Brazil's protected areas system, securing it on a long-term basis and building the capacity of national institutions.

[Contribution by the Federal Ministry for Economic Cooperation and Development]

The strategy of promoting the tropical forest pursued in the development cooperation sector is being further developed on the basis of experience gained from current projects, using project evaluations, research contracts and strategy analyses. By means of expert discussions and regular consultations, it is possible to benefit from the knowledge of other donors and non-governmental organisations.

Since 1988, the German government has trebled the funds available for forest-related projects in development cooperation. With an annual DM 250 - 300 million earmarked for this purpose and the contributions made as part of European and multilateral commitments, Germany is one of the world's largest financial donors in this sector.

Agriculture

The aim of sustainable agricultural development, as promoted by means of bilateral cooperation, is to establish a form of agriculture that is sound in ecological, socio-cultural and economic terms and that makes sparing use of the natural resources of soil, water and biodiversity so that they remain intact for future generations. In general, all measures implemented in the name of ecologically sustainable agricultural development, such as the use of integrated plant protection methods or reductions in soil degradation, contribute to the conservation of biodiversity.

However, through measures aimed at establishing sustainable agricultural practices, the partner countries are given specific assistance regarding the conservation and sustainable utilisation of the biodiversity of useful plants and domestic animals, of the micro-organisms necessary for maintaining the fertility of the soil and of the useful organisms that can be used in biological pest control.

The first measures for the conservation of endangered genetic resources were implemented as early as the beginning of the 1970s. These were largely limited to support for national gene banks (e.g. Ethiopia, Costa Rica, Kenya, Bangladesh, Morocco, Sierra Leone) and the *ex-situ* conservation of resources and establishment of live collections. These were complemented by measures enabling comprehensive quality analyses to be conducted, thus allowing the genetic material to be more effectively used for breeding and research purposes.

Precedence is now given to the conservation of local varieties and animal breeds in their natural environment *(in situ)* and of the associated knowledge, as well as the use of these varieties and strains for breeding purposes.

Measures aimed at the conservation and use of biodiversity are either carried out as specific projects or are integrated into wider projects or programmes, e.g. the promoting of farming and household systems, integrated plant protection, rural regional development, the development of the seed sector, the promotion of pasture farming, livestock farming, fishery, agroforestry and agricultural research. The main aim of these measures is to support the rural population in both preserving and benefiting from its resources. The partner countries are supported *inter alia* in the following activities:

- developing national and regional strategies and plans of action,
- building or consolidating suitable local, national and regional capacities and structures,
- creating access to technologies, particularly biotechnology, that lead to the improvement or enhanced efficiency conservation and use techniques,
- advising on technical, economic, legal and biosafety matters, e.g. *in-situ* conservation, means of improving and capitalising on local plant and animal resources, biological plant protection, the application of new technologies (e.g. biotechnology) and the improvement of traditional technologies,
- providing basic and advanced training,
- facilitating supraregional cooperation through net-works.

Project example: promotion of seed production in the informal sector, Zimbabwe

In close cooperation with locally active NGOs and farmers' organisations, the project is assisting the conservation and use of traditional local varieties and new breeds and promoting on-farm seed production. The aim is to develop ways of improving the availability of appropriate seed stock by means of community and village-level production. It is also intended to establish a greater number of seed varieties and to promote the exchange and sale of seeds as an additional source of income.

This project in southern Africa was initiated in response to the significant shortages experienced in the supply of open-pollinating varieties despite the presence of a very well organised seed industry, and the increasing disappearance of traditional local varieties, which is drought-related. Priority had to be given to promoting the informal on-farm seed production sector to secure the supply of seed stock to farming households.

The results achieved so far include:

- great interest and enthusiasm on the part of farmers in addressing all aspects of seed supply,
- a growing awareness among farmers that local varieties are part of their culture and worth "saving",
- that it only makes sense to improve the production of seed stock and the *in-situ* conservation of local breeds in connection with efforts to promote other improvements in such areas as cropping techniques, soil fertility and the use of small implements,
- that the farmers are very good at engaging in the necessary dialogue with the researchers (breeders) and that the latter are for their part also keen and willing to take on board the farmers' ideas,
- that it has not been uncommon for farmers visiting the research centres to be surprised to find this or that old local varieties they thought had disappeared and then to ask for seed to start growing them again.

So far, the project has clearly shown that the on-farm seed industry can only be promoted in close cooperation with, and complementary to, the formal seed production sector. Progress here must be based on mutual acceptance among NGOs, farmers' organisations, the representatives of the formal seed industry, the private sector and the research community. Policy and legislation on seed must permit the exchange and sale of seed stock in the informal sector and thus open the way to on-farm seed production that will, through the production of mixed cultures, receive some economic incentives for *in-situ*/on-farm conservation of local varieties. The project has taken on the role of a mediator within this complex web of relationships and circumstances. In the course of the next phase, the project is now to be extended to operate in other SADC countries.

[Contribution by the Federal Ministry for Economic Cooperation and Development]

Fisheries and aquatic resources

The aim of development policy cooperation in the fisheries sector is to maintain and improve food supplies, to generate and safeguard a source of income for the poorer sections of the population and to maintain coastal biodiversity and aquatic resources. As part of this strategy, the following projects are supported in the partner countries:

- conservation, rehabilitation and sustainable utilization of the aquatic resources of the sea and inland waters,
- catching and processing techniques that conserve resources, and promotion of marketing,
- integration of aquaculture in farming systems in inland areas and on the coast,
- advice on issues of policy and management; establishment of an infrastructure to facilitate the efficient control and monitoring of resource utilization (including research into marine ecosystems and biological surveys),
- development of concepts for the sustainable use of mangrove swamps for fishery and aquaculture purposes,

- promotion of appropriate technologies in fisheries and aquaculture.

In projects in this sector, particular account is taken of knowledge on the ecological significance of a resource and its immediate relation to other resources. Thus it may be decided that a particular resource is not to be used, for example in order to conserve fish stocks and their biodiversity and, therefore, the associated potential for genetic regeneration.

Project example: lagoon fisheries in Benin

Covering an area of over 300 km², the lagoon system in the south of Benin is one of the largest in the Gulf of Guinea. The project area comprises the three départements of Mono, Atlantique and Ouémé. Around 4,000 people here earn a living from fishing, fish processing and the fish trade.

Most of the once dense mangrove forests were cut down for firewood in just a few years. This caused a rapid depletion in species diversity and a decline in fishing yields. Not only are mangrove forests one of the most species-rich biotopes on Earth, they also serve as vital spawning and maturation grounds for many fish species, which stay in the waters of mangroves in the juvenile stages of development before moving out to sea.

The mission pursued by the project, which has been in operation since 1986, is to restore the ecological balance of the lagoons and introduce ecologically compatible management systems designed to ensure a long-term sustainable basis for the livelihoods of the fishermen, mussel gatherers and other people who live from the lagoons.

Cooperating closely with the target group, the project arranged for more than two million mangrove seedlings to be planted over a period of several years, with the result that today large areas of the lagoons are again covered with mangroves of up to five metres in height.

In particular, any changes in fish stocks have been monitored and documented in the course of the project. This work has clearly shown that there is a direct correlation between the increase in mangrove cover and the recovery of the fish population. It may also be assumed that this is an indicator for a general return to greater biodiversity.

Since the inhabitants of the lagoons have for the most part taken charge of planting the mangroves and overseeing the new growth, it may be assumed that the success of these measures will be sustained in the future.

[Contribution by Federal Ministry for Economic Cooperation and Development]

Supraregional project for the implementation of the Convention on Biological Diversity

To accelerate implementation in the developing countries of those measures contained in the Convention that are binding under international law, a special sector project, entitled "Implementation of the Convention on Biological Diversity" was established under the auspices of the *Gesellschaft für technische Zusammenarbeit* (GTZ), with DM 8.5 million in technical cooperation funding provided thus far. This sector project provides a framework for individual measures aimed at improving conditions for the implementation of the Biodiversity Convention in certain contracting states. The intention is to enable selected institutions in developing countries to implement the key aspects of the Convention. The project is adapted to conditions in each particular country. Efforts may be directed both towards building the capacities of the

institutions concerned during the entire process of compiling inventories and designing national biodiversity strategies, and also towards promoting individual components of the Convention (clearing house mechanism, in-situ and ex-situ measures, access to genetic resources). Thus, support has, to date, not only been directed at producing studies to record the extent and possible uses of biodiversity but also at developing national nature conservation strategies and at capacity-building in the developing countries themselves to facilitate implementation of nature conservation projects.

Research

In order to further develop its policies on protection of the environment and natural resources, the Federal Government promotes practice-oriented research in support of projects as part of its development cooperation efforts. The intention is to remedy gaps in our knowledge on the interplay of factors in tropical ecosystems and to improve project planning.

There is still a great need for research into tropical forest ecosystems (Fourth Federal Government Tropical Forests Report, 1995). As part of a further, supraregional project entitled "Promotion of Tropical Forest Research", the Federal Ministry for Economic Cooperation and Development (BMZ) provides financing for the following areas:

- support from forestry scientists for natural forest management and afforestation measures,
- amassing of traditional knowledge on the forest,
- identification, development and marketing of new forest products.

The project concentrates on the regions of South America and South-East Asia.

The Federal Research Ministry (BMBF) and the BMZ have agreed to coordinate measures in the area of applied tropical forest research. Both programmes focus on Brazil (the Amazon region, the tropical coastal forests (Mata Atlántica) and the large expanse of wetlands in Pantanal). In the SHIFT research programme, "Studies of anthropogenic influences on forest systems and flood regions in the tropics", for example, efforts are being intensified to investigate options for long-term, non-shifting agricultural use of tropical forest regions, parts of which have already been cleared and settled. The knowledge gained from these projects can be useful in ensuring that areas already being used are not degraded and exhausted after only two or three years, following which they are abandoned and new areas rapidly cleared to provide fresh agricultural land. Instead, the intention is to maintain these areas as productive land for many years, thus offering the people a livelihood.

The simulation model ÖKO-GEN (cf. Chapter 5.8.2), which was developed by the Federal Research Institute for Forestry and Timber Industry Studies *(Bundesfor-schungsanstalt für Forst- und Holzwirtschaft;* BFH) and successfully applied in moderate climes, is to be adapted in cooperation with the Brazilian partners to conditions in the tropics. Simulation studies should help to provide information on genetically sustainable management of the eastern Amazonia and on the conservation of the genetic diversity of keystone species.

Since 1997, the BMBF has been jointly funding the cooperative project WAVES (Water Availability and the Vulnerability of Ecosystems and Society) together with the Republic of Brazil. WAVES is investigating the relationships between climate changes, water shortages and human migration from the hinterland to the coastal areas of three regions of north-eastern Brazil. It is hoped that the research project will provide a comprehensive analysis of the interactions between climate, geosphere, hydrosphere, biosphere and anthrop-phere, while also indicating

ways of achieving a sustainable improvement in living conditions and developing strategies and recommendations for action to protect semi-arid areas from the negative impacts on possible climate change.

The Supporting Programme for Tropical Ecology run by the GTZ is designed *inter alia* to initiate project-supporting environmental research and to make greater use of tropical ecology know-how in the form of flexible support for development cooperation in environmental issues. Not only German scientists but above all students and young scientists in the developing countries are involved in the programme. Applied research should be given priority. Currently the programme is concentrating on the following areas:

- ecology and plant protection,
- soil fertility and biological indicators,
- ecological economy
- ecology of tropical forest systems,
- biodiversity.

Development cooperation funds are also used to provide institutional support to the Centre for International Forestry Research (CIFOR) in Bogor, Indonesia, which concentrates its research on the conservation and improvement of the forests' genetic resources, the development of natural forests and the ecologically sustainable management of forests.

The Federal Government supports research in the field of agroforestry by promoting the International Centre for Research in Agro Forestry (ICRAF) in Kenya. The ICRAF's work programme and mandate involve compiling inventories of existing agroforestry systems, analysing them and using applied research to develop them further.

The conservation and sustainable use of biodiversity is an increasingly important factor in the support accorded national and regional institutes for agricultural research and development (for example the IICA, CATIE/Cost Rica, ICIMOD/Nepal), regional research networks and national research programmes.

Technology transfer as part of development cooperation

A major commitment contained in the Convention on Biological Diversity concerns facilitating the transfer of technology. German development cooperation also contributes to technological cooperation in a wide variety of ways. In its projects, it supports the transfer of scientific and technical knowledge, provides advice in organisational and management matters and supplies equipment. Technologies can be deployed all the more effectively given conducive economic conditions and the right kind of political and institutional framework in the partner countries. Developing countries can also use the technologies available all the more efficiently and effectively given high technological skills. That is why capacity-building in the developing countries is of such vital importance in cooperation and technology transfer.

Bilateral projects also facilitate cooperation in the field of biotechnology. Bilateral programmes aimed at the practical implementation of sufficiently developed technologies have been made a funding policy priority by the BMZ. The measures supported range from traditional biotechnologies to the application of modern cellular and molecular biology techniques for diagnostic purposes and *in-vitro* techniques. One special sectoral project is concerned with developing the basic organizational and legislative framework for applying biotechnological techniques in plant production. Taking into account local ecological, economic and social

conditions, the aim is to identify examples of suitable mechanisms for transferring biotechnological techniques and products and also to develop structures that will enable the consequences of the application of new techniques to be predicted.

Environmental impact assessment

One major aspect taken into account when undertaking development cooperation in the area of environment and natural resource protection is the environmental impact of projects. The aim of the assessments, introduced in 1988, is to ensure that, for example, development projects undertaken in forest areas that are not directly linked to forestry, such as road construction, power generation and supply or the exploitation of mineral resources, do not lead to irresponsible destruction of forest areas, losses in biodiversity or any other kind of degradation. Over the last few years, development cooperation efforts have also increasingly focused on supporting the establishment and operation of national environmental institutions in order to enable the partner countries to carry out environmental impact assessments of their own measures as well.

5.9.1.2 Multilateral cooperation

Global Environment Facility (GEF)

In the Convention on Biological Diversity, the industrialized countries entered into a commitment to provide financial support to enable the developing countries to carry out measures required for the implementation of the Convention's provisions. A financing mechanism was established for this purpose and the "Global Environment Facility" entrusted – for the moment on a provisional basis - with its administration. This multilateral fund, jointly managed by the World Bank, UNDP and UNEP, was set up in 1991. Financing is available to developing countries, the countries of Central and Eastern Europe and the CIS. The GEF gives grants for investments and technical consultancy in the areas of climate protection, conservation of biological diversity, protection of international waters and protection of the ozone layer. Grants are provided solely to cover incremental costs incurred through measures of global benefit. The GEF council bases its guidelines for the use of funds on the tasks defined in the Conventions and the programme priorities identified by the Conferences of the Parties to the Conventions. The fund was replenished by approximately US$ 2 billion for the 1995-97 period. Germany's contribution amounts to some DM 390 million or 12% of the total volume. So far, the GEF has provided around US$ 450 million in the "biodiversity" funding area.

