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EU and Biodiversity Conservation in Tropical Countries

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Table of Contents

1. Introduction

Biodiversity loss is currently felt to be one of the key environmental issues facing the planet, as exemplified by the signing of the Convention on Biological Diversity in Rio de Janeiro in 1992. Within the European Union, it has been identified as one of the 12 key European environmental problems to be addressed[1]. In a global context however, biodiversity issues are much more pressing in the developing world, where the level of biodiversity is much higher and the threats it faces are more imminent. EU countries can therefore contribute to global biodiversity conservation efforts and meet their obligations under the Convention on Biological Diversity not only by protecting biodiversity at home, but also by assisting developing countries in their own biodiversity management and protection efforts. This paper will present an overview of the efforts that EU countries are currently undertaking with regards to biodiversity efforts abroad, including a rationale for such activities, an overview of the extent and type of work currently being done, and a brief analysis of its effectiveness.

1.1 Biodiversity conservation priorities

The term 'biodiversity', though widely used, is not often precisely defined. Traditionally, there have been two ways of looking at biodiversity: species diversity and genetic diversity. A third way of looking at biodiversity as the diversity of ecological functions or ecosystem diversity, has recently emerged. All three approaches are closely related, and in many instances protecting ecosystem diversity, for example, also means protecting genetic and species diversity. In practical terms, efforts to protect biodiversity have focused on protecting endangered or biodiversity-rich ecosystems (*in situ* conservation, protecting both species diversity and ecosystem diversity), protecting endangered species in their natural habitat (*in situ* conservation, focus on protecting species diversity but often cannot be separated from protecting ecosystem diversity), protecting endangered species through captive breeding programs or the establishment of gene banks (*ex situ* conservation, focusing on species and genetic diversity), and protecting the genetic diversity of important species such as agricultural crops (often referred to as agricultural biodiversity). For the purposes of this paper, the focus will be on natural (as opposed to agricultural) biodiversity. In particular, the paper will concentrate on *in situ* efforts to protect natural biodiversity. These best represent the challenges of biodiversity protection in developing countries, where the key threats to biodiversity include land-use and population pressures on natural habitats, and where the best way to protect biodiversity is to reconcile land and natural resource use with ecosystem protection.

When dealing with biodiversity protection, the areas that need the most urgent action are those in which biodiversity levels are highest, those with high levels of endemism (high numbers of species which are found nowhere else in the world), and those where the threats to biodiversity are the most imminent. As stated above, most of these areas are found in the developing world. However, within the developing world there are areas which need more urgent attention that others, and these are the areas that this paper will focus on. In recent years there has been a concerted effort to identify these areas and to come up with global biodiversity conservation priorities. The effort has been two-pronged: on the one hand, there has been an effort to identify so-called "megadiversity countries", those whose biodiversity levels are highest, and on the other, the focus has been on identifying areas of high endemism, particularly where highly threatened. Seventeen countries have

[1] European Environmental Agency 1998, *Europe's Environment: the Second Assessment*

been named megadiversity countries, and they alone hold about 80% of the world's biodiversity[2]. These countries are concentrated in the tropical Andes (Colombia, Peru, Ecuador, Venezuela), Amazon basin (the above three plus Brazil) and in south Asia (Malaysia, Philippines, Indonesia, India, China), along with several other large countries, mostly in the tropics. The other approach, of identifying key ecoregions or threatened hotspots, yields similar results, as these are often concentrated in the "megadiversity" countries (e.g. the Chocò lowlands of Colombia and Ecuador, the Atlantic rainforests of south-eastern Brazil). In order to be most efficient, efforts to preserve biodiversity in developing countries should therefore concentrate on these areas.

