

# Opportunities for Benefiting Biodiversity Conservation



## The Energy & Biodiversity Initiative

Oil and gas exploration and production in ecosystems of high biodiversity value pose both risks and opportunities for energy companies. In terms of risks, operations can have negative primary and secondary impacts on ecosystems and the quality of air, water and soil. Avoiding, minimizing and mitigating these impacts should be the priority of project managers and companies.

**Further information on primary and secondary impacts and responses can be found in [Good Practice in the Prevention and Mitigation of Primary and Secondary Biodiversity Impacts](#).**

However, in an increasingly inter-connected global economy, pressure from governments, communities, shareholders and non-governmental organizations (NGOs) is building for companies to go beyond mitigating negative impacts and to take advantage of opportunities to benefit biodiversity conservation in and around project sites and in the countries and regions where they operate. Such activities are particularly important in countries where capacity and resources for protecting the environment are scarce or are not a priority because of more immediate social and economic needs.

Companies can make investments in biodiversity conservation at both a project level and a company level. At the project level, such activities are likely to be strongly driven by the results of a project Environmental and Social Impact Assessment (ESIA) and any identified value associated with actions that go beyond mitigation to benefit valuable and threatened ecological resources. At the company level, opportunities to benefit biodiversity conservation can be a key part of an overall company environmental and social responsibility strategy that recognizes the strong role of biodiversity conservation in sustainable development and the business value of a positive public reputation on biodiversity issues.

**Further information on ESIA's can be found in [Integrating Biodiversity into Environmental and Social Impact Assessment Processes](#).**

By proactively capitalizing on opportunities to improve the state of conservation in ecosystems with high biodiversity value, companies can ideally leave an area's biodiversity, or the local capacity to conserve it, in better condition than before oil or gas activity began. Such activities are distinct from offsets, which are designed to reduce and compensate for the negative impacts of a project (see Box 1). While activities designed to benefit biodiversity may be similar to those intended to meet no net loss goals, they often encompass a broader geographic area or timeframe. Investment in an opportunity to benefit biodiversity assumes that short-term loss of or damage to biodiversity as a result of oil and gas production can lead to a long-term net benefit to both the economy and the environment through the reinvestment of economic rents from the oil or gas activities, both from government revenue and company donations, into conservation beyond the life of a project.

In some countries, the concept of promoting benefits to biodiversity has become standard, and sometimes required, practice. In Western Australia, for example, the government approval process for new natural resource development projects requires developers to contribute to "net conservation benefits" that go beyond typical project-specific mitigation measures. The policy builds on the idea that, although impacts from a project will most likely be felt at a local level, the conservation values associated with the impacted resources are often more generalized and widespread. Consequently, addressing these broader values requires a different approach than the impact management strategies used at the development site.

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## 1. ASSESSING OPPORTUNITIES FOR BENEFITING BIODIVERSITY CONSERVATION

Technologies and techniques for mitigating many of the primary impacts of oil or gas development are well known throughout the energy industry. Criteria for selecting the best opportunities for benefiting biodiversity conservation, however, are neither the norm nor subject to the same standard decision-making procedures as prevention and mitigation of impacts. The objectives of a conservation benefits strategy need to consider many factors, some of which are discussed below. Although this section addresses each factor separately, they are interactive and should not be considered in isolation.

### 1.1 Local, regional and national conservation priorities

Companies often find themselves caught among local communities, national governments and other parties

such as environmental NGOs that have different, often competing and sometimes contradictory visions for how land and natural resources in and around a proposed project area should be used. As such, determination of the most promising opportunities for benefiting biodiversity in a given area or country must take into account existing or planned local, regional and national conservation strategies and priorities and the interests of relevant stakeholders.