In the negotiations on the third replenishment of the fund, the Federal Government is making every effort to ensure that the GEF has sufficient finances to perform its tasks.

Trust-fund cooperation with international organizations

Although trust-fund cooperation with international nature conservation organizations is just one small aspect of the Federal Government's involvement in the international implementation of the Convention on Biological Diversity, it nevertheless provides vital support in strengthening these institutions. These non-governmental organizations can play an important integrative role in international discussions and convention negotiations, since their experience and their findings are recognised and respected internationally, in both developing and industrialised countries and by both govern-mental and non-governmental players.

Since 1992, the BMZ has, through its trust-fund co-operation arrangements, supported projects carried out by the following environmental NGOs: World Wide Fund for Nature (WWF, Gland),

World Conservation Union (IUCN, Gland), World Resources Institute (WRI, Washington) and the International Institute for Environment and Development (IIED, London).

The Federal Government also provides funds in trust to enable UNESCO to promote supraregional tropical forest conservation and environmental education projects as part of its activities in the field of natural resources management.

Debt relief

At both bilateral and international level, the Federal Government is engaged in attempts to overcome the debt problems of the least developed countries. In addition to the Paris Club's bilaterally and internationally coordinated debt relief measures, to which Germany contributes, the Federal Government also grants debt relief in the form of debt swaps to those highly-indebted poor countries that have agreed with the IMF on an economic reform programme, if the funds released within the country concerned are invested in environmental protection. Between 1993 and 1995, funds of DM 240 million were authorized for use in waiving claims within the framework of such debt servicing arrangements. To date, the Federal Government has entered into agreements to this effect with Bolivia, Côte d'Ivoire, Congo, Ecuador, Honduras, Jordan, Peru, Vietnam, the Philippines, Nicaragua and Cameroon. The domestic counterpart funds have mainly been invested in tropical forest and nature conservation.

International Agricultural Research

Germany's contribution to the Consultative Group on International Agricultural Research (CGIAR) is managed by the BMZ and implemented by the *Gesellschaft für technische Zusammenarbeit* (GTZ) in a project entitled "Promotion of international agricultural research". Support is provided to 16 international agricultural research centres, either through targeted contributions to ongoing programmes or promotion of specific projects, such as CIFOR, ICRAF and IPGRI.

The project contributes to poverty alleviation, food security and the conservation of resources in developing countries. These objectives are to be achieved by means of the following measures:

- promotion of the centres research initiatives and programmes - involving, as far as possible German partners and experts from developing countries,
- strengthening the partner countries' own agricultural research establishments,
- improving cooperation between national, regional and international research institutions,
- mobilising the knowledge and experience of those German institutions that primarily conduct research into the tropics and sub-tropics in order to advise the Federal Government on scientific matters and also to facilitate more intensive cooperation with national research establishments in the developing countries,
- applying the innovations of international agricultural research in development cooperation.

Individual projects or programmes normally run for a period of three years. Germany provides total funding of around DM 35 million per year.

The conservation and utilisation of biodiversity is one of the CGIAR's most important programme areas and most of the centres promote activities in this field (among other things, over 500,000 different strains are kept).

Germany's support for the CGIAR also focuses on the areas of "Preserving biodiversity in agriculture" and "Using plant genetic resources"

5.9.2 Other international cooperation

International water protection commissions

In order to reduce pollution burdens on transboundary rivers, the countries bordering on these rivers cooperate with each other on the basis of multilateral agreements in various international water protection commissions. Such commissions exist for the Moselle, Saar, Danube, Oder, Elbe and Rhine, and for Lake Constance. The more recent conventions also contain, in varying degrees, provisions on nature conservation and recommendations on environmental impact assessments for planned projects.

Conservation and improvement of biological diversity on the Elbe

One of the central tasks of the International Commission for the Protection of the Elbe *(Internationale Kommission zum Schutz der Elb*e; IKSE), which was formed on 8 November 1990, is to establish, as far as possible, a semi-natural ecosystem with a healthy diversity of species in the catchment area of the river Elbe.

Compared with similar European rivers, many sections of the Elbe and its riverside meadows display largely semi-natural structural characteristics. They offer a unique habitat for a large number of animal and plant species threatened with extinction or decline.

This is underlined by the large number of protected areas that have been established along the Elbe. However, many sections have been severely impaired by various human interventions. Measures are needed here to restore semi-natural conditions.

The IKSE took a first step in this direction by adopting an emergency package of ecological measures in 1993 to protect and enhance the Elbe's biotope structures. So far the proposed measures have only been implemented in part. All other proposals for greater protection and enhancement of biotope structures in the Elbe and its riverside meadows ultimately depend on the creation of a continuous biotope network along the Elbe.

More ambitious measures and strategies to achieve this objective were set out in the Elbe Action Programme submitted for implementation to the Parties in 1996. The programme covers the period from 1996 to 2010 and, in its ecological section, provides in particular for schemes to improve the biotope structures and riverbank regions along with measures to ensure that fish can migrate freely. Ecological studies are gradually being completed for a whole number of important tributaries of the Elbe in Germany and the Czech Republic as a basis for the protection and development of aquatic structures and bank regions.

[Contribution by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety]

The "Salmon 2000" Progamme of the International Commission for the Protection of the Rhine against Pollution (ICPRP)

Salmon was for many centuries among the common and frequently used fish species in the Rhine, until it was pushed to extinction by human intervention in the Rhine system. Since 1993, the countries in the river's catchment area have carried out various water protection projects as part of the Rhine Action Programme, known as "Salmon 2000". These projects are implemented under the auspices of the ICPRP and with support from the EU. The aim is to facilitate the return of salmon and other migratory fish by the year 2000 by improving the ecosystem of the Rhine and its tributaries. This aim requires close cooperation between all the riparian countries along the Rhine and its tributaries (The Netherlands, Germany, Luxembourg, France and Switzerland).

Since the salmon have become completely extinct in the Rhine system, new stock has to be built up. This demands large-scale stocking measures over several decades. The sea trout, on the other hand, still survives in the Rhine system and its numbers are to be boosted on the basis of natural reproduction and captured spawners. In the case of salmon, the fish eggs are taken from various European wild stocks and raised to the juvenile stage in fish farms or incubators located in the river system itself before being released. It is hoped that broad genetic variety will allow new salmon populations to develop that are adapted to this habitat.

Further measures to implement the "Salmon 2000" Programme concern improvements to future breeding habitats for salmon and sea trout, the mapping and removal of obstacles to fish migration (for instance, by constructing fish bypass channels at weirs and dams). These steps are accompanied by progress reviews, inventories and auxiliary research projects. The Programme has already shown some success. In almost all the waters being stocked, there is evidence that salmon have reached maturity. In the river Sieg in North-Rhine/Westphalia, where stocking began as long ago as 1988, salmon began returning from the sea in 1990 and have been breeding naturally since 1994. The French caught the first new salmon in the Upper Rhine in 1995, thus demonstrating that the stocking measures undertaken in 1992 and 1993 in the Alsatian Rhine tributaries had succeeded.

[Contribution by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety]

Transboundary and international cooperation

The conservation of biological diversity requires cooperation that transcends national borders. Owing to Germany's federal structure, many areas of transboundary cooperation fall within the remit of the *Län-der* Many associations have developed their own initiatives in cooperation with partners beyond Germany's frontiers.

Transboundary cooperation between the Free State of Saxony and the Czech Republic and Poland

As long ago as 1991, the environment ministries of the Free State of Saxony and the Czech Republic reached an agreement on cooperation on matters of nature conservation in their mutual border region. This agreement, originally valid for five years, has since been extended. It establishes a framework for cooperation to be institutionalised in the form of a permanent working group composed of representatives of the nature conservation authorities on both sides. This working group performs various informal functions. Its crucial role, however, is to initiate and coordinate transboundary nature conservation and landscape management measures and projects in the border region of the two countries, including species protection measures, landscape management projects, protected area designation and biotope network planning. A

special agreement between the *Sächsische Schweiz* National Park authority and the agency administering the Czech landscape reserve of *Labske piskovce* (which is planned to become a National Park) facilitated the development of close and in-depth scientific and organisational cooperation covering the natural area of the *Elbsandsteingebirg*e.

Transboundary nature conservation cooperation with Poland is based on a 1994 treaty between the Federal Republic of Germany and the Republic of Poland on cooperation in the field of environmental protection. Collaboration mainly involves the *voivodeships* of Zielona Gora and Jelenia Gora, whose representatives come together in a working group with those of the Saxony State Ministry for the Environment and *Land* Development. The *voivodeships* are also involved to some extent in a WWF project taking place in the border region.

There are currently two individual projects that entail transboundary cooperation:

- the *Zweckverband Naturschutzregion Neiss*e, an agency dedicated to nature conservation in the border region of the river Neisse, is performing a project on "Conservation and development of the *Lausitz-Niederschlesischen* pine heaths" (in Lusatia-Lower Silesia). The Saxony State Ministry is providing about DM 77,000 for this project;
- the trilateral transboundary nature protection project in the border region between Germany, Poland and the Czech Republic is aimed at jointly developing measures to protect threatened animal species, especially the otter and white stork. Grants amounting to DM 292,000 from *Land* resources will be made available to the project by the end of 1998.

[Contribution by the Saxony State Ministry for the Environment and *Land* Development]

Joint nature conservation efforts undertaken by the *Land* of North-Rhine/Westphalia and the Republic of Senegal

Since 1985, 142 nature reserves covering a total area of almost 28,000 ha have been designated under North-Rhine/Westphalia's marshlands programme. However, effective protection for populations of the endangered meadow bird species that nest here can only be achieved by safe-guarding their breeding grounds and resting/over-wintering centres.

In 1990, the *Land* of North-Rhine/Westphalia agreed to provide financial and technical support to the Republic of Senegal for rehabilitating and improving its 16,000 ha Djoudj National Park. Large stocks of waterfowl and song birds overwinter in this part of the Senegal delta. In recent years, diking and damming measures in the Senegal river have led to far-reaching changes in habitat conditions in the National Park. In order to investigate ways of restoring the site as far as possible to its original state, a wide variety of nature conservation experts from Senegal, Germany and other countries were brought together to develop a biotope management and development plan for the area. Thanks to funding from North-Rhine/West-phalia, a biological field station has been built at the edge of the National Park. It is used both for research activities on the reserve and for the training of rangers from the Republic of Senegal and neighbouring West African countries. The local community are integrated in the implementation of all these measures. It is hoped that with support from the *Gesellschaft für technische Zusammenar-beit* (GTZ) a buffer zone will be established around the National Park in which traditional uses (pastoral farming, fisheries) can be practised, with a view to countering the persistent spread of paddy fields and, in the long run, replacing rice cultivation with this sustainable form of land use.

[Contribution by the North-Rhine/Westphalia Ministry for the Environment, Regional Development and Agriculture]

International cooperation within UNESCO's MAB Programme

The ecosystem programme "Man and the Biosphere" (MAB) was initiated by UNESCO in 1970. Its mission is to develop, at international level, the scientific foundations required for the ecologically sustainable use and conservation of the biosphere's natural resources and to improve these foundations. This demands that human beings and their spatially relevant activities are included in the analysis. Broadening the approach in this way means incorporating not only ecological but also economic, social, cultural, planning and ethical aspects. In view of the potentially global dimension of humankind's interference with the balance of nature, the MAB Programme provided for cooperation on a worldwide scale from the outset.

The activities of the UNESCO Biosphere Reserves in Germany make an important contribution to the international MAB Programme. Here, the aims of the MAB Programme are defined in concrete terms and implemented in exemplary fashion. Via MAB, the Biosphere Reserves in Germany are engaged with the other members of the Global Network of Biosphere Reserves in exchanging their experience of protecting biological diversity and the ecosystem, developing sustainable forms of land use, conducting research, providing environmental education and raising public awareness.

The Biosphere Reserves in Germany have special significance as Ecological Environment Monitoring System sites. This system operates in representative areas and is designed to help record and evaluate changes in the biosphere as early as possible.

A number of important ecosystem research programmes in Germany are recognised as contributing to the MAB Programme. They include centres and long-term programmes for research into forest ecosystems *(For-schungszentrum Waldökosysteme* in Göttingen), lake systems *(Ökosystemforschung Bornhöveder Seenkette* in Schleswig-Holstein), agri-ecological systems *(For-schungsverbund Agrarökosysteme München)* and the Wadden Sea *(Ökosystemforschungsprogramm Watten-meer)*.

Contributions to FAO programmes for the conservation of genetic resources for food, agriculture and forestry

One of the tasks of the FAO is to contribute to the maintenance and sustainable use of genetic resources in the global, regional and national context. This is done by:

- participating in the work of the United Nations Commission for sustainable development (CSD),
- involvement in the activities of other international structures committed to resource protection and in the work of the Secretariat of the Convention on Biological Diversity and the meetings of the parties,
- further development of the Global System for the Conservation and Sustainable Utilisation of Plant Genetic Resources, the key elements of which are a code of conduct on the collection and removal of phytogenetic resources, the creation of an international network of *ex-situ* collections, development of a world information and early-warning system and of the World Action Plan adopted in Leipzig in 1996 and the Report on the State of the World's Plant Genetic Resources presented at that conference,

- discussions to renegotiate the International Commitment on Plant Genetic Resources and to achieve conformity with the Convention on Biological Diversity,
- the activities of the Commission for Genetic Resources for Food and Agriculture, which superseded the Commission on Plant Genetic Resources when its mandate was extended and will in future deal with the whole area of plant and animal genetic resources (including fish), forest genetic resources and micro-organisms for food and agriculture.

Germany supports the FAO's programmes on the conservation of genetic resources for food, agriculture and forestry, in particular the Global Action Plan for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture, which was unanimously adopted by more than 150 States at the Fourth International Technical Conference of the FAO on phytogenetic resources in Leipzig (June 1996). This plan contains proposals for 20 priority measures in the areas of *in-situ* conservation and development, *ex-situ* conservation, the use of plant genetic resources, capacity building and the creation of institutions. The Member States are in charge of implementation, which is monitored and assisted by the FAO. In principle, a variety of possibilities for funding measures is available through international financing organisations and official bilateral assistance. The role of the GEF and CGIAR in implementing the Global Action Plan is inadequately defined. If possible, these stipulations should be agreed in the course of negotiations on the "International Commitment on Plant Genetic Resources" and in the form of resolutions of the Conferences of the Parties to the Convention on Biological Diversity.

Since forest resources were not, in the end, included in the Global Action Plan for the Conservation and Sustainable Use of Plant Genetic Resources when it was agreed in Leipzig in 1996, Germany is joining with the EU and other States in the FAO Committee on Forests (COFO) in arguing for a World Action Plan for the Conservation and Sustainable Use of Forest Genetic Resources.

In 1990 the FAO Council recommended that an international programme on the sustainable development of animal genetic resources be drawn up. The FAO Committee on Agriculture has been advising the FAO for several years on the development of a global strategy for the management of genetic resources of farm animals. It is to contain national, regional and global components. The global strategy will be designed to

- define animal-genetic resources,
- measure the genetic variety of animal-genetic resources,
- create a global information and early-warning system, and
- take measures to conserve endangered animal-genetic resources.