1.2 The Convention on Biological Diversity

While concerted efforts to protect biodiversity have been underway for decades, the signing of the Convention on Biological Diversity (CBD) in 1992 has helped in both giving them increased visibility and in creating an international framework under which to pursue such efforts. The CBD is a very relevant document with regards to the EU's role in preserving biodiversity outside its borders. All EU countries have signed and ratified this agreement, as has the EU itself. The Convention on Biological Diversity's general objectives are "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources." More relevant to the scope of the paper are the provisions within the CBD to encourage international co-operation in biodiversity conservation, and to create mechanisms for developed countries to help developing countries preserve their own biodiversity resources. These can be found in Articles 20 and 21. Decision III/6 of Article 20 urges developed country parties to " to co-operate in the development, where possible, of standardised information on their financial support for the objectives of the Convention on Biological Diversity". Article 21 "provides for a mechanism for the provision of financial resources to developing country Parties for purposes of this convention on a grant or concessional basis". The institutional structure to operate the financial mechanism under the CBD is the Global Environmental Facility (GEF). The GEF was established in 1991 to forge international co-operation and finance actions to address four critical threats to the global environment, including biodiversity loss. Four of the 12 operational programs through which the GEF provides grants are in the field of biodiversity, focusing on four different ecosystems (arid and semi-arid, coastal/marine/freshwater, forests, and mountains). GEF projects are funded by 36 countries which include the EU countries; these countries pledged US$ 2.75 billion in 1998 to fund GEF sponsored projects.

The CBD and the GEF therefore provide an internationally sanctioned mechanism for developed countries (including the EU) to finance biodiversity conservation activities in developing countries. However, much of the most important work with regards to biodiversity conservation takes place outside this framework. Within the EU, the academic and non-profit sectors are among the leaders in this field,. NGO's are among the most significant actors in promoting and financing biodiversity conservation, especially when it comes to small-scale and grass-roots projects. Universities and research centres on the other hand are most active in mapping global biodiversity, identifying critical hotspots, studying threatened species and providing the raw data needed in order to formulate biodiversity conservation strategies. Additionally, they play a crucial role in linking academic and scientific institutions in the developed and developing worlds, forming qualified specialists from developing countries, and helping with capacity building efforts abroad. This paper will therefore look at both approaches to helping preserve the world's most biodiversity rich areas. On the one hand, it will describe the more "formal" approaches, which take place through CBD mechanisms and which mostly involve governmental institutions, and on the other hand it will deal with the more "informal" but equally important approaches involving academia and NGO's.

[2] Mittermeier et al 1997 *Megadiversity: Earth's Biologically Wealthiest Nations*, Conservation International, Washington DC

2. The EU and biodiversity conservation

2.1 The EU & biodiversity conservation abroad: official policies

The "formal" approach here includes the policy framework under which biodiversity conservation efforts abroad are carried out. At a national level, the agencies which are entrusted with carrying out such activities are varied, but some broad conclusions can be drawn out. The most clearly identifiable of these agencies are the focal points for the CBD and the CMH. For the EU countries, these are almost always government agencies. The CBD focal points in particular are usually located within government ministries. These are almost evenly divided between environment (France, Germany, Norway, Spain, Sweden, and the United Kingdom) and foreign affairs ministries (Denmark, Finland, Italy, Greece, Luxembourg, the Netherlands, Portugal). In a few cases, they are located within other ministries (in Ireland both CBD and CMH focal points are part of the Department of Arts, Heritage, Gaeltacht and the Islands), or academia (the Royal Belgian Institute of Natural Science). CMH focal points are sometimes the same as CBD focal points (this is the case in Belgium, Ireland, and Spain, both are in the Ministry of the Environment in Germany though under different agencies), but usually they are separated. Most often, they are located within national environmental agencies though not necessarily under the umbrella of environment ministries. This is the case in Austria (Federal Environmental Agency), Denmark (National Forest and Nature Agency), Finland (Finnish Environmental Institute), Italy (Italian Agency for New Technology, Energy and Environment – ENEA), the Netherlands (National Reference Center for Nature Management), Norway (Directorate for Nature Management) and the UK (Joint Nature Conservation Committee). Germany and Spain's CHM focal points are both located within their respective environmental ministries, while in the case of France and Belgium they are under the academic umbrella (national natural history museums). Greece, Portugal and Sweden do not yet have national CHM focal points. The focal points for the European Community are located with the Environment and Development Unit of the European Commission, Directorate General XI - Environment, Nuclear Safety and Civil Protection (CBD), and the Project Manager for Nature and Forests of the European Environment Commission (CHM).