Countries that have signed and ratified the 1992 U.N. Convention on Biological Diversity (CBD) are required to develop a National Biodiversity Strategy and Action Plan (NBSAP) to identify how they will achieve the biodiversity goals set forth in the CBD. Review of country-specific NBSAPs can help a company identify both priority areas for host countries and what opportunities exist to help achieve national biodiversity goals. Moreover, NBSAPs can identify important

### BOX 1. OFFSETS VS. OPPORTUNITIES

It is important to distinguish the idea of opportunities to benefit biodiversity from that of conservation offsets. An offset is typically a measure taken to reduce the negative impacts of a project, both primary and secondary, and to help fully mitigate impacts at a project site. The objective of an offset is that, by the end of a project, the status of biodiversity at a particular site is comparatively the same as before the project began. Use of offsets for this purpose should be the minimum expected standard by which all companies operate. In this context, offsets fall under the traditional definition of mitigation, which includes those measures and actions designed to avoid, minimize, reduce, rectify and compensate for negative impacts. If, after all measures are taken to mitigate impacts, there will still be a net loss of biodiversity, compensation in the form of offsets may be used to bridge the gap.

Legal requirements for offsets and compensation vary from country to country. However, some sites, such as Ramsar sites and areas covered by the European Community's Natura 2000, require companies to implement offset and compensation measures if impacts occur. Companies should, at a minimum, ensure compliance with all national legislation and requirements under relevant international conventions.

Compensation measures to meet mitigation commitments can include, but are not limited to, placing property into protected status through legal instruments such as conservation easements, buying land for new protected areas, enhancing or restoring degraded land, and supporting research in, or greater institutional control or management of, protected areas. Placing land into protected status adds biodiversity "value" by reducing its vulnerability to threat, assuming effective institutional controls are in place. This helps to achieve offset or compensation goals because these measures improve the long-term sustainability of the biodiversity resource.

In 1994 Statoil began construction on the Europipe natural gas pipeline from Norway to Germany. The pipeline includes a 385-mile (619-km) offshore segment from Norway that comes ashore in the Lower Saxony Waddensea National Park and continues for 30 miles (48 km). Finding an acceptable landfall for the pipeline to come ashore in the park was a major challenge. Planning of the pipeline, in consultation with German authorities, began nearly a decade before construction. A total of ten alternative landfall locations, and 12 variations of those, were developed for review by the authorities. After a lengthy planning process, a route that includes a 1.6-mile (2.6-km) tunnel under the tidal flats was chosen for crossing the park. The route was expected to have temporary, but still significant impacts on the natural environment. To offset the effects, Statoil, in keeping with German law, constructed a 42-acre (17-hectare) biotope with ponds and sand dunes close to the pipeline metering station, on land that was previously an extensively used agricultural field with a relatively poor flora and fauna. The area has since developed into a habitat for a number of rare and threatened species of plants, insects, amphibians and birds. The area has since received official protected status.

national stakeholders whom companies could work with in designing and implementing specific biodiversity conservation projects.



Further information on the U.N. Convention on Biological Diversity can be found in **International Conventions.**

In some cases, a regional land-use planning exercise may have taken place or be underway to identify stakeholders and their interests and priorities and determine ways to factor those interests into regional long-term development plans. Information from such exercises can be invaluable for determining the best use of resources designated for conservation benefits. If a company can participate in or even help to initiate such a process, the experience may help to defuse potential tensions, increase trust and credibility among stakeholders and improve the ability of managers to make sound investment decisions. There are risks to such a process, however, including a long lead-time and the potential for lack of interest or even opposition from governments or other stakeholders. Such factors should be included in a company's risk management decisions.



Further information on regional planning processes can be found in **Framework for Integrating Biodiversity into the Site Selection Process.**

## 1.2 Risks and benefits to the company

There are a number of different options for investments that can benefit biodiversity conservation in a given area. Each option will carry unique risks and benefits to each company. When deciding which type of option to pursue, project managers should assess the potential strategic value to the company of a particular choice, in terms of local stakeholder relations, potential effects on project performance and execution, and broader public reputation. These benefits then need to be weighed against the possible risks of a specific choice, such as the potential for conflict, difficulties in measuring effectiveness, local capacity to manage funds or project activities, or likelihood of efficient use of resources. Furthermore, in order to be effective, an investment in biodiversity conservation should address a real conservation need and will typically need to be long-term. Because this may increase a project's costs and exposure to risks, choices about opportunities should

be factored in up front in analyses on both financial and reputational risks and benefits. It can be very costly to reputation to stop a project after it has been started, if it cannot be sustained.