In 1995 the FAO published the second edition of the World Watch List for Domestic Animal Diversity. It contains a comprehensive global list of farm animals and some related wild animals. In addition, the global Domestic Animal Diversity System (DAD-IS) has been created on the Internet and offers an overview of the most important measures taken and animal stocks held by the countries involved.

Conservation of forest genetic resources within the scope of the pan-European Ministerial Conference on the Protection of Forests in Europe

Since the tree species of importance to Germany tend to be found across parts of Europe, Germany collaborates closely with the European Forest Genetic Resources Programme (EUFORGEN), which has been in existence since 1994. EUFORGEN has now established networks for "black poplar", "cork oak", "spruce", "valuable broad-leafed trees" and "common

broad-leaved trees" (oak, beech). The first three networks should, if possible, also be expanded to include species groups (broad-leaved softwoods, Mediterranean oaks, boreal conifers). The scientists working in the networks are deepening our knowledge of the distribution, biology and genetics of the species and the threat posed to them. The aim is to develop strategies for effective conservation measures and to enable the participants to exchange experience. Although EUFORGEN is a new programme, it has already got off to a promising start.

Contributions to international organisations

The Federal Republic of Germany makes financial contributions to organisations wholly or partly engaged in the conservation and sustainable use of biological resources. The main ones are:

- United Nations Food and Agriculture Organisation (FAO), Rome,
- Office for International Epizootics (OIE), Paris,
- International Council for the Exploration of the Sea (ICES), Copenhagen
- International Council for Game and Wildlife Conservation (CIC), Paris,
- European and Mediterranean Plant Protection Organisation (EPPO), Paris,
- International Commission on Irrigation and Drainage (ICID), New Delhi,
- International Union for the Protection of New Plant Varieties (UPOV), Geneva,
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Hobart,
- International Whaling Commission (IWC), Cambridge,
- International Plant Genetic Resources Institute (IPGRI), Rome.

Subscriptions paid to the aforementioned organizations in 1997 are expected to have amounted to about DM 46 million.

In recent years Germany has paid on average the equivalent of more than US$ 500,000 per annum to the Secretariat of the Convention on Biological Diversity. An additional voluntary payment was also made of US$ 100,000 per annum.

The transfer of technology between Germany and the other Parties to the Convention on Biological Diversity is facilitated by the Clearing-House Mechanism, now being set up, and by the International Transfer Centre for Environmental Technology *(Internationale Trans-ferzentrum für Umwelttechnologie;* ITUT.

German Clearing-House Mechanism

Article 18 (3) of the Convention on Biological Diversity calls for the establishment of a "clearing-house mechanism" (CHM) as an information hub or liaison mechanism to promote technical and scientific cooperation between the Parties and to facilitate the exchange of experience gained in implementing the objectives.

Since 1 November 1995, the Information Centre for Genetic Resources *(Informationszentrum genetische Ressourcen;* IGR) at the Central Office for Agricultural Documentation and Information *(Zentralstelle für Agrardokumentation und -infor-mation;* ZADI) has been developing the informational dimension of the German contribution to the international CHM as part of a project funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and supported by the Federal Office for Nature Conservation (BfN). The project is initially due to run until the end of 1998. As part of the project, an information structure was set up on the World Wide Web in the Internet from which various information sources are

accessible. The development of the information services in the German CHM is supported by a mixed working party consisting of representatives from governmental agencies, nongovernmental organisations from the environmental and development cooperation sector, scientific institutions and the private sector.

In May 1995 and June 1997, Germany organized two highly regarded international workshops on the subject of CHMs, thus putting itself at the forefront in the development of these mechanisms.

The German Clearing-house Mechanism can be accessed in the World Wide Web/Internet at the following address: http://www.dainet.de/bmu-cbd/homepage.htm.
[Contribution by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety]

The CHM constitutes an important component in the "Global Information Infrastructure", an initiative launched in 1995 by the seven leading industrial nations (G7), which includes experimenting with the use of international data networks for transferring science and technology and for creating global "virtual libraries".

Germany chairs a working group concerned specifically with information on biological diversity.

International Transfer Centre for Environmental Technology (ITUT)

The Convention on Biological Diversity contains an obligation to facilitate access to and transfer of technologies required for the conservation of biological diversity. This means that the industrialized countries have an obligation to promote the transfer of technology to developing countries via the private sector.

German companies in the environmental protection sector have broad and varied experience in the development, production and transfer of environmental technology and environmental know-how that can be very useful in the conservation and sustainable use of biological diversity. Since private businesses make their own decisions on how active they wish to become in the developing countries, the policy-makers' task is to create a favourable framework for the transfer of environmental technology. Founded in 1996 in Leipzig on the initiative of politicians, businessmen and scientists, the International Transfer Centre for Environmental Technology *(Internationales Trans-ferzentrum für Umwelttechnologie;* ITUT) contributes to the establishment of this framework..

ITUT endeavours to serve as a platform from which government and the science and business communities - working jointly with the relevant institutions in partner countries - can make a practical contribution towards global processes of sustainable development. It is assisted by two independent institutions operating under its umbrella, ITUT GmbH and the ITUT Association *(ITUT Verein*), which pursue mutually complementary objectives.

The aim of the ITUT Association is the transfer of environmental protection know-how as a contribution to solving regional and global environmental and development problems in the partner countries, raising environmental awareness and harmonising legislation and environmental standards worldwide.

The primary aim of ITUT GmbH is to ensure that the range of products and services offered by German environmental protection companies have sufficient presence and establish a network linking supply and demand on the international environmental protection market. To this end, ITUT *GmbH* liaises closely with ten Environment Area Managers working from the Chambers of Foreign Trade in selected partner countries. At present, Environment Area Managers are operating in Brazil/Sao Paulo, China/Shanghai, India/Bombay, Indonesia/Jakarta, Malaysia/Kuala Lumpur, Thailand/Bangkok, the Czech Republic/Prague, Hungary/Budapest, Poland/Warsaw and Mexico/Mexico City.

ITUT's activities are chiefly financed on a project-by-project basis, such as the programme to develop an information network between the partner countries and German companies producing environmental technology. Since ITUT is a member of the working group designing the German Clearing-House Mechanism, it plays a direct and active part in the implementation of the Convention on Biological Diversity.

Capacity building at ITUT is assisted by the environmental foundation *Deutsche Bundesstiftung Umwelt* (DBU), the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Land government of the Free State of Saxony. For the posts of Environment Area Manager at the Chambers of Foreign Trade, funding is provided by the Federal Economics Ministry.

ITUT can be contacted at:
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Business Park Leipzig,
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04129 Leipzig, Fax: +49-(0)341-6096-751
[Contribution by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety]

Access to genetic resources

There is little experience anywhere in the world of regulating access to genetic resources (Article 15, CBD). Germany is endeavouring to help clarify the complicated legal issues involved. In mid-1995, an initial expertise covering certain segments was commissioned to facilitate the implementation of Articles 15 and 16, and its findings are being evaluated. As a parallel measure to the preparation of legal expertises, a working group on "access to genetic resources" was set up to discuss the problems that occur in practice. Governmental and non-governmental institutions and organisations, including private-sector representatives, are represented in this working group. Initial experience of cooperation in this field was discussed at an international workshop hosted by Germany in August 1996.

Protocol on biological safety

Meeting in Jakarta in November 1995, the Second Conference of the Parties to the Convention on Biological Diversity appointed a working party to prepare a protocol on biological safety pursuant to Article 19 (3) of the Convention, with the task of "specifically focusing on transboundary movement" of living modified organisms. This working party is due to complete its work in 1998.

The future shape of a protocol, particularly its scope and the procedures provided for, was still not clear after the third session of the working party, which took place in October 1997 in Montreal.

A whole number of important questions are still the subject of debate both within the EU and at national level. The next session of the working party will take place in February 1998. It is then intended to consider, through political negotiations, the various options submitted for the legal texts and gradually move towards a concrete formulation of the future text of the protocol.

Tourism

Shortly before the International Tourism Exchange in Berlin in March 1997, a conference was hosted by the Federal Environment Minister to discuss the subject of "Biological Diversity and Sustainable Tourism". The conference was attended by the environment ministers of 18 countries, representatives of the EU Commission, UNEP, GEF, the Secretariat of the Convention on Biological Diversity, the World Tourism Organisation, the IUCN and German tourism association and environment organisations *(Deutscher Fremdenver-kehrsverband,Deutscher Naturschutzring, Deutscher Reisebüroverband, Forum Umwelt und Entwicklung)* and produced the "Berlin Declaration". It represents an initial global consensus on the principles of sustainable tourism that is compatible with nature and the environment. It primarily states that:

- sustainable tourism is a sensible way of using biological diversity and can contribute to its conservation;
- the development of tourism needs to be controlled and carefully managed to ensure that it takes a sustainable course;
- particular attention must be paid to tourism in ecologically and culturally sensitive regions, where mass tourism is to be avoided;
- responsibility for developing sustainable tourism lies with all the actors, especially the private sector, and voluntary initiatives (codes of conduct, quality labels) should be encouraged;
- great importance is attached to the local level, which not only has a responsibility for developing sustainable tourism but should also derive particular benefit from tourism.

On the one hand, the Berlin Declaration is to be implemented via the Conference of the Parties to the Convention on Biological Diversity with the aim of concluding global arrangements for developing sustainable tourism. It is expected that an initial resolution on this will be adopted at the Fourth Conference of the Parties in May 1998 in Bratislava (Slovakia). On the other hand, it forms a basis for activities under the auspices of the UN Commission for Sustainable Development (CSD). Thus, the special session of the UN General Assembly on Environment and Development in June 1997 already commissioned the CSD to submit a work programme on "sustainable tourism" by 1999. In addition, bilateral and multilateral financing institutions are called upon to integrate the principles contained in the Berlin Declaration in their tourism-related funding policies.

As part of its educational work in the development policy field, the Federal Ministry for Economic Cooperation and Development (BMZ) has produced information material targeted specifically at German tourists travelling abroad, which puts the case for socially and ecologically compatible tourism.

6. Financing

This chapter provides a brief overview of funding for individual measures referred to in Chapter 5 that serve to implement the Convention.

Conversion factor: US$ 1.00 = DM 1.80

Measures serving to implement the Convention are financed from a wide range of sources, although the production of the National Report itself incurs no additional costs for the Federal Government *Länder* or local authorities. It is not possible to give a detailed and exhaustive statement of allocations or an estimate of total expenditure. The following table therefore presents only part of the costs incurred.

It should be noted that the list also includes measures in which the conservation and sustainable use of biological diversity is not the main goal but one of several.

Table 4 Existing programmes and measures serving inter alia to implement the objectives of the Convention on Biological Diversity (selection compiled from various sources)

Type of funds	Period	Volume of funding
Federal and Länder programmes assisted by EC grants		
16 projects in Germany assisted by the EC financing instrument LIFE	1991-1995	total DM 79.8 mill., including EC grant of DM 44.5 mill.
13 projects in Germany assisted by the EC financing instrument LIFE	1996-1997	total DM 26.99 mill., including EC grant of DM 11.98 mill.
Agri-environmental programmes on the basis of EC Regulation 2078/92 to promote environmentally sound production methods	1993-1996	total DM 3,082 mill., including EC grant of DM 1,682 mill.
Implementation of EC Regulation 2078/92 in the Joint Federal/Länder Task of Improving Agricultural Structures and Coastal Defences	1997	135 mill. (Federal and *Länder* funds)
Federal Government expenditure on "establishing and safeguarding valuable parts of nature and the countryside that are of representative significance for the nation as a whole"	1997	41.5 mill.
Total Federal expenditure on environmental research: relevant areas of ecological research (including some of the items below)	Annual	Currently at approx. DM 450 mill.
Project funding: BML grants for research and development projects	1997	DM 4 mill.

in the agricultural sector for environmental protection, including conservation and development of natural resources		
BML funding for the conservation of biological diversity, genetic resources, biotechnology and renewable raw materials	Annual	>DM 100 mill.
Project funding: ecological research by the BMBF	Annual	approx. DM 80 mill.
Project funding: nature conservation research by the BMU	1997	DM 9.7 mill.
BMU grants for testing and development projects in the field of nature conservation	1997	DM 10.9 mill.
Overall state expenditure on the promotion of biotechnology research	Annual	> DM 1,000 mill. (of which BMBF: > DM 900 mill.)
Bilateral projects in the field of technical and financial development cooperation serving to implement the Convention on Biological Diversity in the spheres of nature conservation, forestry, agriculture and fisheries, see list of projects in annex	Since 1992 1995-1997	approx. DM 1.5 billion approx. DM 390 mill.
Germany's contributions to GEF	Annual	approx. DM 6 mill.
BMZ support for projects by international nature conservation organisations (WWF, IUCN, WRI, IIED)	1993-1995 1996	equivalent to approx. DM 240 mill. equivalent to approx. DM 200 mill.
Debt relief measures for the benefit of tropical forest protection and nature conservation	Annual	approx. DM 35 mill.
German contribution to the CGIAR	1997	estimated at approx. DM 46 mill.
BML contributions to international organizations concerned with the conservation and sustainable use of biological resources (FAO, OIE,		

ICES, CIC, EPPO, ICID, UPOV, CCAMLR, IWC, IPGRI)	Over several years	totalling approx. DM 3.8 mill.
BML contribution to the staging of the 4th Technical FAO Conference on Plant Genetic Resources, Leipzig 1996	Annual	approx. US $ 500,000 + additional voluntary contribution of DM 100,000
Contribution to the Secretariat of the Convention of Biological Diversity	1995-1998	approx. DM 470,000
Creation of the German contribution to the Clearing-House mechanism		

GREECE

IRELAND

ITALY

9) **International co-operation**

Biodiversity as a factor of global importance is acknowledged by the Convention, which calls upon the signatory countries to provide for global protection programmes in their national plans.

These programmes must provide for initiatives designed to facilitate fair and equitable sharing of benefits between the countries holding biodiversity resources and the ones using them.

A joint approach is therefore required to ensure that optimal solutions are found for the various cross-border problems.

Since 1988, the Cross-Border Conference between the Italian, French and Swiss Ministries of the Environment has been working for the creation of an International Park for Mont Blanc.

In 1991, Italy signed the Convention for the protection of the Alps, a framework agreement setting the objectives for a correct environmental policy, and aimed at the long-term safeguarding of the Alpine ecosystem as well as the protection of the economic interests of the resident populations.

This framework agreement lays down the principles which should inspire the co-operation between the Alpine area countries (Austria, Switzerland, France, Germany, Italy, Slovenia, Liechtenstein, Principality of Monaco and the European Union) in some priority sectors (population and culture, local planning, safeguarding the quality of the air, protection of the soil, water management, protection of nature and the landscape, mountain agriculture, mountain forestry, tourism and recreation, transport, energy, waste economy and management).

In 1996 Italy signed some multilateral co-operation protocols under the Bonn Convention *(ACOBAMS Protoco*l, for the protection of whales in the Mediterranean and the Black Sea) and under the Barcelona Convention *(ASPIM Protocol* for the setting up of a system of specially protected marine areas in the Mediterranean).