The way the focal points are distributed provides a good hint as to where "formal" biodiversity policy approaches are directed. One could identify two broad ways to set policy, one that is more in line with CBD constraints and objectives, and another that aims to complement other foreign policy objectives and priorities. The first is epitomized by the types of projects that the GEF funds, and that closely follow the stated aims of the CBD.

The second way of setting policy reflects the individual foreign policy objectives of the respective countries. Aid budgets are usually allocated according to geopolitical priorities, and aid for biodiversity conservation usually follows those priorities. As a result, it does not always flow to the most biodiversity rich countries or to the areas that have the most pressing need. Italy is an example of this. The Italian foreign aid budget is to be spent as follows: 80% to the Balkan area, the Near East, North Africa, the Horn of Africa, SADC nations, China, and India, with the remaining 20% to be spent in Latin America and other parts of Asia and Africa. Most of the areas where spending is concentrated are not global priorities in terms of biodiversity conservation, and as such aid for biodiversity protection is virtually nil. In fact, when one looks at Italy's efforts at promoting international cooperation in biodiversity conservation, one sees that current efforts have so far been limited to cross-border initiatives with neighboring countries, mostly revolving around protected areas in the Alps and marine parks in the Mediterranean. While Italy's international co-

operation objectives under the CBD framework do explicitly include co-operation with the developing countries through bilateral initiatives, so far little progress has been made, in part because most of the money spent on aid will go to areas where biodiversity protection is not a top priority.

While the Italian example is relevant, it is not emblematic of the situation across the EC. In fact, approaches to helping biodiversity conservation abroad are quite varied in different countries. Finland is a good example of a country with a relatively long-standing, well defined policy with regards to development aid and biodiversity. Finland has made environmental protection on of the cornerstones of its development aid policy, and within this field has emphasized biodiversity as one of the key issues to be addressed, both with specific projects and as a component of cross-cutting projects. Furthermore, many of its projects are actually aimed at some of the most biodiversity rich areas on the planet. It total, it has contributed an estimated FIM 680 million to approximately 60 projects since the mid-1980's and is still quite active in this field today. Finnish supported projects include in situ conservation, capacity building and support for institutions dealing with biodiversity management, and a wide variety of more general environmental projects in which biodiversity is an important component. Some of these projects are worth a closer look as they provide a good cross-section of the type of work that best supports biodiversity conservation abroad.

In several cases Finland has explicitly targeted its biodiversity aid at global hotspots. This is the case for example in Amazonian Peru, perhaps the single richest area in the world with regards to biodiversity, where a capacity building program has begun in 1999 that aims to help finalize Peru's national biodiversity strategy and create a number of biodiversity databases. Another example is the Eastern Usambara Catchment Forest project in Tanzania. This project targets what is probably the most important area in the Eastern Arc Mountains of Tanzania, itself a global biodiversity hotspot which holds some of the highest levels of species richness and endemism in all of Africa. The project is based on a multidisciplinary approach to biodiversity conservation, combining conservation with economic and social development opportunities for the local population. As such, it includes an agroforestry component to improve land use and decrease the pressure on natural forests, and a component to enhance ecotourism opportunities which would benefit local populations. These measures would complement more traditional approaches which emphasize direct conservation (and which this project includes with the establishment of conservation forests by local authorities).