## 1.3 Availability of local partners

The most appropriate long-term benefits for biodiversity can be best identified by working with local partners who know the status of local or national ecosystems and can point to what measures would effectively promote conservation. Potential partners include, but are not limited to, government agencies, local communities, conservation NGOs and other private sector actors, such as timber concessionaires. Local, national or international NGOs can serve as partners in bringing various stakeholders together in a consultative process. Many NGOs have substantial experience working with other local stakeholders, such as communities, and may have extensive knowledge of an area's biodiversity and what actions are needed to conserve it.

Including relevant stakeholders in the decision-making process is critical for long-term success of conservation actions. For example, a government protected areas agency may want support to increase its capacity to manage a national park, but a nearby community that is making incursions into the park to support their livelihood may want economic development assistance. Instead of viewing such a situation as "zero-sum," companies can work with stakeholders to find truly sustainable solutions that increase government capacity to manage the protected area and address the development concerns of the community.

## 1.4 Biodiversity richness of an area

The status of species in an area, including endemic and threatened or endangered species, is a central issue in determining what actions may be best for benefiting biodiversity conservation. Baseline studies and analysis of secondary information to determine the status of an area's biodiversity are crucial in this regard and should be included in a company's ESIA process. At a project level, if the area in or adjacent to a project site is determined to contain valuable biodiversity, local measures, such as protection and capacity-building with local stakeholders, may be most appropriate. If a project site does not have particularly high biodiversity value, but there are other areas of the country or high-profile species that are important and threatened, a company could still consider making contributions to protect those ecosystems or species through support of local partners.

Both efforts contribute to sound biodiversity action and can improve a company's public image within the country and add value to its reputation.

**i** Further information on where to find data on biodiversity in an area can be found in **Online Biodiversity Information Sources**.

### 1.5 Degree of threat to biodiversity

The overall degree of threat to biodiversity in an area should also be considered when assessing opportunities to benefit conservation. Threats to biodiversity can originate from the primary impacts of a project, but, often, secondary impacts (the unintended consequences of a project such as in-migration or illegal logging) are the most destructive long-term impacts to biodiversity from project activity. In addition, an area's biodiversity might already be under severe threat from other economic activities or social trends. In assessing the level of threat to a particular area, the following factors should be considered:

- Potential primary impacts of a project site, such as land-clearing, waste discharges, etc.
- The economic importance of the site and the region.
- Present and projected economic activities, both legal and illegal (for example poaching or illegal logging).
- Population pressures.
- The opportunity cost of protecting areas identified as having high biodiversity value.
- The land tenure of local communities.

**i** Further information on avoiding and managing secondary impacts can be found in **Negative Secondary Impacts from Oil and Gas Development**.

### 1.6 Impact or scope of project

One of the key elements in developing a strategy for benefiting biodiversity is the need to balance the nature and extent of expected local impacts with the intended conservation benefit and geographic focus of the strategy. Other factors being equal, a project with extensive

adverse impacts, even if they are fully mitigated, will generate a greater societal expectation for conservation benefits than a project causing lesser impacts. The magnitude of the impacts is determined through the ESIA process, which will weigh the expected geographic distribution and extent of impacts with the biodiversity value and features of the area impacted. These factors, along with the degree of protection afforded comparable biodiversity resources, should influence the geographic focus of the conservation benefit strategy. In areas where the risk to biodiversity is high, collection of comprehensive baseline data on biodiversity indicators followed by regular monitoring and evaluation of the project site and surrounding area are essential to weigh the impacts and opportunities for conservation

### 1.7 Status of protected areas system

The process for deciding what are the best opportunities for a company to benefit biodiversity should consider the legal framework and current status of a country's protected areas system. Some countries, such as Costa Rica or South Africa, have fairly well-developed protected areas systems whose needs would differ from those of a country with a poorly developed or non-existent system. In countries where the protected areas system is poorly developed, and the protected areas are simply "paper parks" with little real management capacity, consideration can be given to supporting increased capacity through the development of better park infrastructure and more training and resources to attract and maintain qualified staff.