Italy is currently committed to other international cross-border initiatives including:

- the setting up of the International Marine Reserve in the upper Ligurean-Provencal Sea, for the protection of whales, with the participation of France and the Principality of Monaco;

- the setting up of the International Park of the Bocche di Bonifacio (Italy - France) with the aim of regulating the various activities such as fishing, merchant shipping of petroleum, gas and chemical tankers, the protection of the marine and coastal ecosystems, the monitoring of human activity with potentially negative impact (tourism, various recreational activities) and cross-border co-operation activities in the scientific environmental field.

- The mixed Italian-Croat-Slovenian Commission for the safeguarding of the Adriatic Sea water and of the coastal zones by the marine pollution (l. n.426, 28 December 1984, the Osimo agreement).

Objective 9.1 co-operation with the developing countries through bilateral initiatives to be implemented with the help of other ministries having jurisdiction for the various sectors (Foreign Affairs, Industry etc.)

Objective 9.2 strengthening of Italian participation in multilateral co-operation programmes (UNEP, UNDP, World Bank, GEF)

Objective 9.3 adoption at the national and international level of codes of behaviour and other measures for protection against the negative environmental and socio-economic impact related to the use of biotechnology.

JAPAN

6.10 International Cooperation

Conservation of the global environment including the biological diversity is a common task of all mankind which cannot be resolved by just one country. In addition, many of the environments containing fertile biological diversity exist in the developing countries. Therefore, it is essential to promote the conservation and sustainable use of biological diversity in the developing countries for the biological diversity in global scale.

Based on such principle and recognition, Japan will actively take part in and cooperate to the activities which are implemented under the international framework for the conservation of biological diversity and the sustainable use of its components, and also will make positive cooperation for the promotion on the conservation of biological diversity and the sustainable use of its components in the environment the developing countries and the world heritage sites which have international high values.

6.10.1 Cooperation through International Framework

[Contribution to Global Environment Facility (GEF)]

Japan has, from the pilot phase, actively participated in and contributed to the GEF designated as the interim institutional structure operating the financial mechanism of the CBD. At present, Japan is donating about yen million), equivalent to about 20% of the total amount of the GEF-phase l. Japan has long been considering that the GEF should be designed as the institutional structure operating the permanent financial mechanism for the CBD, therefore, Japan will make necessary cooperation from this standpoint.

[Cooperation on Information Exchange Biological Diversity]

Japan is preparing the information system biological diversity to correspond to the clearing-house mechanism, that is an information exchange mechanism based on the CBD.

This system has database about the distribution of vegetation, animals and plants species, and so forth, accumulated data obtained through the National Survey on the Natural Environment. In addition, the network with research institutes and specialists relating to the protection of the natural environment is planned to be established, and the information about the biological diversity will be open to the public through Internet.

[Cooperation for Conservation of Wildlife and Ecosystem]

#International Cooperation for Migratory Birds Conservation

Japan has concluded bilateral conventions or treaties for protection of migratory birds species and their habitat with the United States of America, Russian Federation, China and Australia respectively. Under these conventions and treaties, collaborative research projects concerning migratory route and status of migratory birds have been implemented. Also, Japan undertakes cooperation project with the Republic of Korea for the protection of migratory birds based on the agreement of the cooperation for the protection of environment between Japan and Republic of Korea.

Japan promotes establishing “the East Asia-Australasia Shorebird Reserve Network” in which 24 sites of 10 nations have participated. The Yatsu Tidal Flat (Chiba Prefecture) and the Yoshino River Estuary (Tokushima Prefecture) are the two participating sites from Japan to the network.

Japan has also taken initiative to promote “the North East Asian Crane Site Network” which was launched with the participation of 16 sites in 5 countries. Namely the Kushiro-shitsugen (Kushiro Marshes), Akkeshi-ko/Bekanbeushi-shitsugen (Lake Akkeshi/Bekanbeushi Marshes), Yatsushiro and Arasaki join the network.

#Cooperation for Conservation of Coral Reefs under the International Coral Reef Initiative (ICRI)

Japan has added the conservation of coral reefs to the Japan-United States of America Common Agenda and is promoting the activities based on “the International Coral Reef Initiative (ICRI)” Japan supported the 1st Workshop of ICRI held in 1995 in Philippines and the 1st East Asian Seas Regional Workshop held in 1996 in Indonesia. Besides those, Japan sponsored the 2nd East

Asian Seas Regional Workshop in 1997 in Okinawa. Japan will actively participate in the conservation of coral reefs in future as well.

[Cooperation of Agriculture, Forestry and Fisheries by Multilateral Framework]

##Cooperation for Consultative Group on International Agricultural Research (CGIAR)

Japan is donating the second largest amount behind the World Bank to the respective organizations affiliated to the Consultative Group on International Agricultural Research (CGIAR) which will carry out the study related to the agriculture, forestry and fisheries in the developing countries. Also active cooperation such as dispatch of researchers, execution of joint research are promoted.

#Cooperation for Promoting Sustainable Forestry Management

Japan donated funds necessary for the operation of "the Inter-governmental Panel on Forestry (IPF)" established in the 3rd meeting of the United Nations Commission on Sustainable Development held in 1995 and also actively participated in and supported the Panel, for example, by co-sponsoring the Kochi Workshop in 1996, that is one of the IPF intercessional meeting.

Furthermore, for the International Tropical Timber Organization (ITTO) which aims at compatibility between the conservation and use of tropical forests, Japan has been voluntarily donating the largest amount among the participating countries. Japan also has been taking an active role in implementing the International Tropical Timber Agreement (the 1994 Agreement) which entered into force in January 1997, for example, by subscribing to the Bali Partnership Fund.

#Cooperation with International Whaling Commission (IWC)

In order to monitor the resource conditions of whales and the ecosystems surrounding whales, Japan has been continuously providing IWC financial and technical supports for its conducting research programs such as IDCR (International Decade for the Cetacean Research) since 1978 and SOWER (Southern Ocean Whales and Environment Research) since 1996, which has succeeded both IDCR and Blue Whale Research in Antarctica conducted by Japan since 1994. In addition, in accordance with International Convention for the Regulation of Whaling (ICRW), Japan has been conducting the research of minke whale, involving take of limited whale samples, in the Antarctic Ocean and the Western North Pacific Ocean for the purpose of collecting the scientific information which can not be collected by any other research. The results of this biological research have been highly appreciated by the IWC Scientific Committee.

[Cooperation for Study Relating to Biotechnology Safety in the Organization of Economic Cooperation and Development (OECD)]

Japan has been making voluntary financial contributions to the OECD Committee for Science and Technology Policy since 1991 and to the OECD Committee for Environment Policy since 1997 for the activities on biotechnology safety. In future, Japan will actively contribute to the applications of biotechnology to the field of conservation of the environment.

[Participation and Cooperation for International Joint Research Programmes]
#International Geosphere Biosphere Programme (IGBP)

The Iutemational Geosphere Biosphere Programme (IGBP) aims to study the physical, chemical and biological processes controlling the environment of the earth and their interactions and clarify the mechanism of global environmental change. In Japan, these tasks are mainly being undertaken by research institutes such as'universities, and following the first half plan (from 1992 to 1996), the second 5 years plan is undertaken from 1997.

#Antarctic Research Expedition

Japan has been continuously carrying out the Antarctic Research Expedition since 1956 and is contributing to the monitoring of global change of the biological diversity through the observation of biota, etc.

#Basic Study for Conservation of Biological Diversity of the Ocean

To prepare the infrastructure for the conservation of the biological diversity of the ocean, Japan is executing jointly with the relevant countries the highly-precise observation of ocean in the North Pacific Ocean as a part of the World Ocean Circulation Experience (WOCE). Also, to clarify the impacts on the marine environment by nutritious salt, Japan is executing the international joint study useful for clarifying the material circulation mechanism in peripheral seas.

#Man and the Biosphere (MAB) Programme of UNESCO

The establishment of network between the biosphere reserves in respective countries recognized under the MAB Programme is being promoted and the joint study relating to the conservation of biological diversity and the sustainable use of its components is being executed. Japan is also actively contributing to them.

6.10.2 Cooperation with Developing Countries

[Effective Use of Official Development Assistance (ODA)]

Field of environment is one of the areas to be emphasized in the basis of philosophy of the Japanese Official Development Assistance Charter. In "the Initiatives for Sustainable Development toward 21st Century (ISD)" presented to the 19th special session of the United Nations General Assembly held in June 1997, which introduces the environmental policies mainly including Japanese ODA comprehensively emphasizing on biological diversity.

In the field of biological diversity, in order to support the development of systems and organizations for the conservation of biological diversity, capacity buildings, and establishment of basic information on biological diversity, Japan is promoting the preparation of facilities and transferring of the relevant technology and know-how.

Also, recognizing that the detailed activities of private sectors have played an important role in the conservation of biological diversity and the sustainable use of its components, the activities of private sectors in developing countries will be supported by the Japanese Government.

Furthermore, in providing ODA, appropriate consideration to conservation of the biological diversity will be given accurately in compliance with "the Guidelines for Environmental Considerations" in each organization.

[Cooperation for Wildlife Conservation and Protected Areas Management]

Japan is now promoting a comprehensive project for conservation of biological diversity in Indonesia under trilateral collaboration among Japan, United States of America and Indonesia. Japan is now preparing the center for conservation of biological diversity whose function is to store the samples of species of animals and plants and to accumulate the 'information related to the biological diversity. The preparation of facilities and transfer of technology for the conservation and management of the Gmm-Harimun National Park where valuable species are living has been undertaken.

Also, Japan is now undertaking the cooperation such as in the in-situ conservation and captivi-breeding of the crested ibis *(Nipponia nippon) in* China, the protection and management of the World Natural Heritage areas in Indonesia, the development of the conservation and management plan for coral reefs in Philippines, capacity building and training on the coral reefs conservation in developing countries, and so on. Japan will actively continue these cooperation in the future.

[Cooperation in Agriculture, Forestry and Fisheries]

Recently, particularly in developing countries, useful genetic resources such as landraces and their wild relatives, are in danger of extinction due to pressures of development and modernization of agriculture.

In order to overcome these situations, Japan fully participates in the activities of the Commission on Genetic Resources for Food and Agriculture of FAO, and also extends joint research collaboration with developing countries on conservation and use of genetic resources, and will promote such cooperation continuously.

In forestry sector, Japan has been executing surveys on new forest management methods taking fully into account of vegetation shift and the conservation of habitats for wildlife, or the study about the tropical forests in Indonesia, Brazil, and so on, through bilateral cooperation, Japan will promote the cooperation for the management of forests having valuable ecosystems or the systematization of technology for the management of natural forests, and the like.

While Japan has been executing the cooperation for supporting the sustainable development of marine living resources in the developing countries for long time, Japan will continue to seek the way of well-balanced cooperation between sustainable use of marine living resources and the conservation of biological diversity.

[Cooperation for Conservation of Bioresources in Tropical Zone]

Japan has been carrying out the joint study for the conservation of species in the tropical forests and the sustainable use of genetic resources with utilization of biotechnology together with Thailand, Indonesia and Malaysia since 1993. Through the development of the technology for the identification of species which can be applied easily IN the field and the technology of sustainable use of living organisms, Japan will cooperate for promoting the conservation of biological diversity and the sustainable use of its components in developing countries.

NEW ZEALAND

NORWAY

DEVELOPMENT COOPERATION AND OTHER INTERNATIONAL WORK

Existing goals and activities

Implementation of the Convention

A number of the challenges related to safeguarding valuable biological diversity and reducing losses of biological diversity are of supranational character and therefore require binding international co-operation. The Government considers it very important to further develop the Convention on biological diversity and other relevant global and regional agreements and to take practical steps for their implementation.

Multilateral development cooperation

Norway is involved in development cooperation with a number of multilateral organizations concerned with natural resource management. The most important in the context of conservation of biological diversity are the development banks, the UNDP, the FAO and the CGIAR institutes. Cooperation with UNESCO in this field has also been discussed. Norway can have an influence on these multilateral organizations through membership of their governing bodies, cooperation with other member countries, cofinancing of projects and direct support for various measures.

Norwegian members of the governing bodies of the World Bank and the UN system have pointed out the necessity for a holistic approach including sustainable and environmentally friendly development as an integral element. Norwegian multilateral aid, including financing of multi-bilateral projects, is one tool that can be used to exert an influence in the right direction.

Norwegian aid granted through multilateral organizations for the purpose of implementing the Convention on biological diversity is concentrated mainly on the organizations where the greatest effect is expected. Support is therefore given to the organizations with most influence or that have a catalytic function. Support granted through international organizations is intended to have a catalytic effect on growth of the recipient countries' capacity and willingness to integrate biodiversity concerns into their development efforts.

Norway has provided financial support for the World Bank's work on environmental impact assessment and for the efforts of the African Development Bank to draw up environmental profiles for African countries.

Important negotiations are taking place in the FAO on plant and farm animal genetic resources. Agreement has been reached on a Global Plan of Action on plant genetic resources for food and agriculture, which will be associated in some way with the Convention on biological diversity. Norway has supported the negotiations and is working with the FAO on development cooperation programmes specifically dealing with biological diversity in agricultural systems. Norway has played an active role in negotiations within the FAO, and in 1997, joined a Nordic request to the governing bodies of the organization to give priority to this work.

Norway has contributed NOK 220 million to the GEF for work on the protection of biological diversity, which is one of the four focal areas of activity of the GEF. Norway advocates maintaining and strengthening the Fund on the basis of an agreed scale of payments that reflects the contributors' ability to pay.

Bilateral development cooperation

A central element of Norwegian development assistance policy both before and after the entry into force of the Convention on biological diversity has been support for sustainable natural resource management in our partner countries. The importance of contributing to conservation and sustainable use of biological diversity was emphasised in Report No. 19 (1995-96) to the Storting on the main elements of Norwegian policy towards developing countries and subsequently amplified in the report *A Strategy for Environment in Development Cooperation* (1997). Thus, Norway has for many years used development assistance to support measures that have a positive effect on nature management and biological diversity in recipient countries, but it is only more recently that there has been greater awareness that such measures are in fact relevant to and can be viewed as steps in the implementation of the Convention on biological diversity.

Agreements on biological diversity

Norway has also ratified the following conventions focusing on the conservation of various elements of biological diversity:

- The Bern Convention on the conservation of European wildlife and natural habitats. The Convention gives particular emphasis to the protection of endangered and vulnerable species.
- The Ramsar Convention on wetlands of international importance, especially as waterfowl habitat.
- The Bonn Convention on the conservation of migratory species of wild animals. Several associated regional agreements have been adopted. In Europe, there are agreements applying to small cetaceans, waterfowl and bats.
- ˜The Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- ˜The UN Convention for the Protection of the World Cultural and Natural Heritage (the UNESCO Convention), which requires member states to identify and protect their natural and cultural heritage and ensure that it is passed on to future generations.
- ˜The Convention for the conservation of salmon in the North Atlantic (NASCO), which is intended to contribute to the conservation, restoration, enhancement and rational management of salmon stocks.
- ˜The OSPAR (Oslo and Paris) Conventions for the protection of the marine environment of the Northeast Atlantic.