Not all of the projects funded by Finland are picked primarily on the basis of the site's global importance, but this consideration is generally included in projects. When looked at as a whole, there is no systematic intention to favor biodiversity hotspots, though there is an effort to target them when the opportunity arises. While Finland has funded biodiversity protection throughout the world, there is a definite geographic bias towards certain areas. Southern Africa is the area that has received the most attention: out of 60 projects undertaken in support of the CBD between 1988 and 1999, 17 have been in southern Africa (particularly Namibia and Zambia). East Africa, and Tanzania in particular, have also received a lot of attention, with 15 projects taking place there. Secondary areas of assistance have included Central America, Central Asia (the former Soviet republics), South East Asia and Peru, with a few scattered projects elsewhere (West Africa, Brazil).

The types of projects that Finland has funded also reflect the types of biodiversity projects that EU countries have funded as a whole. They can be divided into strictly biodiversity focused projects, and broader environmental projects which also benefit biodiversity conservation. The strictly biodiversity focused projects are a minority. Of the 60 biodiversity-related projects Finland has funded, only 6 have biodiversity protection as their unique goal. These include projects whose main goal is capacity building and support to national biodiversity strategies (such as the

Amazonian Peru project discussed above, a project in Nicaragua which aims to guide and coordinate the work of various institutions working on biodiversity protection and sustainable use in the country, and one in Mozambique which aims to collect data on biological diversity to assist in development planning). They also include the more traditional in situ conservation approaches, such as the creation of national parks (as is the case in the Udzungwa mountains of Tanzania, another area with high levels of endemism), and projects whose main objective is to conduct research on biodiversity and ecology as the basis for future conservation efforts (this is the case with another project in the Eastern Arc mountains of Tanzania).

The majority of projects that Finland has undertaken in support of the CBD however have been projects where biodiversity conservation is either one of multiple aims of the project, or is a by-product of the project's ultimate goals. These are broader-based environmental projects that fall under thematic areas that have a significant impact on biodiversity. The largest group of such projects focus on the sustainable management of forest ecosystems. Within this group some projects tackle biodiversity protection more explicitly than others, but all have an impact. A series of projects which aim to combat desertification (in Namibia, Sudan, and Burkina Faso) are an example of the more biodiversity relevant projects. Another example are projects which support the sustainable management of natural forests, which are among the richest reservoirs of biodiversity. Finland is involve with a number of such projects in Tanzania, Indonesia, Laos, and a other countries. Similar projects have also focused on wetland ecosystems (e.g to remove introduced plant species detrimental to biodiversity and fisheries productivity), coastal areas, mountain ecosystems and desert ecosystems. Other projects which tackle agricultural ecosystems, along with some of those that deal with forests, are more marginally concerned with biodiversity but still fall under the CBD. These are projects that aim to promote sustainable livelihoods among rural peoples, improve agricultural methods, prevent erosion, encourage the use of natural pesticide and other environmentally friendly agricultural practices. While not having biodiversity protection as their ultimate goal, they decrease the pressures put on natural ecosystems and therefore play an indispensable complementary role. A fair amount (about 15%) of Finland's CBD projects could be classified as such.

Finally, a number of Finland's CBD projects do not address a particular ecosystem or protected area, but focus on overall environmental management and planning, research and training, and education and public awareness. While some of these (such as the Peru and Nicaragua cases above) focus only on biodiversity, but most of the others are general environmental projects. These are however extremely important for biodiversity conservation as in many cases they take place in countries where the environmental protection framework is very weak, and they form the basis for future efforts to tackle specific problems effectively. Two examples are the projects that Finland has funded in Cambodia and Kyrgyztan, two countries where environmental protection efforts are just getting off the ground, and where there was no institutional framework within which to work on more specific problems. The training programs that Finland has funded have focused on areas relevant to biodiversity management, such as forestry. A small number of projects have also tried to improve future environmental protection efforts by raising awareness about issues that are relevant to biodiversity conservation. A project to raise awareness of their own culture among Amazon tribes in Peru, while seemingly unrelated to biodiversity, actually plays an important role in promoting sustainable ways of life in an ecosystem that is of exceptional importance to the preservation of global biological diversity.