In those relatively few countries with no legal framework for protected areas, other opportunities can be explored, such as working with communities living in or around ecosystems identified as having high biodiversity value to promote conservation, or supporting training programs in improved resource management. Engaging stakeholders, such as government agencies, communities and NGOs, with interest in a particular area is the best way to determine what types of support would be most effective.

### 1.8 Status of technical and management capacity

Analysis of technical and management capacity at the local and national level is important in assessing opportunities for benefiting biodiversity. A region or country may have many laws and government agencies that address the issue of biodiversity protection, but

little or no technical capacity, such as biologists or resource management specialists, to enable such laws and agencies to be effective. Conversely, technical capacity may exist to manage biodiversity issues, but funds might be inadequate to attract and keep the type of personnel needed. In the former, technical capacity building may be the better opportunity for a company to benefit biodiversity, whereas in the latter, financial support for better utilization of existing capacity, in the form of salaries or funds for equipment or infrastructure, may be a better option. To avoid creating conflicts of interest, funds earmarked for public employee salaries can be disbursed through endowments or trust funds managed by entities other than the company making the contribution. While capacity-building measures, such as technical training, may not deliver immediate, easily measurable results they can still be significant for long-term conservation. Any local or national system designed to address biodiversity issues will ultimately need qualified staff to collect baseline data, monitor changes over time, and provide analysis and recommendations.

## 1.9 Political climate

In some countries, the issue of biodiversity conservation may be politically contentious. At the local level, communities may view biodiversity conservation measures as efforts to deprive them of access to traditional or ancestral lands and the resources they provide. Failure to take into account community considerations could lead to conflict and ultimately ineffective conservation efforts. National governments opposed to biodiversity conservation measures or more interested in development issues may be more receptive to support for sustainable development programs or technical capacity-building measures. In these situations, companies can work with stakeholders to devise economic development options that are more compatible with biodiversity conservation, such as better land-use planning.

Conversely, a company may operate in a country where conservation is a priority for governments and communities. In such cases, leveraging stakeholder support can be valuable for optimizing opportunities. Support from indigenous communities for the legal demarcation and protection of their traditional lands in countries such as Brazil has led to the protection of significant areas from more destructive land-use practices, such as logging and colonization.

## 2. EXAMPLES OF OPPORTUNITIES TO BENEFIT BIODIVERSITY CONSERVATION

There are many ways that a company can take action to benefit biodiversity near a project or at the regional or national level, based on the most outstanding needs and problems related to biodiversity conservation in the area (see Table 1). The following are types of opportunities that a company might take advantage of, including examples of cases where companies took proactive measures to benefit biodiversity as a result of implementation of their oil and gas development projects. The opportunities presented here are by no means an exhaustive list, as the local and national conditions and criteria set forth above will ultimately determine which opportunities are best for a company and biodiversity conservation.

### 2.1 Strengthening protected areas

Protected areas are critical tools for effective long-term biodiversity conservation. While protected areas cannot on their own ensure conservation, in combination with improved resource management and sustainable economic development activities, they can form the centerpiece of a country's biodiversity conservation strategy. Companies interested in benefiting biodiversity conservation by supporting protected areas have a number of options to consider including:

#### 2.1.1 Support for existing protected areas

Many national parks and other protected areas, particularly in poorer countries, lack sufficient resources to be managed effectively. Establishing a trust fund or making contributions to an existing fund for park management can be the most effective way to guarantee a long-term revenue source for a protected area. In countries where the legal framework does not allow for a trust fund mechanism, direct annual payments or lump sums can be used, as long as there are adequate controls for accounting and disbursement of funds. Support for capacity-building in fund management should be included to ensure resources are effectively managed over the long term. Strategic in-kind contributions, such as patrol vehicles and infrastructure for better management (observation posts, patrol routes, etc.) can also be effective in increasing protected area management capacity. Stakeholder consultation and partnerships will be critical in determining the resources needed for effective protected area management and how those resources are used.