Norway is taking part in efforts to develop the Arctic Environment Protection Strategy (AEPS) under the auspices of the Arctic Council, together with the other seven Arctic states. The CAFF (Conservation of Arctic Flora and Fauna) and AMAP (Arctic Monitoring and Assessment Programme) programmes are both important in this connection. Monitoring pollution and climate change will be a central element of AMAP's future work, while threats to and monitoring of biological diversity in the Arctic are now being given priority within the CAFF programme.

Norway has also signed a agreement on an environmental cooperation programme in the Barents region.

There is close bilateral cooperation between Norway and Russia on environmental issues. A new Norwegian-Russian working group for biological diversity was established in 1997. Topics that will be given priority for the time being are protection of areas, species protection, sustainable use and sectoral integration, monitoring and local cooperation.

In addition, Norway is involved in environmental cooperation with Eastern European countries, particularly with Lithuania and Latvia in the field of biological diversity. For example, the environmental authorities in Latvia have made a national study of biological diversity in cooperation with Norway, and a similar project has been proposed for Lithuania.

A national study on biological diversity has also been carried out in Indonesia within the framework of its environmental cooperation agreement with Norway.

Experience and action since the Convention entered into force

Measures under the Convention on biological diversity

Norway played an active role in efforts to improve the scientific basis for implementing decisions under the Convention. This has been done by arranging two international conferences in Trondheim, the first in 1993 on biological diversity and the second in 1996 on Alien Species. In addition, Norway arranged a workshop on biodiversity in inland waters in June 1997 together with Sweden and some developing and Eastern European countries. The results from the workshop will be used in developing the work programme on freshwater biodiversity under the Convention on biological diversity. Norway will continue to contribute to the scientific work of the Convention on biological diversity by helping developing countries and Eastern European countries to participate.

Norway has participated actively in negotiations on a biosafety protocol by providing legal texts for a protocol. Norway will also explore the possibility of including capacity-building in biosafety as an element of Norwegian development cooperation.

Bilateral development cooperation

Norwegian bilateral and regional development cooperation includes a number of projects and programmes that are either directly concerned with conservation and sustainable use of biological diversity or which include them as an important component of the work.

The Norwegian Agency for Development Cooperation (NORAD) has provided financial support to enable delegates from developing countries to attend meetings of the Conference of the Parties (COP) and for regional and national meetings in developing countries, particularly in southern Africa. This support is intended to strengthen implementation of the Convention in these countries. In accordance with Norwegian policy as regards recipient responsibility, support has also been provided for research, capacity-building and improving institutional capacity relevant to biological diversity in our partner countries. Our experience is that this helps to raise awareness of the importance of biological diversity in these countries, and has made an important contribution to their efforts to develop national action plans for biological diversity.

NORAD uses bilateral development assistance to support measures specifically dealing with sustainable natural resource management in many countries, particularly Tanzania, Zimbabwe, Zambia, Uganda, Namibia, Angola, Mozambique, Botswana, South Africa, Sri Lanka, Nepal, Bangladesh, Indonesia, Nicaragua and Costa Rica. Assistance in the fisheries sector in countries

in southern Africa deserves special mention: measures include surveys of fish stocks, research, development of legislation, arrangements for determining quotas and the establishment of fisheries inspection systems, all of which are important elements of sound resource utilization. Use of the research vessel *Dr Fridtjof Nansen* and cooperation between Norwegian experts and institutions in the recipient countries has given very satisfactory results. The FAO has, with support from NORAD, used *Dr Fridtjof Nansen* for natural resource monitoring along the coast of northwestern Africa.

In Costa Rica, NORAD has assisted the national institute for biodiversity (INBIO) in surveying the country's natural resources. We have found that support for INBIO's work has helped to focus attention on the value of biological diversity and on the fact that this diversity can be a means of promoting balanced economic development.

In most countries in the South, biomass plays a central role in energy supplies. Since 1989, NORAD has been supporting a project to survey and map forest resources in Uganda, with the aim of ensuring effective and sustainable use of the country's natural resources. A combination of advanced technology and traditional vegetation studies has been used to prepare maps of the distribution of the forest in the country. Uganda thus has a unique opportunity to monitor the development of these resources.

Since 1986, NORAD has been providing support for Zambia's efforts to protect some of the variety of its natural environment. This has focused especially on the active involvement of the local population in the management of a national park where poaching used to be a serious problem. By ensuring that the local people receive some of the proceeds from sales of hunting quotas for animals outside the park and a share of the income generated by the park, it has been possible to reverse their negative attitude to the park. It is now in their own interest to support efforts to conserve biological diversity in the area. Experience from Zambia and other countries with valuable biological resources shows that it is essential to ensure that local people are aware of how they can benefit from their conservation. In many countries, natural resources outside protected areas are also under great pressure. This is true, for example, in the lowlands of Nepal, where the King Mahendra Trust for Nature Conservation in cooperation with the Norwegian University of Agriculture. The project is being carried out near a national park which both the Nepalese authorities and the international community wish to protect, and its aim is to ensure that the local population has the necessary natural resource base for a decent life without gradually being forced to impoverish the resources of the national park. The project is focusing particularly on involving the local people so that they can gradually take over responsibility for the project. The results so far are positive and show that with some support, negative developments can be reversed.

Box 8 The Sahel-Sudan-Ethiopia programme

The Sahel-Sudan-Ethiopia Programme (SSE Programme) is a major programme involving a number of Norwegian and international organizations, and includes activities that are directly relevant to the Convention. The projects in the programme are based on the principle that the development of agricultural and natural resource management systems that prevent hunger and improve food security will also help to conserve biological diversity. Activities within the SSE Programme that are particularly relevant to the Convention include the development of local management systems, awareness-raising regarding environmental issues, and discussions on the use of new technology, new plant varieties and therefore new cultivation techniques in agriculture. During the past five years, the programme has received support from the Centre for International Environment and Development

Studies (Noragric) at the Norwegian University of Agriculture, which has been carrying out a kind of formative process research. This work has involved documenting local knowledge and advising local and Norwegian participants in the projects, thereby supporting the activities in the programme. An important aim has been to ensure that the pastoral lifestyle can be maintained on the nomads' own premises in accordance with the provisions of the Convention relating to the rights of indigenous and other local communities. In contrast to what has previously been assumed, it appears that pastoralists have a less harmful impact on the environment than permanent settlers, and that their lifestyle does not impoverish biological diversity.

In Zimbabwe, another programme involving cooperation between the authorities and the local people to improve natural resource management is in progress. It is called CAMPFIRE (Communal Areas Management Programme for Indigenous Resources). Its purpose is to make local communities responsible for game management in their territory and to ensure that they receive the income from hunting and tourism regulated according to ecological principles. Through the WWF, NORAD is supporting one of the activities under CAMPFIRE, whose purpose is to assist the local population with administration of revenues for the benefit of the whole community.

As part of its regional development cooperation, Norway has for some years been supporting the SADC gene bank for agricultural plant genetic resources, and also several smaller projects involving both plant and animal genetic resources, mainly via NGOs. Our experience suggests that the most successful projects are those which involve local farmers actively in surveys of genetic resources and breeding programmes. Examples include the Southeast Asia Regional Institute for Community Education (SEARICE) and a model project for sustainable agriculture in the state of Acre in Brazil.

NORAD's support schemes for NGOs, both at national and international level, provide funding for many activities that are in accordance with the objectives of the Convention on biological diversity.

It is particularly important to recognize the role of women in natural resource management. In several areas of the SSE countries, for example, women have detailed knowledge of the uses of local seed varieties, and acknowledgement of this can make an important contribution to the conservation of biological diversity. Many projects include the establishment of local women's groups, to improve the position of women who play such an important role in food security.

NORAD supports various IUCN initiatives directly related to the Convention, such as the *Sustainable Use Initiative* and *Biodiversity Conservation Information System*s. The *Global Biodiversity Foru*m, which is the NGO conference held before meetings of the Conference of the Parties, has also received contributions from Norway.

Cooperation between the Norwegian Rainforest Foundation and the inhabitants of the Xingu Indigenous Park in Brazil also illustrates the fact that establishing a reserve is not sufficient to protect biological diversity in an area: the local population must also be ensured an income and opportunities to harvest resources if permanent solutions are to be found.

Box 9 The Xingu Indigenous Park: how to safeguard a protected area
Protection of an area is important, but it is only the first step in a long process. "Protected areas" do not protect themselves. The Norwegian Rainforest Foundation, with support from NORAD's Department for Non-governmental Organizations, has been working in the large Xingu park in

the Brazilian state of Mato Grosso since 1993. The area covers 32 000 km² and has a population of barely 4,000, split among 17 different ethnic groups.

When the park was established in 1961, it was surrounded by untouched rainforest, and the Indians had minimal contact with the outside world. Since then, however, pioneer towns have grown up all round Xingu, and the reserve is under great pressure from timber companies and cattle ranchers. Deforestation has reached the boundary of the reserve in several places already. In accordance with the Rainforest Foundation's primary strategy, which is to work with local people to preserve forest resources, four long-term projects have been developed which together constitute an integrated approach to the problems in this area.

The "boundary watch" project is directly related to the task of maintaining the area intact. The Foundation's Brazilian partner, ISA, provides updated satellite-based maps showing forestry roads, deforestation and logging operations around the park. The maps and the situation are discussed with the Indians, who are themselves responsible for boundary watch expeditions, maintaining the open strips of land along the park boundary and, not least, contact with the local authorities and business and industry to ensure that the park boundaries are respected.

However, the world has seen many examples of encroachment on such reserves when the needs of the local people are ignored. People are liable to accept short-term solutions if they can see no alternative. The Rainforest Foundation therefore considers the other three projects to be very important. Marketing of rainforest products is designed to meet the Indians' modest but growing need for market products through the production and sales of products that do not damage the natural resource base. Sun-dried bananas and honey command good prices and have a large potential. Crafts have brought in some income for many years, while palm oils for the cosmetic and pharmaceutical industry are only at the research stage. The Indians are receiving training in the administration of production, distribution, sales and accounting so that the project can later be continued without outside help.

The education project is giving training to young people from all 17 tribes (with 17 different languages) so that they themselves can teach basic reading, writing and arithmetic to their tribes. The project encourages respect for the tribes' own traditions and language, but also provides the knowledge needed to meet the challenges posed by the modern world. The project is developing a teaching model that is culturally sensitive and designed to strengthen the Indians' self-respect and independence. The fourth project in the programme is technical training in the maintenance and simple repairs of boats, boat motors, generators, two-way radios and other modern equipment that is occupying an increasingly important place in the Xingu Indians' everyday lives.

The programme, large parts of which may not appear to be directly relevant to biological diversity, gives the local people more control over their own future, and therefore encourages their involvement and participation in sustainable natural resources management. Despite increasing deforestation and pressure on areas around the reserve, the Xingu reserve is still 100 per cent intact.

Challenges and planned action

NORAD intends to play an active role in following up the topics listed under conservation and sustainable use of biological diversity in the *Strategy for Environment in Development Cooperation*. In its dialogue with partner countries, Norway will support their efforts to implement their obligations under the Convention and other relevant international agreements. In particular, Norway will continue its support to parts of Africa that are experiencing drought, and

implementation of the Convention on biological diversity and the Convention to combat Desertification will be central elements of this.

NORAD will follow up and support new projects based on the principle of locally-based natural resource management. Support for surveys of biological diversity as a basis for the protection and rational harvesting of resources will be important, both in aquatic and in terrestrial environments. Support for the monitoring and management of fish stocks and other marine resources will continue to play a central role in Norwegian development assistance.

The conservation of genetic diversity in the agricultural sector is also a priority area in the strategy for environment in development cooperation (caps). NORAD views it as an important task to find ways of implementing the Global Plan of Action for plant genetic resources for food and agriculture. From 1998, NORAD will support the FAO and other institutions with a view to reducing the use of pesticides in developing countries. Conservation of plant genetic diversity both in situ and ex situ, must be a central component of this.

We will also support research on biological diversity, particularly research pertaining to the relationship between biodiversity and sustainable production processes.

PORTUGAL

4.8 – Development Cooperation

4.8.1 – Introduction

Portuguese Development Co-operation Policy constitutes one of the main aspects of the country's foreign policy and addresses such fundamental values as the promotion of peace and solidarity, the consolidation of democracy, the law-abiding and human freedom-respecting State, and the defence and promotion of the use of the Portuguese language and culture. As far as the "environment and development" aspect of this policy is concerned, it embraces two concepts which are unquestionably related and are ever-more present in Portugal's co-operation policy, both in terms of the preparation of projects and as regards the support for concrete actions in this particular area of development.

4.8.2 – Cooperation And Financial Assistance

The main aim of Public Development Aid (PDA) – taken to mean the total volume of aid flow (e.g. donations and/or the granting of loans on at least a 25% basis) intended for developing countries and multilateral institutions created by public bodies – is to promote the economic development and well-being of those countries. The total amount of Portuguese PDA in 1996 was 217.93 million USD, which represents 0.21% of the Gross National Product at market prices. 56% of this was specifically allocated to the environmental sector, which demonstrates the relative weight which this sector possesses in the overall context of Portugal's co-operation policy.

It should also be noted that Portuguese PDA is essentially aimed at the Least Developed Countries (LDC's), amongst which Portuguese-speaking African countries stand out as the main recipients, particularly as regards co-operative actions undertaken in the environmental field in a bilateral manner. There are a number of important projects concerning the creation of solid bases for sustainable development which are making a substantial contribution to achieving the

objectives of the Convention on Biological Diversity, especially by means strengthening institutional capacity and providing technical support and vocational training. As far as aspects related to the conservation of biological diversity are concerned, in concrete terms Guinea Bissau and Cape Verde have been the countries which have benefited most from Portuguese government aid in the environmental sector, via the implementation of some important projects, amongst which the following deserve a particular mention:

Guinea-Bissau

- The Flora of Guinea-Bissau
- The Phyto-ecological Diversity of the Mata do Cantanhez
- The creation of the Lagoa da Cufada Natural Park (co-financed by the European Union and Portugal).

In addition to these projects it is also worth specially noting the vocational training activities and the projects designed to promote the defence and rational use of forest resources, the institutional support provided to the Ministry of Agriculture's Forestry Services, and the "Forestry Industries" project, which is incorporated within the Tropical Forest Action Programme.

Portugal also collaborated in and financed an international meeting in Guinea Bissau on the Creation of the Bolama-Bijagós Biosphere Reserve.

Cape Verde

- A Taxonomic and Ecological Study of Endemic Species of Reptiles
- The Flora of Cape Verde
- The Vegetation and Flora of Santiago Island
- The Biodiversity and Zoo-geography of the Cape Verde Islands
- Bio-climatic Aspects of the Cape Verde Archipelago
- Charter of the Agro-Economic Zoning and Vegetation of Santo Antão Island

Other relevant actions were centred on the regulations drawn up under the Constitutional Law on the Environment, hazardous urban waste, the improvement of the quality of the environment, information, a documentation fund, and training.