The Finnish case is a good example of a relatively comprehensive policy to assist in biodiversity conservation abroad and meet the country's obligations under the CBD. As can be seen by comparing Finland's approach with that of Italy, it is obvious that a common EU approach does not yet exist. Finland's case however is not necessarily typical. A more typical case is that of Belgium,

which typically tries to incorporate biodiversity protection in some of its environmental projects without necessarily making it its top priority. An example is a river basin management project in Senegal in which management of biodiversity resources was a minor component. The rest of Belgium's biodiversity aid goes through the GEF.

Another important way in which EU countries are protecting biodiversity abroad is by setting up research cooperation. Germany and Colombia have recently set up a partnership through which research project ideas linked to the CBD can be exchanged through a website, which has generated a high level of response with a number of research projects linking Colombian and German scientists being proposed. This has the effect of both gaining a large amount of knowledge about one of the world's "megadiversity" countries while at the same time strengthening the local scientific community. Italy is expected to participate in this project as well.

A few conclusions can therefore be drawn out about the types of projects being sponsored by EU governments. Projects strictly focused on biodiversity protection (such as setting up and establishing protected areas) are a minority. These are mostly sponsored by countries which already have well developed efforts to implement CBD recommendations regarding international cooperation, and which are already sponsoring a wide variety of environmental projects. Much more common are broader environmental projects in which biodiversity protection is either a component, or a by-product of the intended results, and indeed in many countries these are the only biodiversity projects currently being financed (in combination with funding the GEF). One of the most promising ways of promoting biodiversity protection abroad is the setting up of research partnerships linking scientists and institutions.

In terms of geographical coverage, there is no systematic effort to target the most biodiversity rich countries. In some cases, such as Finland, there is an effort to do so when possible, or to target particularly rich or important areas within the countries that are receiving aid. In most other cases however, targets for aid spending are chosen predominantly according to geo-political factors. France for example is very active in its former colonies in west Africa. Italy's target countries, particularly those of south-east Europe and the Balkans, are areas with which it has close economic links, and expanding its presence there helps it to achieve economic and political goals. In terms of overall policy therefore, considerations about where to target biodiversity aid geographically are influenced less by where the need is greatest that by which countries are already being targeted for other reasons. Within this framework, the best solution is to identify biodiversity priorities within the countries that are being targeted, which many EU countries are already doing.

2.2 The EU & biodiversity protection abroad: academia and NGO's

The other way in which EU countries are helping with biodiversity conservation abroad is through a more "informal" framework, which includes the work of NGO's, universities, research centers and other non-governmental institutions. While it is true that the two frameworks overlap (for example, aid projects funded by government agencies are often implemented by non-governmental institutions such as universities), there are enough differences between the two approaches, including the types of projects that are funded and their geographical scope, that they are worth discussing separately.

There are several types of non-governmental institutions currently participation in biodiversity conservation efforts. The academic sector is usually heavily involved. Much of the actual field work and investigation on biodiversity that European universities and research centers are currently undertaking takes place in the tropics, where biodiversity levels are highest and ecological

relationships more complex, and in this way they are making a significant contribution to biodiversity conservation. NGO's are also playing a very significant role. Many environmental NGO's operate under the explicit purpose of preserving endangered species and ecosystems, and thus make biodiversity conservation the core principle under which they operate. Others focus more broadly on sustainable development, and within this framework they also contribute to biodiversity conservation. A large number of NGO's work in developing countries, and many make them the sole focus of their operation (sometimes focusing on a single country), so that overall their role in helping biodiversity conservation abroad is quite substantial.

Broadly speaking, there are some differences between the way academic organizations and NGO's contribute to biodiversity conservation. There are two main contributions that come from academic organizations: one is advancing the knowledge of where the richest and most endangered areas are and how their ecosystems function, thus helping to set priorities, and the other is establishing links between scientists in developed and developing countries, thus creating a cadre of local experts that will greatly enhance biodiversity management in their home countries.