In Bolivia, Shell International worked with the Foundation for Friends of Nature, the Foundation for Friends of the Noel Kempff Natural History Museum, the Wildlife Conservation Society, the Missouri Botanical Garden and Enron to establish The Chiquitano Forest Conservation Foundation (FCBC in Spanish) in September 1999. A private non-profit organization with independent administration, the FCBC was established to support biodiversity conservation efforts in the eastern part of the Chiquitania region of Bolivia and prevent environmental impacts from regional development and large infrastructure projects in the region. Private voluntary contributions form the financial basis of the FCBC and are distributed to the region's stakeholders at the rate of US\$1 million per year. Over the course of 15 years, another US\$1 million per year will be placed in a trustee fund that guarantees the sustainability of the FCBC after active contributions have ended.

### 2.1.2 Support for the creation of protected areas

Much of the world's most valuable biodiversity is not under any type of formal protection. If unprotected ecosystems with high biodiversity value are identified near a project site, a company can consider working with stakeholders to add new areas to the host country's protected areas system. Moreover, to enable a new area to be effectively managed, a company should work with stakeholders to ensure that adequate resources are available for effective long-term management.

In 1996, Mobil acquired an exploratory oil concession in the Tambopata Candamo Reserve Zone (TCRZ) in Peru, a 1.5 million hectare rain forest ecosystem that lies between the Bolivian border and Peru's famous Manu National Park. The Tambopata region holds some of the most pristine and unspoiled ecosystems of Amazonia and the highest single site species diversity records for woody plants, birds, butterflies, mammals and dragonflies. In 1998, Mobil decided to end exploration activities and leave the area, but before exiting, the company worked with the Peruvian Government and Conservation International to add the TCRZ to the existing Bahuaja-Sonene National Park, doubling the park's size to 1.1 million hectares. Returning the concession also led to the creation of the Tambopata National Reserve and adjacent buffer zones.

In June 1999, BP Petronas Acetyls, a joint venture between BP and Petronas, partnered with the Malaysian Department of Fisheries and the World Wide Fund for Nature Malaysia to create the Ma'Daerah Turtle Sanctuary Center in the state of Terengganu, Malaysia. BP has three petrochemical plants in Terengganu and there are significant oil and gas reserves off the east coast of the state. Terengganu is home to about 70 percent of Malaysia's turtles and the sanctuary is an important nesting habitat for three species of marine turtles and the painted terrapin. It is the first turtle sanctuary to be funded by the private sector and the second largest sanctuary in Malaysia. The center's main goals are to improve management of the habitat, improve community

**TABLE 1. OPTIONS FOR BENEFITING BIODIVERSITY CONSERVATION**

MOST OUTSTANDING BIODIVERSITY NEEDS/CHALLENGES	POSSIBLE OPPORTUNITIES FOR BENEFITING BIODIVERSITY CONSERVATION
Lack of resources/structure to manage protected areas	<ul style="list-style-type: none"> <li>• Trust fund, financial contribution, in-kind support to protected areas management</li> <li>• Support for creation of a new protected area</li> </ul>
Important, threatened and unprotected ecosystems or species	<ul style="list-style-type: none"> <li>• Manage concession as protected area</li> <li>• Sponsor campaign to protect ecosystem by using charismatic, endangered flagship species</li> <li>• Support conservation easements</li> </ul>
Lack of government/scientific capacity to study and manage biodiversity	<ul style="list-style-type: none"> <li>• Support for scientific research and analysis</li> <li>• Support for technical capacity-building and training</li> <li>• Support for managerial capacity-building in government agencies</li> </ul>
Lack of public awareness of or involvement in conservation	<ul style="list-style-type: none"> <li>• Support for environmental education and awareness building</li> <li>• Support for integrated conservation and development</li> </ul>

awareness, support scientific research and monitoring, and undertake controlled ecotourism projects.