Portugal's co-operation with and assistance to São Tomé and Principe involved the following areas: legislation, education, increasing environmental awareness, the quality of the environment, and staff training / conversion.

Highlights of Portugal's co-operation with Mozambique include its involvement in the "Coastal Strip Management and Protection Project", as well as its participation in the "Project to Reinforce the Capacity for Intervention of the National Directorate of Forests and Wild Fauna" by means of the provision of training in the forest resource management field to a group of specialists drawn from those of the Directorate's personnel who are stationed in parks and reserves.

While we are on the subject of Development Co-operation we also feel that it is appropriate to mention the holding of the 1st Lisbon Conference of the CPLP (Community of Portuguese-Speaking Countries) Environment Ministers in 1997, during the course of which the respective ministers accepted that training would henceforth constitute a strategic foundation for all future co-operation in the Portuguese-speaking area.

As a corollary to this subject, two examples of this line of action deserve special mention: the Mid-Level Environmental Management Course which was provided to 16 specialists from

Mozambique, and the CITES Licensing Management Course for senior PALOP managers. The former was organised under the didactic and pedagogical guidance of the Professional Development Education School (EPED), while responsibility for the latter was taken by the Nature Conservation Institute (ICN).

From the point of view of multilateral co-operation, Portugal continues to attend the international conferences organised within the ambit of the follow-up to the Rio Conference. A key element in this process is Portugal's participation in the meetings related to the Convention on Biological Diversity as well as in the other international programmes referred to throughout this report.

Table 1 below details Portugal's contributions to multilateral institutions within the Public Development Aid in 1996.

TABLE 1 – *Portuguese contributions to Multilateral Institutions within the ambit of Public Development Aid (1996) (*In millions of USD)

MULTILATERAL INSTITUTIONS	*CONTRIBUTION IN 1996*
A.1. United Nations bodies accounted for as a whole	
UNDP	*1.49*
UNICEF	*0.10*
UNRWA	*0.05*
UNFP	*0.02*
A.2. United Nations bodies accounted for separately	
WHO (75.4%)	*0.88*
WIPO (30.0%)	*0.02*
FAO (52.8%)	*0.50*
ITO (15.4%)	*0.11*
UNESCO (25.0%)	*0.26*
B. The Commission of the European Communities (CEC)	
CEC	*42.76*
EDF	*10.51*
C. Regional banks and specific funds	
IDB – Special Fund	*0.32*
AMSCO	*0.50*
D. Other agencies and funds	
GEF	*1.22*
FIAS	*0.10*
MIF	*0.77*

Source: Portuguese Co-operation Institute (ICP), 1996

5 – FINANCIAL RESOURCES

Given the large number of sectors involved in pursuing the objectives of the Convention on Biological Diversity in Portugal, it is not possible to describe all the financial resources involved in its application. It may be possible to carry out this essential work in the future, once the national strategy for the conservation of biodiversity has been drawn up.

Nonetheless, chapter 4 does refer to information in this regard whenever it is available.

When it comes to the financing of international projects, the Global Environmental Facility (GEF) is a permanent and definitive international co-operation mechanism which provides

concessionary resources and donations to developing countries (DC's) for projects and other activities which protect the global environment in one or more of four major areas: climate change; biodiversity; the protection of international waters; and the protection of the ozone layer.

In the pursuit of its objectives, GEF is the interim financial mechanism for the application of the Convention on Biological Diversity and must function in accordance with the guidelines laid down by the Conference of the Parties, which decides the policies, priority programmes and eligibility criteria designed to achieve the Convention's aims. 2 billion USD was placed at GEF's disposal in the period between March 1994 and March 1997. During the course of a pilot phase, GEF financed 57 projects which fell within the ambit of the Convention on Biological Diversity (50% of all projects financed), to a total value of 331.65 million dollars. Around 305 projects were also financed during the pilot phase via the "Small Grants Programme", at a total cost of 5.4 million dollars. 30 CBD-related projects were approved during the course of GEF-I (30% of the total), to a total value of 88.21 million dollars.

Portugal joined the pilot phase of GEF in 1992 with a contribution in escudos worth the equivalent of 4.5 million Special Drawing Rights (SDR's). This contribution took the form of three promissory notes, the redemption of which took place over the period up to August 1997.

Portugal has contributed around 892,268,800 escudos – which is to say 4 million SDR's – to GEF-I, to which end it has already issued four promissory notes in the amount of 223,067,200 escudos each. These promissory notes will be redeemed over the period up to the year 2006.

During the course of 1997 negotiations took place amongst all the donor members with the intention of constituting new resources for GEF. These negotiations included the definition of each member's level of "burden-sharing".

SPAIN

3.6 Cooperación internacional

España, considerada en de vias desarrollo hasta 1983, es actualmente un país donante que destina cada vez más recursos económicos a cooperación internacional. En 1995 fueron 1.300 millones de dólares, el 0,23% del producto interior bruto, aunque todavía queda un trecho para alcanzar el 0,7% que es la meta para el año 2000. Nótese que existe en España un interesante sistema que permite al ciudadano destinar el 0,5% de sus impuestos a la iglesia o a actividades sociales, como pudiera ser la ayuda a países en vías de desarrollo.

La mayor parte de la ayuda exterior bilateral se centra en cooperación al desarrollo. La proporción de proyectos relacionados con medio ambiente o con el uso racional de los recursos naturales y la preservación de la biodiversidad es difícil de determinar, pero en general es muy bajo. En 1996, de un total de casi 57.000 millones de pesetas invertidas en cooperación exterior, solo 798 millones es directamente atribuible a proyectos ambientales, incluida la formación e investigación medioambiental, y 143 millones (el 0,25%) a biodiversídad específicamente (ver Tabala 14). Iberoamérica recibe aproximadamente el 43% de esta ayuda (58 proyectos de contenido ambiental en 16 países), le sigue Africa con el 37% (Marruecos, Argelia, etc.), luego Oriente Próximo con el 15% y, finalmente, Asia con el 5%.

Estos fondos son gestionados por la Agencia Española de Cooperación Internacional (AECI) y en una gran proporción (53% para el caso de Iberoamérica) se aplican a través de organizaciones no gubernamentales. El presupuesto de Iberoamérica se ha visto incrementado en un 23% para 1997.

Al amparo del subprograma <<XII Biodiversidad>> del programa CYTED (Ciencia y Tecnología para el Desarrollo) iniciado en 1992, funcionan 6 redes de intercambio científico relacionadas con diferentes biomas (montañas tropicales, costas, desiertos, selvas, ecosistemas mediterráneos y pastizales). Cada red la componen expertos de unos 10 a 20 centros académicos y de investigación de al menos 5 a 7 países. En los talleres y seminarios que regularmente se celebran, se intercambian experiencias y de ellos surgen algunas propuestas de proyectos concretos.

Tabla 14 Proyectos de cooperación Española en materia de biodiversidad

Sector de actividad	Ibero-américa	África	Oriente Próximo	Asia	Total
Conservación de recursos naturals, apoyo institucional	37	14	4	2	57
Parques nacionales y áreas protegidas	6	1			7
Conservación de la diversidad biológica	4	6	1	2	13
Capacitación sobre medio ambiente y biodiversidad	11	3			14
Total	58	24	5	4	91

En relación directa con el Convenio sobre Diversidad Biológica, en noviembre de 1997 y financiado por el Gobierno Español, se celebró en Madrid el <<Taller sobre conocimientos tradicionales y diversidad biológica>>, con participación de unas 300 personas. Este taller fue planteado por la 3a Conferencia de las Partes (Buenos Aires) con el objeto de fijar posturas en relación al artículo y llevar una propuesta a la próxima conferencia, en Bratislava. Durante este taller, la AECI presentó su «Estrategia de Cooperación con los Pueblos Indigenas>> en la que se incorpora como punto destacado el promover el desarrollo del artículo 8j del Convenio, se asume el derecho de los pueblos indígenas a participar en las decisiones que les afecten y se expresa el compromiso español de apoyo. Ya en la Asamblea General del Fondo Indígena (Bolivia, mayo de 1997) España comprometió una aportación de 5 millones de dólares para su fondo fiduciario.

Por otra parte, el Ministerio de Medio Ambiente estudia la ubicación en España de la sede de <<Biotrade>>. Esta iniciativa de la Organización de las Naciones Unidas para el Comercio y el Desarrollo (UNCTAD) está orientada a conjugar el comercio internacional con el reparto equitativo de beneficios de la biodiversidad y el acceso a la biotecnología que persigue el Convenio sobre Diversidad Biológica. La Oficina Española de Patentes y Marcas participa como importante fuente de documentación (c.f. apartado 3.4).

SWEDEN

6.9 International development cooperation

At both the standard-setting and the operational level, Sweden is actively seeking to promote a clear environmental and sustainability dimension to international development cooperation. One

of the objectives of our development cooperation programme is to promote sustainable use of natural resources and protection of the environment. The conservation and sustainable use of biological diversity are one important component of this goal. The Government's communication to Parliament on 'Sweden's international cooperation to achieve sustainable development' describes the tangible guidelines that are to govern future efforts on both a multilateral and a bilateral basis. Decisions on priorities are to be guided by the overarching objective of combating poverty. To promote sustainable development, it is above all essential to integrate environmental considerations in all activities.

Regarding *multilateral development cooperatio*n, Sweden is emphasizing, on the World Bank's Board of Executive Directors, that strong local involvement is essential if adequate attention is to be paid to the environment and sustainability. A policy dialogue with borrowing countries is important in ensuring that the Bank supports countries' own efforts in the area of biodiversity. Sweden has also stressed the importance of safeguarding the environment not only by means of special projects or components which specifically promote environmental protection, but also at the macro level, in the Bank's structural adjustment lending. It may be necessary to develop strategies and action plans for the conservation and sustainable use of biological diversity, but it is also necessary to reduce any adverse impacts of planned reform programmes in this respect.

Another way of promoting the protection of the environment and biodiversity has been to take account of the findings of environmental impact assessments at as early a stage as possible in the World Bank's country strategy process. Recent evaluations conducted by the Bank have highlighted the importance of incorporating such findings at the right point in time.

Concerning more targeted multilateral projects to promote biodiversity, Sweden has supported the Global Environment Facility (GEF) since it was created. Between 1994 and 1997, Sweden was a member of the GEF Council and actively sought to ensure that the GEF established itself as an important player in multilateral efforts to achieve the objectives of UNCED, not least in the framework of its particular mandate with regard to biodiversity. This work is continuing in the constituency group to which Sweden belongs, and which is currently represented on the Council by Finland.

Bilateral development cooperation is guided by the same principle as all the other development cooperation supported by Sweden, i.e. that environmental protection and sustainable development should in the first instance be promoted as an integral part of all projects and programmes. The basic concern of this development assistance is to eradicate poverty, in connection with which account also needs to be taken of the environmental and development problems of cities and the modern sector. Priority is being given to action in a number of areas of particular importance in achieving sustainable development and promoting biodiversity: freshwater management, agriculture and forestry (including soil conservation), the coastal zone environment and the urban environment. The main instrument used in this context is support for capacity- and institution-building in a broad sense. In the annual funding document issued to the Swedish International Development Cooperation Agency (Sida), the Government has the possibility of broadening Sida's responsibilities in this area.

In 1996, Sida adopted an Action Programme for Sustainable Development. Its basic principle is that environmental issues should be integrated into Sweden's development assistance activities, in accordance with the undertakings that follow from the country's endorsement of, *inter ali*a, Agenda 21 and the Convention on Biological Diversity. Development assistance should:

- help recipient countries to identify and implement activities which protect and conserve their natural resources and environment,

- give prominence to and support long-term sustainability,
- be guided by the principle that prevention is better than cure, and
- enable recipient countries to plan on a longer time-scale.

This has the following consequences:

- Environmental factors must be taken into account both in the overall development analysis and in analyses of countries, sectors and projects.
- Sweden should refrain from supporting projects which obstruct sustainable development.
- Environmental thinking and environmental dimensions must be integrated into the work of all of Sida's departments.

The action programme identifies a number of priority areas for environment-related activities over the next few years: water resources, sustainable agriculture and forestry, including soil conservation; the marine environment; urban environment issues; and environmentally sound energy consumption and production.

These overall principles directly affect the way biodiversity issues are handled in Sweden's development cooperation programme.

Guidelines on activities relating to biodiversity

The conservation and sustainable use of biological diversity constitute one of the areas given priority in bilateral development cooperation. In 1994, a set of strategic guidelines were adopted for work in this area, laying down among other things that:

- Impacts on biodiversity should be analysed and taken into account in all programmes and projects in all sectors.
- Sustainable use of biodiversity should be an integral part of Sida's programmes and projects in the natural resources sector.
- Sweden should give priority to support for sustainable use of biodiversity in areas used by people for productive purposes.
- Attention should focus on the local needs of poor people – who are directly dependent on agriculture, forests and aquatic resources – and local control of biodiversity should be actively supported.
- Selective support should be given to specific projects involving, for example, capacity-building and methods development.

In addition, Sweden should cooperate with other donors and non-governmental organizations and follow international developments in this area.

These guidelines have subsequently been given more tangible substance. As a result, particular emphasis has been placed on the following areas:

- General intellectual property rights issues, including the CBD's relationship to other international agreements, such as the WTO TRIPS Agreement and the FAO Undertaking on Plant Genetic Resources, and also a joint project involving the World Bank (IBRD/ESDAR), the International Centre for Food Policy Research (IFPRI) and Sida/SAREC.
- Agrobiodiversity, plant breeding (including exchanges between institutional and traditional/local plant breeding) and seed production in relation to intellectual property rights issues, and the consequences for agricultural and rural development and food security.

- Research, methods development and capacity- and institution-building in the above areas. Priority is also given to support for NGOs, with the aim of creating scope for debate and dialogue.

Implementation

Sweden is seeking primarily to support processes and to work through various organizations and other actors – international and regional organizations, as well as national authorities, research institutions and NGOs.

Since the Convention on Biological Diversity came into force, Sida has consciously sought to integrate biodiversity issues into all its activities, rather than to increase its support for narrow biodiversity projects. The principal tool in achieving this integration is environmental impact assessment.

In the natural resources sector, particular weight is being attached to issues concerning the sustainable use of components of biodiversity. Biodiversity has a prominent place in many projects relating to agriculture, forestry and the marine environment, above all integrated with production issues, but also in the form of specific projects.

As regards methods, Sweden has placed a great deal of emphasis on capacity- and institution-building efforts aimed at authorities and research establishments. Priority has also been given to the opinion-forming and information activities of NGOs.

Bilateral activities focusing on biodiversity

Examples are given below and in Appendix 1 of projects and organizations in the area of biodiversity which Sweden is currently supporting, together with an outline of internal planning and policy development work over the last five years. Within Sida, the main departments directly involved in biodiversity projects are Natural Resources and the Environment (NATUR) and Research Cooperation (SAREC).