A good example of a program which includes both types of approaches is the Center for Research on Cultural and Biological Diversity of Andean Rainforests (DIVA), a joint research program involving several Danish universities and museums with 7 universities and museums in Ecuador, Peru, and Bolivia. The project's goal is to is to produce management tools (GIS systems, habitat maps, strategies with top priority areas indicated, and recommendations for sustainable management) for species rich forest ecosystems and for a balanced and sustainable use of the natural resources. The project focuses on the effects that different kinds of land-use and cultural pressures have on species rich rainforest ecosystems along the Andes. The biological data assembled by the project so far (some collected directly by the project, and some gathered from other sources), which has concentrated on avian and botanical distributions, has gone a long way towards producing an accurate and up to date biodiversity map for the region, thus providing critical data for setting conservation priorities. The project also maps environmental constraints and uses GIS systems to provide a common geographical framework for the data collected. In addition, it analyses the influence of different cultural pressures on biodiversity, and includes a socio-economic analysis of possible future development trends in order to anticipate potential policy options.

The DIVA project is an excellent example of how EU countries can actively promote very effective ways of conserving biodiversity abroad. In terms of geographical scope, the DIVA project targets what is arguably the single most important area in the world for biodiversity, the tropical Andes. The involvement of Peruvian, Ecuadorian and Bolivian institutions creates a local capacity building process which is one of the most important contributions that academic involvement abroad can make. Furthermore, the integrated approach it takes, combining biological surveys and data gathering with socio-economic work, provides a sound base for making policy decisions. European universities and institutions are in fact involved with a number of projects that take an approach similar to that of DIVA. Other examples include a project whose principal investigators are the Universities of Copenhagen and Cambridge (UK), to provide a continent-wide blueprint for conservation actions in Africa. This project focuses on identifying priority areas for the conservation of birds, mammals, reptiles, and amphibians in Africa, how far conserving priority areas for one group would go towards conserving the others, and how development pressures and conservation can be conciliated. Again, the emphasis is on creating and maintaining databases that help map biodiversity, and then using this information when making development decisions. This is perhaps the most important way for academic institutions to contribute to biodiversity conservation, as the data they generate provide the basic "building blocks" necessary to formulate biodiversity strategy. Their geographical priorities are also often very much in line with global biodiversity priorities. This is due in part to the fact that academic institutions are among the ones

that are setting such priorities, but also because academics working in the fields are drawn to areas where biodiversity is at its richest, and where opportunities to study it are therefore greater.

In recent years there have been some interesting developments in which undergraduate students are making significant contributions to biodiversity conservation, particularly in U.K. universities. These projects are on a much smaller scale than those described above, but they can nevertheless be very effective at a local level. They are exemplified by a program currently being funded by British Petroleum, which provides funding for student led biodiversity projects worldwide (£125,000 in 2001). Though this program is not specifically aimed at European countries, most of the award recipients, especially in the first years of the program (1996-1998) were university teams from EU countries in collaboration with local counterparts. Teams that are awarded funds from BP must be comprised of a majority of undergraduate students, must involve local counterparts in the areas where they are working, and must address international conservation priorities. As such, the geographical balance of the projects funded so far is heavily skewed towards biodiversity rich countries. Of 96 projects so far, 19 have taken place in south-east Asia, and 13 in tropical Andean countries. The majority of the projects so far have focused on undertaking biological surveys or on studying endangered species (all the while including advice on conservation policies), while a few have adopted a broader approach and focused on sustainable development issues. A number of universities, particularly in the UK, have similar programs to fund undergraduate teams working on biological expeditions to little-known areas, and the information gathered is often extremely useful in identifying new priority areas for conservation.

The other major players in biodiversity conservation are NGO's. On a global level, large environmental NGO's are probably the most important supporters of biodiversity conservation. Looking at them in a European context however is problematic. Most of the largest NGO's working on biodiversity conservation are either based in the United States (Conservation International, The Nature Conservancy), or Europe (World Conservation Monitoring Center, Birdlife International). However, it is difficult to think of the European-based ones as "European NGO's", and it is perhaps more appropriate to think of them as international NGO's. There are however a large number of smaller European-based NGO's doing important work on biodiversity conservation in developing countries, and they are perhaps more representative of European efforts to preserve biodiversity.