### 2.1.3 Manage concession as a protected area

Production activities often require only relatively small tracts of land within a larger concession or project area. If a concession contains ecosystems determined to have high biodiversity value, the portion not needed for operations can be managed as a formal or *de facto* protected area. The company can assume direct management responsibilities, or have other entities, such as government agencies, manage the area. Where communities and other civil society entities, such as NGOs, are present, they should be included in the design and implementation of a management plan. In some cases, biodiversity inside the boundaries of a company's concession may be healthier than that outside the boundaries, because of the company's ability to prevent human incursion and activities that lead to environmental degradation.

Caltex Pacific Indonesia has been extracting oil from the Zamrud Field, in eastern Sumatra, Indonesia, since 1982. The concession is in an area of lowland coastal virgin rainforest and contains two pristine lakes. When the company discovered oil in the area in 1975, it decided to manage the concession as a conservation area, a decision supported by the Government of Indonesia, which officially designated the area as a national conservation area. This decision had significant consequences for project design and implementation, leading to the development of minimal impact seismic surveying, zero discharge policies and an extensive monitoring and assessment program.

### 2.2 Campaigns to save endangered species

Efforts to protect flagship species, such as tigers or orangutans, can be the key to protecting an entire ecosystem. Companies can identify charismatic and endangered species located near a project site or in another part of the country or world, and contribute to efforts to protect it. It is important that such efforts focus on *in situ* conservation, protecting not only individuals of the species, but the critical habitats upon which they rely for survival. This approach has the dual conservation benefit of not only protecting a specific species, but also all the other biodiversity found in its habitat. Moreover, companies can often use species-specific programs to build their public reputations, such as ExxonMobil has done with its "Save the Tiger Fund," an effort to protect Asia's endangered tiger populations.

BP in Spain is supporting projects to develop and maintain a permanent refuge for the Iberian lynx, the world's most endangered wild cat species. The lynx, which once roamed throughout the Iberian Peninsula, is now extinct in Portugal and only 150 to 200 individuals remain in southern Spain. The principal threats to the cat are disappearance of its main prey, the European rabbit, and fragmentation and destruction of its habitat. BP is working with the Global Nature Fund, with advice from the World Wide Fund for Nature, to support the needs of the lynx and restore lynx habitat in southwestern Spain through financial contributions and public education and awareness campaigns that include sales promotions and point-of-purchase materials such as posters and displays. The first habitat project of the campaign is the adaptation of La Finca del Gato, an area near Doñana National Park, into a protected lynx reserve. In addition, a Global Nature Fund project is working to re-establish the depleted European rabbit population, create new water sources for both lynx and rabbit, and restore the habitat essential for continued lynx survival.

### 2.3 Support for scientific research and analysis

Many countries lack the national and local expertise needed to effectively gather data for assessing, monitoring and protecting biodiversity. Companies can make significant contributions to a country's scientific capacity to manage biodiversity by supporting research and training in biodiversity-related fields. Inclusion of partners, such as NGOs and universities, in the ESIA process, baseline data collection and monitoring can often add significantly to local research and analytical capacity. Support for training and capacity-building have the additional advantage of often being viewed as "apolitical," and could be an attractive option in countries where the issue of biodiversity conservation may be politically sensitive.

Shell Prospecting and Development (Peru) contributed both money and resources to a comprehensive baseline biological analysis of a previously unexplored area of primary tropical forest at its Camisea natural gas project in the Peruvian Amazon. Before ending its involvement with the project in 1998, Shell contracted the Smithsonian Institution's Monitoring and Assessment of Biodiversity Program to do a biodiversity assessment of the region, in order to predict potential impacts of development and create a baseline of information to use in long-term monitoring. The project involved more than 100 Peruvian and international scientists studying species and ecological functions, including

aquatic systems, vegetation, invertebrates, amphibians and reptiles, birds and mammals. The studies revealed a tremendous diversity of species, and a number of plants and animals that were previously unrecorded.

ChevronTexaco provided accommodation and an office to whale researchers on their Lombo East platform, off the coast of Angola. A team from the Whale Unit of the Mammal Research Institute at the University of Pretoria, South Africa, used the platform in 1998 as a base to study the migration and activities of humpback whales.