In general, Sweden's development cooperation programme seeks to establish collaboration with a wide range of partners in the South. In the biodiversity field, this cooperation encompasses both international bodies – including the Consultative Group on International Agricultural Research (CGIAR) and the United Nations Food and Agriculture Organization (FAO) – and regional organizations, such as the SADC Plant Genetic Resources Centre (SPGRC). National authorities and non-governmental organizations are also supported. A major commitment with regard to genetic resources policy and property rights issues is a joint project involving the World Bank, IFPRI and Sida.

Agriculture

Sweden has focused attention on agrobiodiversity issues in a variety of contexts. Since UNCED in 1992, we have sought to harmonize efforts at the policy level (FAO, CBD/COP) with the experience gained from specific programmes and projects supported by Sweden. Priority has been given to plant genetic resources and gene banks (including the work of the SPGRC in southern Africa), plant breeding and seed production, and intellectual property rights issues; this is quite natural, given the close links between these areas and agricultural production and food security.

Forestry

Forestry-related biodiversity is being supported through a number of projects, including the development of methods for local and sustainable use of tree and forest resources through the FAO-based Forests, Trees and People Programme. Funding is being provided for several research projects on the ecology and management of indigenous forests, with a focus on the management and regeneration of dry forests. This research is being carried out at several levels, international as well as local. Support for agroforestry – cultivation systems which combine trees and agricultural crops – is helping to enhance the biodiversity of the farmed landscape.

Marine environment and coastal development

Sweden's bilateral marine programme focuses on integrated coastal zone development. Coral reefs are one important specific area within the programme. Knowledge advancement and international activities are supported through several channels, including the World Resources Institute and the International Centre for Living Aquatic Resources. Other commitments in the marine sector include ongoing research projects on coastal zone ecosystems and mangroves, with the emphasis on East Africa.

Non-governmental organizations

A range of environmentally oriented NGOs, both major international organizations and smaller local ones, are receiving support for policy work, capacity-building and opinion-forming.

Internal policy development

A significant amount of work is being done within Sida to elaborate strategies and guidelines reflecting environmental conventions signed by Sweden, and to develop methods for integrating environmental issues, including biodiversity, into day-to-day activities. In this connection, internal training on environmental issues for all of Sida's staff plays an important role.

In 1995/96, Sida also carried out a broad-based study on food security in eastern and southern Africa, which serves as a complement to the Action Programme for Sustainable Development and the guidelines on biodiversity-related activities mentioned earlier.

7. Financial resources

As earlier chapters have made clear, Sweden is seeking to implement the Convention on the basis of integrating biological diversity into the policy areas and sectors concerned. It is extremely difficult therefore to estimate the total sum being devoted by central government to the conservation and sustainable use of biodiversity. The expenditure involved is spread over several government ministries and 'expenditure areas'. What is more, it is often incorporated in larger expenditure items and allocations, for example alongside funding for other environmental measures or more production-related appropriations.

The task becomes even more difficult if we attempt to estimate the resources invested in biodiversity by research establishments, municipal authorities, different economic sectors, non-governmental organizations etc. For example, the changes that are being introduced in forestry to make it more sustainable and the rules on day-to-day nature conservation measures contained in the forestry legislation mean that substantial costs are being borne by the forestry sector itself.

The same is true – although the sums involved may not be as substantial – in the agriculture, fisheries and reindeer-herding sectors.

A few examples of resources allocated to biodiversity in the *central government budget* are set out below. All the figures relate to the 1997 budget, unless otherwise indicated. As has already been made clear, these figures do not give a comprehensive picture of the funds being devoted to this purpose.

Expenditure area specifically relating to environmental protection

The Swedish state budget for the financial year 1997 totals SEK 677,541 million (all expenditure areas). One area of expenditure (out of a total of 27) which is of importance for biological diversity is 'General environment and conservation', which has a total budget of just under SEK 1,330 million. Important allocations for biodiversity within this expenditure area include:

Framework allocation to Environmental Protection Agency	SEK 355 m.
Environmental monitoring	SEK 94 m.
Liming of lakes, rivers and streams	SEK 130 m.
Safeguarding natural areas of conservation value	SEK 217 m.
Research on the environment and low-waste materials cycles	SEK 135 m.
Certain areas of international environmental cooperation	SEK 41 m.

Most of the allocation devoted to safeguarding natural areas of conservation value (primarily national parks and nature reserves) benefits biodiversity, although such areas are protected for other reasons, too, such as their recreational or geological interest. The sum shown includes grants from the EU's LIFE fund (an estimated SEK 25 million). Freshwater liming is now carried out primarily with the aim of conserving biological diversity, and the whole of this appropriation must be regarded as benefiting biodiversity.

The other allocations set out above are intended for environmental protection efforts in general, and obviously biodiversity is a major aspect of those activities (see in particular chapter 3). The Environmental Protection Agency's framework allocation, for example, pays for the maintenance and management of protected areas (approx. SEK 75 million) and for work relating to threatened species (just under SEK 4 million). The allocation for environmental monitoring funds is covering the monitoring programme in its entirety and some other expenses. About 66 million SEK is used for actual environmental monitoring; it is hardly possible to estimate how large a proportion of this is of relevance to biodiversity. It should be noted that only the framework allocation can be used for staff costs at the central level (in addition to serving the purposes just mentioned).

The research allocation is intended for all environmental research, including research relating to low-waste materials cycles ('ecocycles'). As was noted earlier, as from 1998 this allocation is being discontinued and the majority of funding for environmental research is being taken over by a research foundation (MISTRA). Here, too, it is difficult to estimate what proportion of the total can be said to be directly or indirectly beneficial to biodiversity. An earlier estimate by the Environmental Protection Agency showed that, in the 1992/93 financial year, roughly SEK 65 million (1992 prices) was spent on biodiversity-related research, including funding from all sources. The great majority of this work was believed to be at the species and organism community levels (SEK 25 million and SEK 16 million, respectively).

The allocation for 'Certain areas of international environmental cooperation' includes, among other things, the cost of Sweden's contributions to international environmental conventions and agreements, meetings and processes within the UN system, and environmental cooperation under the auspices of organizations such as the OECD, the UN ECE and the Council of Europe, and relating to the Arctic region. A large proportion of this cooperation touches to a greater or lesser degree on the subject of biodiversity.

Sectorally integrated resources in other expenditure areas

Several major items of expenditure relating to biodiversity are to be found in the expenditure area 'Agriculture and forestry, fisheries etc.'. The largest item is the Swedish agri-environmental programme, set up under the EU's Council Regulation (EEC) No. 2078/92 on agricultural production methods compatible with the requirements of the protection of the environment and the maintenance of the countryside. This programme has a total budget of SEK 1,050 million, of which around SEK 420 million is being used to promote biological diversity (chiefly by supporting management of semi-natural grazing lands and meadows). Just over SEK 200 million is devoted to the conservation of cultural heritage values (payments which in many cases also favour biodiversity). For further details, readers are referred to the case study on the Swedish agri-environmental programme.

Another expenditure item, amounting to just under SEK 24 million, relates to 'Environmental improvement measures in agriculture'. The purposes of this allocation include reducing nutrient leaching, increasing the proportion of agricultural production based on organic methods, and conserving biodiversity.

Regarding forests, there is an important item in the form of SEK 20 million for small-scale habitat protection and nature conservation agreements (the whole of which promotes biodiversity).

A special allocation for damage caused by wild animals amounts to SEK 12.5 million. These funds are disbursed according to the general principle that, in the first instance, such damage should be avoided by preventive action. Some of the money is used for damage by totally protected species of mammals and birds (hunting of which is not permitted, even for control purposes). Another allocation, of SEK 24 million, provides compensation for reindeer killed by predators. This money is distributed to the reindeer husbandry districts concerned by the Swedish Sami Parliament. A further SEK 5 million is spent on special inventories of predatory mammals (wolf, wolverine and lynx) in reindeer-herding areas. All of these allocations should be regarded as costs to society which relate to the country's populations of wild mammals and birds.

In the area of fisheries, 1998 will see a substantial increase (SEK 20 million) in resources for fishery conservation measures (see 6.5).

It is very difficult to give an overall figure for support for biodiversity in the framework of Sweden's development cooperation programme. This is because biodiversity forms an integral part of broader projects and programmes, above all in the area of natural resources. The total sums are not fixed either, varying from one year to the next depending on overall Swedish policy priorities. The figures given below are based on the sums actually allocated for 1995/96.

If only projects more or less *directly* concerned with biological diversity are included (gene banks, seed programmes, plant breeding, nature conservation), the total is an estimated SEK 100 million a year (not including the Global Environment Facility). This does not include the broad-

based bilateral natural resources programmes in the agricultural, forestry and marine sectors (apart from those directly concerned with seeds, for example). 'Green' development assistance, with the ultimate aim of promoting the conservation and sustainable use of biodiversity, accounts for an estimated 10–12 per cent of the bilateral aid budget, which in 1997 came to almost SEK 12 billion.

Appendix 1. Development cooperation activities relating to biodiversity

The following is a list of the most important projects and programmes relating to biodiversity funded by the Swedish International Development Cooperation Agency (Sida).

1) Agrobiodiversity

- Support for the Consultative Group on International Agricultural Research, a significant proportion of which goes to projects relating to biodiversity, including plant genetic resources.
- The Community Biodiversity Development and Conservation Programme, a network to support local plant breeding and enhance cooperation between 'modern' international and traditional local plant breeding activities.
- In the SADC region, support for the SADC Plant Genetic Resources Centre and national gene banks.
- Support for improved seed production, within the country programmes for Mozambique and Zambia.
- Survey of sorghum varieties in Zimbabwe.
- Funding for research on weeds in small-scale agricultural systems in Luapula, Zambia.

2) Forestry

- The FAO-based Forests, Trees and People Programme, in which methods for local and sustainable use of tree and forest resources are being developed.
- Support for forest programmes in Laos.
- Development of rapid propagation methods for indigenous tree species of economic significance in Ethiopia.
- Research into the ecology and management of indigenous forests in Zimbabwe.
- Development of improved management systems for dry tropical forests.

3) Marine environment/coastal zone development

- Regional marine research in East Africa, South-East Asia and the Caribbean.
- Cooperation with the International Centre for Living Aquatic Resources (ICLARM) relating to development in marine and coastal areas (fisheries and the coastal environment).
- Support through ICLARM for ReefBase's international work on coral reefs.
- Support through the International Coral Reef Initiative for international activities and knowledge advancement relating to coral reefs and their importance.
- The World Resources Institute's international and knowledge advancement activities relating to coral reefs and their importance.
- Cooperation with the East African Regional Seas Programme of the United Nations Environment Programme: preparatory activities (updating of the Nairobi Convention, inventory of current activities in East Africa, and programme planning to establish a Regional Coordination Unit), together with pilot activities and project support.
- Support through the International Atomic Energy Agency for studies of the distribution and effects of pesticides in marine and coastal areas.

- Marine environment projects through the Asian Development Bank (Coastal and Marine Environmental Management in the South China Sea, phase II: Cambodia, Vietnam and China).
- Research on marine resources: the biology of Inhaca Island, Mozambique.
- Marine research: ecological and physiological studies of coastal marine ecosystems.
- Research into the ecological significance of tropical benthic fauna in mangrove forests.

4) Water resources, aquaculture

- Environmental studies in the Okavango Delta, Botswana.
- Development of small-scale aquaculture at the Asian Institute of Technology.
- Development of aquaculture and water resources management in southern Africa, through ALCOM.

5) Arid/semi-arid regions

- Regional research and education programme in East Africa, including MSc course, focusing on sustainable use of biological diversity in arid/semi-arid regions.
- Research into human–land relationships in semi-arid regions of Tanzania.

6) Biodiversity in general

- Establishment of an information centre at the Instituto Nacional de Biodiversidad (INBio) in Costa Rica.
- Inventories of the flora of Ethiopia.
- Inventory of the flora of Somalia.
- Research on landscape ecology and ecological restoration in central Ethiopia.
- Society for Promotion of Wastelands Development, India.
- International Foundation for Science.

7) Support to NGOs – capacity-building, opinion-forming and policy work

The funding given to the following organizations includes significant components promoting the conservation and sustainable use of biodiversity:

- Genetic Resources Action International (GRAIN) – genetic resources and biotechnology, policy development.
- World Conservation Union (IUCN).
- International Institute for Environment and Development, including 'Hidden Harvest', a project focusing on wild food resources.
- As a joint World Bank-IFPRI-Sida/SAREC project, genetic resources policy research on intellectual property rights relating to genetic material.
- Support to non-governmental environmental organizations through the Swedish Society for the Conservation of Nature.
- World Wide Fund for Nature (WWF).
- Support to non-governmental environmental and development organizations through Future Earth.
- Support to the Centre for Science and Environment, India.

8) Internal policy development work

Since 1992, the following activities relating to policy and strategy issues, relevant to the promotion of biodiversity, have been undertaken or initiated:

- Guidelines on activities relating to biodiversity were adopted in 1994.
- An Action Programme for Sustainable Development was adopted in 1996.

- A broad-based study on food security in eastern and southern Africa was carried out in 1995/96.
- Sida's seas and coastal zones initiative (in preparation), to elaborate (1) a policy/action plan for Sida; (2) guidelines on projects with impacts/potential impacts on sea areas and coastal zones; (3) proposals for tangible activities relating to seas and coastal zones (focusing on eastern and southern Africa and south-east Asia).
- Guidelines on environmentally sound energy assistance were adopted in 1997.
- Guidelines on activities relating to forestry were elaborated in 1997.
- A strategy on trade and the environment began to be prepared in 1997.
- Sida's guidelines on environmental impact assessment are being revised in 1997.
- Guidelines on activities relating to agriculture began to be prepared in 1997.

In addition, in 1998, a strategy for biodiversity activities in the medium term (3–5 years) and an action plan for 1998 and 1999 will be adopted.

SWITZERLAND

4.5.2 Technical cooperation

The natural environment, conservation and the sustainable use of biological diversity benefit from being given priority in all the agreements of technical cooperation signed by Switzerland. The activities in developing countries supported by Switzerland are subject if necessary to environmental impact assessments.

Within its programme of bilateral cooperation, Switzerland, and more particularly SDC, has a portfolio of 26 projects devoted specifically to biological diversity in developing countries, in Latin America as well as in Asia and Africa. These activities particularly concern the conservation of protected zones and of the genetic diversity of cultivated plants and farm animals, as well as programmes for education and public awareness about biological diversity. The projects relating to the conservation of agro-biodiversity are principally developed in collaboration with the institutions of CGIAR (Consultative Group for International Agricultural Research).

Examples of projects of cooperation devoted to biological diversity

- Andes: conservation of various local species of root and tuber crops.
- Dominican Republic: conservation of natural resources through development and implementation of management plans for protected areas.
- Guinea Bissau: implementation of a nature reserve within the framework of a global plan of land use
- Nepal: support for Nepal's efforts to inventory and protect its natural heritage sites. Irian Jaya (Indonesia): conservation of the genetic diversity of sweet potatoes and indigenous knowledge about cultivation.