Many of the smaller European NGO's only operate in one or a few countries abroad, sometimes just in one small area. For this reason however they are much more likely to have strong links with local institutions, and to have a better grasp of local realities. In addition, since for many biodiversity conservation is their sole reason for being, the types of projects they support are much more closely focused than those funded by aid agencies. An example of such a small European NGO doing very effective work is Equafor, a British-based NGO playing a key role in local biodiversity conservation in Ecuador. Equafor was funded in 1994 in order to promote rainforest conservation through independent local activities. By working closely with Ecuadorean NGO's, it has managed to implement several successful projects in some very important areas. It has cooperated with Fundacìon Jatùn Sacha in order to establish a small rainforest reserve at Bilsa in north-west Ecuador. The area that the reserve protects is one of the few protected tracts of Chocò forest in Ecuador (very humid forests of western Colombia and Ecuador), one of the top priority ecosystems for global biodiversity conservation. In southern Ecuador, Equafor has linked up with Fundacìon Arcoiris to protect and manage forest remnants in the Sozoranga area. These remnants are crucially important for biodiversity conservation, as they are among the last remaining areas of Tumbesian dry forests, one of the world's most endangered ecosystems. Despite its small size and limited funds, Equafor has managed to make a very significant impact by working closely with local-based NGO's, and by targeting its efforts at very specific and crucially important sites. Many

other examples can be found of small European NGO's, often created in order to work on only one site, achieving very significant results.

When one looks at the geographical scope of the work, again there are discrepancies. A high proportion of the universities and NGO's sponsoring biodiversity conservation abroad are from Scandinavian countries, the United Kingdom, and Germany, while other EU countries, such as Greece, play a much smaller role. With regards to where the work is undertaken however, it is clear that universities and NGO's are more likely to target biodiversity hotspots than aid agencies are, and especially in the case of NGO's they are often created for the express purpose of working in such hotspots.

3. Conclusion

Despite some significant differences between the various countries, some broad generalizations can be made about the way EU countries have supported biodiversity conservation efforts abroad. In terms of national policy, most EU countries have linked their biodiversity policies to their obligations under the CBD. However, there is no single EU policy: each country follows its own goals when funding biodiversity conservation projects. In most cases, the geographical scope of the projects are dictated more by geo-political needs than by where biodiversity is more immediately threatened, though this is not always the case (the countries which are the most active in funding biodiversity conservation also tend to be the ones that pay most attention to geographic priorities). The relatively recent rise of biodiversity conservation as a top environmental priority is perhaps in part to blame for this scattered approach to biodiversity policy, as effective mechanisms to implement the CBD have not yet completely evolved, and as biodiversity policy still fits rather awkwardly in national policies.

When comparing official approaches to biodiversity conservation with those undertaken by European NGO's and academic centers, several similarities and differences arise. The main similarity is that again, there are wide discrepancies between what individual countries are doing, with some being quite active and others having very few links to biodiversity conservation abroad. However, the differences are perhaps more interesting. There seems to be a much more significant effort on the part of NGO's and academic institutions to target biodiversity hotspots. While the type of work they do (academic institutions focusing more on survey and inventory work, NGO's more on conservation and sustainable development) is different, in both cases it is highly relevant to overall conservation efforts. These institutions are also more likely to work closely with grass-roots organizations and local communities in developing countries, thus helping to strengthen local biodiversity conservation efforts.

While the overall picture may appear mixed, the differences between official policies and the work of non-governmental institutions are not unexpected, as they reflect the priorities and limitations of each institution. With a little more time to define a common approach to biodiversity policy abroad between all the EU countries, the combination of official and "non-formal" approaches may prove to be a very effective mechanism to help preserve global biodiversity.