Statoil, in cooperation with the Norwegian Institute of Marine Research (IMR), has supported the study of reef-building coldwater corals off the coast of Norway. The partnership has led to the identification and mapping of a number of coral reefs in the cold waters off the Norwegian coast. Documentation of damage to several reefs from trawling led to the protection of one the largest coral reefs in Norway (the Sula reef) against trawling in 1998. An inshore coral reef in the Trondheim fjord was preliminarily protected as the first Norwegian marine nature reserve in 2000. Statoil surveyed the area in cooperation with IMR to identify a possible pipeline corridor, leading to the modification of proposed pipeline routes.

Shell Gabon is working with the Smithsonian Institution's Monitoring and Assessment of Biodiversity Program to improve knowledge and management of biodiversity within the Gamba Complex in Gabon. The partnership includes biodiversity research, assessment and monitoring; promotion of links among researchers, conservation scientists and resource developers in Gabon; technical training to increase in-country capacity for continued biodiversity assessments; broad dissemination of scientific information generated from the biodiversity assessments; and the development of partnerships for conservation and sustainable development among local stakeholders, scientists and industry.

## 2.4 Support for environmental education and awareness building

Lack of public awareness of biodiversity and its importance can be a significant impediment to successful long-term conservation. In areas where knowledge of biodiversity conservation issues is poor, support for public education and awareness campaigns can produce understanding and support among populations that may have previously been hostile or indifferent to the issue. Environmental education and awareness programs also

have the advantage of being scalable to the level needed, from specific communities living near areas of high biodiversity value, to nationwide campaigns to promote greater support for conservation.

In April 2001, BP sponsored an Environmental Awareness Week to raise awareness among young people in Azerbaijan. Implemented in partnership with several local environmental organizations, the week aimed to highlight current international environmental problems and encouraged everyone, regardless of age, to take more responsibility for environmental challenges. Classes covered the history and impact of oil production in Azerbaijan, current local environmental conditions and the latest technologies used for the protection of the environment. A number of leading Azerbaijani environmental scientists from the Caspian Environmental Laboratory, which is now operated by BP, taught classes and took children on field excursions.

Shell Bangladesh Exploration and Development BV has supported the Center for Natural Resource Studies, a local NGO, in efforts to conserve the sea turtle population in Bangladesh through participatory activities involving local villagers, schools and relevant governmental agencies and non-governmental organizations.

## 2.5 Sharing of information on biodiversity

Private sector companies, particularly multinational corporations, hold enormous amounts of biodiversity data within their archives – data that could be valuable for the wider scientific and biodiversity research community. Much of this data is generated during the preparation of ESIA's. Biodiversity studies are frequently undertaken to support ESIA's or other environmental activities and biodiversity monitoring often continues throughout the lifecycle of a project. While some of this information may be confidential, much of it could be shared with other parties. Currently, there are no widely used mechanisms to make these biodiversity data accessible, even at the most basic level. Making this information available and accessible locally, nationally or even internationally can greatly contribute to existing and future efforts to understand and conserve biodiversity.

The United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), in collaboration with BP, Rio Tinto and Shell, has developed the ECOiSHARE initiative to provide open access to biodiversity and environmental data gathered and held by contributing multinational partners. During Phase I of the project, which began in early 2001, each of the three



corporate ECOiSHARE partners provided a selection of company Environmental Impact Assessments for an initial analysis that led to the development of a simple access database to store biodiversity information and development of a web-based interface for accessing the database. In subsequent phases of the project, the existing work will be refined and additional multinational partners will be sought to contribute to the database.

## 2.6 Support for capacity-building in government agencies

In some cases, government agencies may lack the governance capacity to effectively oversee and implement national biodiversity action plans. Companies can support skill sharing, technology transfer, training and education programs to increase the ability of government representatives to design and implement environmental policies and legislation that support national conservation priorities.