For its part, FOFEA has developed conservation activities in developing countries and concentrates particularly on the management of tropical forests. Among projects in progress, creation of a vast transboundary reserve between Malaysia and Indonesia (national park) and the elaboration of plans for the sustainable exploitation of forests in Brazil, Bolivia and Panama deserve mention. Furthermore, in 1998 FOFEA will participate in the Terra Capital Fund, which

is a source of venture capital in Latin America to support projects which aim to preserve biological diversity.

Within the scope of agreements rescheduling Bulgaria's debt to Switzerland, an agreement was signed in 1995 for the establishment of a National Eco Trust Fund containing the payments due from Bulgaria to Switzerland to the equivalent of Sfr. 20 million. The purpose of this fund is to prepare and implement projects for the protection of the environment and the conservation of biological diversity.

In the countries of Central and Eastern Europe, by means of SDC and FOFEA, Switzerland supports several projects and programmes devoted to biological diversity. In collaboration with the World Bank, Switzerland supports a series of measures to preserve the biological and cultural diversity of the region of Lake Ohrid, between Albania and Macedonia. Other projects are being carried out in Estonia, Hungary, Bulgaria (see box) and in Russia, where Switzerland supports a vast WWF project covering a considerable area and with the specific aim of preserving virgin forest in Petchora-Ilytch, and ensuring the sustainable exploitation of forests as well as the training of those responsible for the 90 reserves.

SAEFL is involved in most of the Swiss projects of cooperation concerning biological diversity. It offers advice and technical support at the time of formulation and in the evaluation of several of these projects.

Programme of conservation of biological diversity in Bulgaria:

Bulgaria possesses a remarkable diversity of biology and landscape, the result of its geographical situation at the gates of Asia. Recent economic and political changes threaten to destroy the fragile equilibrium of certain ecosystems. The programme being run in collaboration with the Bulgarian Ministry of the Environment, as well as Bulgarian and Swiss environmental. Organisations has surveyed the richest and most fragile regions for which seven projects aiming at targeted land management have been developed. The seven projects Primarily involve mountainous regions, as well as some areas on the plains and the wetlands near the Black Sea.

6. Budgets

At the national level, the implementation of the activities and programmes described in this report are spread over domains and services under state control; it is not easy to provide complete and comparable numbers for the means available to implement the provisions planned by the Convention. The costs of measures taken to ensure the protection of species during the construction of a motorway, for example, are met by the costs of construction and not from the budget of the agency responsible for nature protection. Similarly, as agricultural policy is oriented towards ecology, diverse programmes, such as aid to marginal (mountain) regions to prevent the abandonment of farming there, contribute to maintaining biological diversity in Switzerland; the amount whose final destination is biological diversity is however difficult to estimate.

The budget which SAEFL devotes to biological diversity amounted to Sfr. 37 million in 1996, divided in the following manner: Sfr. 30 million subsidy for cantonal activities and measures, Sfr. 2 million for activities and projects of private organisations, and Sfr. 5 million for projects directly run by SAEFL, such as establishing the inventories. Currently, the budget in relation to the legal tasks assigned to SAEFL is restricted. It is estimated that proper application of the Convention by this agency would cost around Sfr. 70 million annually.

Estimate of budgets directly devoted to biological diversity at national level:

Activity	**Amount** (in Sfr. million per year)
• SAEFL, projects and subsidies for nature and the landscape	37
and projects for biological diversity in the forest (1996)	15
• SFOA, agricultural payments for ecological compensation (1996)	91
• Cantons (estimate for 1993/94)	40
• Nongovernmental organisations (WWF and Pro Natura) (1996)	5.5
• Swiss Landscape Protection Fund (50 million for 10 years)	5

In general, the funding available for the conservation of biological diversity in Switzerland is relatively limited, particularly compared to spending in other domains: spending for the tasks of protecting nature come to about 0.2 per cent of the federal budget, whereas 6.7 per cent go to road construction. Similarly, a study has shown that in 1992, around Sfr. 6 billion were spent on the environment in a broad sense, of which only Sfr. 103 million went to the protection of nature and the landscape, that is 1.7%. At the cantonal level, we note significant disparities, reinforced by the system of subsidies prevalent in Switzerland: the measures taken by the cantons are subsidised by the Confederation, so the less active a canton is the lower the subsidy it receives, and the lower the amount used for conservation of biological diversity will be. Many cantons have limited human resources; certain cantonal services do not employ more than two people, although the implementation of protective measures are a cantonal responsibility.

At the international level, Switzerland has made available a credit line of Sfr. 300 million for the global environment in developing countries, agreed in 1991 for the period 1991-1997, and in addition to the regular amounts of public funding for development. During this period, Sfr. 124 million of this credit were contributed to GEF, which, over the years, has devoted 30 to 40% of its resources to biological diversity. Sfr. 65 million of the same credit have been used to support bilateral projects specifically intented for the conservation of biological diversity (see chapter 4.5.2).

Switzerland is also substantially committed by means of funding intended to reinforce cooperation with Central and Eastern European countries: Sfr. 38.9 million for technical cooperation and Sfr. 133 million for financial cooperation went to the protection of the environment in these countries between 1990 and 1996.

Apart from these additional contributions, the numerous programmes and projects supported by Switzerland by means of regular funding for cooperation with developing and Central and Eastern European countries include an element for promoting conservation and the sustainable use of biological diversity, particularly in forestry or agriculture. For these projects it is however difficult to estimate the amount precisely devoted to biological diversity.

Finally, many projects of conservation and the sustainable use of tropical forests are financed by means of credit lines concerning the economic and commercial policy for international cooperation in development.

Non-governmental organisations are also active in several ways. WWF-Switzerland, for example, devotes about Sfr. 6.4 million each year towards projects which aim at conservation and the sustainable use of biological diversity abroad. Charitable organisations also support a number of projects relating to the sustainable use of natural resources.

Estimate of financial commitments at the international level

Activity	amount (in Sfr. million)
• Credit line global environment (period 1991-97)	
Contribution to GEF (of which 30-40% for biological diversity according to year)	124
Bilateral and multilateral projects specifically devoted to biological diversity	65
• Element for biological diversity in the credit lines for cooperation with Central and Eastern European countries (period 1990-96)	
Technical cooperation in the environment (39 million), part estimated in favour of biological diversity	9
Of the financial cooperation for the environment (133 million), amount estimated to be used for biological diversity	10
• Element for biological diversity in the credit lines concerning measures of economic and commercial policy for international cooperation in development (period 1997-2001)	
Projects on tropical forests	25
Terra capital fund (only in 1998)	5

THE NETHERLAND

Objectives: Development co-operation

Development co-operation policy integrates biodiversity and sustainable nature management objectives in an effort to achieve sustainable development; negative impacts on nature and the environment in developing countries will be avoided. Biodiversity is an important criterion in the environmental screening procedure, and an environmental impact assessment is required for activities which take place in ecologically sensitive areas. Where possible biodiversity and sustainable nature management objectives will be incorporated in projects designed to alleviate poverty and in economic development programmes. Special attention is paid to the protection of natural ecosystems, forests, species habitats and traditional agricultural breeds and cultivars, and so great value is attached to areas of origin of agricultural crop varieties. The Government has drawn up a statement on tropical rain forests in which the protection and sustainable management of these forests are the main objectives.

The Directorate-General of Development Co-operation has drawn up Sectoral Policy Papers on biodiversity and on forests and forestry which fill in the details of its policy concerning biodiversity, tropical rainforests, wetlands, marine ecosystems and coastal zones, savannahs, steppes and mountain ecosystems.

Environmental assessment

The Netherlands considers reviewing the impacts on biodiversity resulting from the activities she funds to be of great importance. The use of environmental impact assessment can prevent or reduce negative impacts and help to ensure that expenditure also benefits biodiversity. Such assessments are made for Dutch development co-operation projects, and biodiversity is addressed as a specific issue during these reviews. A study will be made of how the impacts on biodiversity of other forms of Dutch expenditure abroad can be assessed.

Budget

As the biodiversity policy of The Netherlands consists of the Strategic Action Plan for Biodiversity and the various related policy areas mentioned in this report, it is difficult to accurately determine the total budgets involved. Furthermore, the Government contributes substantially to international policies, programmes and projects in the field of biodiversity through bilateral and multilateral co-operation.

Budget lines for nature, environment and water management

There are numerous government budgets relevant to biodiversity (summarized below): some are geared towards creating suitable conditions for encouraging biodiversity at various scales, addressing among other aspects disturbance, emissions and loss of habitat; others are earmarked for specific incentives.

Examples of Government budgets for 1996 relevant to biodiversity at the national level.

themes	subjects	total amount
land acquisition	rural development projects; nature conservation; outdoor recreation; forestry and landscaping	NLG 178 million
spatial planning and land development	integrated rural development projects; water management and measures to tackle depletion of groundwater reserves; Randstad Green Structure; habitat (re-)creation projects and planting woodlands on farmland	NLG 379 million
nature management	management of large and vulnerable areas by the State Forest Service, the Society for the Preservation of Nature in The Netherlands, and the Provincial Landscape Trusts (the private organizations receive more than 40% of the budget)	NLG 282 million
other nature conservation	for nature conservation organizations which do not own land themselves; nature conservation and environmental education projects; international nature conservation	NLG 62 million
environmental technology and infrastructure	integrated area-based environmental policy; environmental technology and provision of expertise; support for non-governmental organizations; fiscal measures related to green investments	NLG 55 million
environmental quality policy	soil protection and remediation	NLG 460 million
life-cycle management and protection	corporate environmental care systems, including standardization and certification; environmental reporting and auditing	NLG 45 million
environmental research	integration of economics and ecology	NLG 110 million
water quality	the remediation of polluted underwater substrates	NLG 132 million
others	restoration of hydrological systems; habitat creation along the main rivers	NLG 87 million

Green financial services

Since the beginning of 1995, interest and dividend payments to individuals from environment-friendly financial investments are no longer taxed in The Netherlands. The capital must be invested in specific, approved 'green projects' via 'green funds' recognized by the Government. An important condition is that the projects should be profitable in their own right. For nature conservation projects the financial returns may include money raised by the members of nature conservation organizations. To be eligible, projects must be for environmental protection, sustainable energy, the development and conservation of forests, nature and landscape, and the promotion of agricultural products.

The market for 'green financial services' consist of:

green investments	(NLG 1 billion out of total investments of NLG 81 billion);
green savings	(NLG 1.4 billion out of the total market for savings of NLG 213 billion);
green insurance	(NLG 100 million out of a total of NLG 770 billion); and
specific forest funds	(extent unknown, but total holdings in plantations are estimated to be in the order of NLG 550 million).

In most of these products 'green' is interpreted very widely indeed; the real contribution towards the environment, and more specifically to the conservation and sustainable use of biodiversity, is not always clear. The Government sees a role here for organizations such as the Advertizing Standards Commission and consumers' organizations in promoting the real benefits for the natural environment to be gained through these funds.

International co-operation

Dutch expenditure on international biodiversity is channelled through a number of different programmes. The Directorate-General for Development Co-operation of the Ministry of Foreign Affairs has reserved NLG 150 million for policy development and forest projects, of which NLG 50 million is reserved for tropical rain forests. Money has been explicitly earmarked for other ecosystems as well - wetlands in particular - and for general aspects of biodiversity, including the development of institutions to carry policies through. In addition, attention is also paid to the conservation and sustainable use of biodiversity issues within regular development co-operation activities (but this is not quantified).

The Ministry of Agriculture, Nature Management and Fisheries' budget for international nature management (including international contributions) is NLG 4.5 million annually. In 1996 an additional NLG 4 million will be made available for nature management in Central and Eastern Europe. This budget will be doubled in later years: in 1997 NLG 6.6 million, and from 1998 on NLG 8 million per annum. This budget is for biodiversity in general, European nature, forests, wetlands, migratory birds, and small innovative nature conservation projects. The Ministry of Agriculture, Nature Management and Fisheries' budget for international nature management (including international contributions) is NLG 4.5 million annually.

Other ministries have funds available for integrated water management, global environmental management (including the elaboration and implementation of Agenda 21), environmental

management in Western and Eastern Europe, and for the development of international policies, including supporting research.

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6.2.3 Darwin Initiative

6.2.3.1 The Darwin Initiative was part of the UK's commitment to the Earth Summit in 1992. This £3m a year grant programme aims to fund UK biodiversity experts in projects to help developing countries meet their obligations under the Biodiversity Convention. Since 1993 over 140 projects involving over 70 UK institutions and over 70 developing countries have been funded. The objectives of the Initiative look for British biodiversity expertise working in collaboration with partners from countries rich in biodiversity but poor in resources. The projects must have a real lasting impact on the capacity of the developing country and wherever possible funding will be used as a catalyst to lever in additional funding.

6.2.3.2 Some of the projects have involved internationally renowned centres such as The Natural History Museum and the Royal Botanic Gardens at Kew and Edinburgh as well as many of the universities. Others have used the skills of such organisations as the Marine Conservation Society and the London Ecology Unit to run projects in such diverse places as coral reefs off the coast of Sri Lanka and the city of Santiago in Chile. The partners come from universities, research institutes, government departments, local and regional authorities and national parks authorities. Emphasis is given to the understanding of local peoples' needs and involvement of local people in the work.

6.2.4 International Aid Programme

The Department for International Development (DFID) supports projects which contribute to sustainable development in poorer countries. The environment has a high priority and activities are guided by its own biodiversity strategy. DFID supports the objectives of the Convention for Biological Diversity, not only through its own bilateral activities but also through international fora.

7.3 Summary analysis of international technical and financial cooperation given relevant to implementation of the strategies and action plans

A recently issued Paper on International Development sets out the UK Government's aims for achieving sustainable development. The most important goal is to eliminate poverty, ensuring that the poorest people in the world benefit as we move towards a new global society. With this goal in mind, the Government is helping developing countries, often rich in species and habitats but lacking in other resources, to manage and benefit from their biodiversity. DFID plans to help them conserve such natural resources and gain income from them, which offers benefits both for the alleviation of poverty and the safeguarding of biodiversity.

Since the Rio Earth Summit in 1992, DFID has committed £175 million to bilateral projects which assist over 40 countries with the conservation or sustainable use of their biological diversity.

The UK Government has also committed £130 million to date, through the Global Environment Facility, to support projects to help developing countries to meet their obligations under the

Biodiversity and Climate Change Conventions. About 40% of GEF funding supports biodiversity projects. International donors recently agreed a target of US$2.75 billion for the second replenishment of the GEF.

The Darwin Initiative grant programme started in 1993/94 at a cost of £1 million per year, increasing to £2 million in 1994/95. From 1995/1996 it has run at £3 million per year.

The FCO has an annual budget for environmental projects overseas. The total budget, over three years from 1995, was £1,130,000. Over half this amount has been used to fund biodiversity-related projects in the United Kingdom's Dependent Territories and in developing countries. Details of projects funded in the Dependent Territories are given in the Annex to this report. Examples of projects funded in developing countries are in Madagascar on a Alaotra wetland conservation project, the conservation and sustainable management of endemic plant species in Yemen and biodiversity conservation in Rio Platano Biosphere Reserve (including marine turtles) in Honduras.