Fauna & Flora International (FFI) has been working with the governments of several countries in the Caspian region, including Azerbaijan, Iran, Kazakhstan and Russia, to develop their National Biodiversity Strategies and Action Plans (NBSAPs), as required by the Convention on Biological Diversity. BP and Shell have provided financial support to this process. In addition, the companies are working with the Caspian Environmental Programme in Baku, Azerbaijan, and FFI to support the establishment of a Caspian Biodiversity Strategic and Policy Unit to plan for the sustainable development of the shared resources of the Caspian. This body will help develop a Biodiversity Protocol to the Caspian Sea Convention and ensure that activities at the Caspian regional level are in compliance with the international obligations such as NBSAPs and that their identified priorities are compatible with Caspian-wide priorities.

## 2.7 Support for conservation easements

Many governments in the developing world have an abundance of forests, but few resources to meet the needs of their populations. As a result, large swaths of forest, many which have high biodiversity value, have been concessioned off to logging or agricultural companies at very low prices, often only a few dollars per hectare. Here, a company can purchase land or the rights to a forest concession and provide funding to compensate the government. The purchased land or concession can then be managed to conserve biodiversity in cooperation with local communities, conservation organizations

and other relevant stakeholders. This option would be particularly effective if land or concession rights adjacent to or in existing protected or sustainably managed areas were purchased, as they would create additional areas to protect biodiversity.

In 2001, Shell pledged US\$225,000 to The Nature Conservancy to support the hiring of a new Land Conservation Representative to identify and secure properties and easements on ecologically important lands on the Alberta Rocky Mountain Front in Canada. In 2002, after the first full year of work, the new staff person had completed land conservation deals worth more than US\$2 million.

## 2.8 Support for integrated conservation and development

The presence of an industrial project in a poor, inaccessible area often creates expectations in communities that the company will provide the resources needed to lift them out of poverty. Companies can make significant contributions to the well-being of nearby communities, but some contributions, such as roads, can have both primary and secondary impacts on biodiversity. Company support for integrating conservation and development activities at the appropriate scale (i.e. regional land-use planning) can help communities promote development without compromising the integrity of ecosystems. Designing and implementing economic alternatives such as agroforestry, ecotourism and improved resource management can promote sustainable community economic development without threatening local biodiversity. Indeed, switching from practices such as slash-and-burn agriculture to agroforestry methods may actually improve the status of biodiversity in a particular area by creating buffer zones or increasing connectivity between ecosystems. The role that regional land-use planning plays is crucial, as it allows for a broader analysis and development of options to achieve both development and conservation goals in the area in question.

At its Kutubu joint venture oil development in the highlands of Papua New Guinea, ChevronTexaco is partnering with the World Wide Fund for Nature (WWF), national and provincial government and local landowners to implement the Kikori Integrated Conservation and Development Plan. The initiative, which began in 1994, includes a major biodiversity study of the region by both local and international scientists, development of pilot ecoforestry and ecotourism projects to lessen pressure on the standing forest, raising community

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awareness about the negative impacts of industrial-scale logging, and training for local government officials and community members in conservation skills and management. In 2001, the company joined with WWF to create the Community Development Initiative Foundation to support sustainable social and economic development in surrounding rural communities while protecting biodiversity. The foundation focuses on health care, education, agriculture, development planning, sustainable use of natural resource and capacity-building.

Shell South Africa is working with FFI and the Flower Valley Conservation Trust to purchase 550 hectares of mostly pristine fynbos shrubland. The goals of the Flower Valley project are to conserve the biodiversity of the lowland fynbos, to generate livelihoods in an area of high unemployment through sustainable harvesting of the fynbos flowers and associated micro-enterprises, such as paper-making, and to improve the quality of life of farm workers and their families through the provision of education and health services.

### 3. CONCLUSION

Companies operating in areas of high biodiversity value are increasingly expected to go beyond simply mitigating the potential adverse effects of their operations and make some sort of positive contribution to biodiversity conservation. By working closely with government officials and other local stakeholders and carefully evaluating the local economic, environmental and social situation in a project area, companies can develop effective programs and strategies for benefiting biodiversity conservation in the areas and countries in which they work.