

# Whither biodiversity in development ? The integration of biodiversity in international and national poverty reduction policy

*Dilys Roe*

**Abstract.** The link between biodiversity conservation and poverty alleviation has been the subject of heated debate for the last decade. One thread of this multi-faceted issue has been concerned with a perceived lack of attention to biodiversity conservation within the international development agenda following the prioritization of poverty reduction - particularly, the emphasis on the Millennium Development Goals (MDGs) and on national poverty reduction strategies. In this paper I explore whether biodiversity has indeed “fallen off” the development agenda, as critics claim, by reviewing the policies of official development assistance agencies and national Poverty Reduction Strategy Papers (PRSPs).

AUTHOR'S ADDRESS:  
International Institute for Environment and Development,  
3 Endsleigh Street, London WC1H 0D  
dilys.roe@iied.org

## INTRODUCTION

In the last decade there has been a vociferous – and sometimes acrimonious - debate about the link between biodiversity conservation and poverty alleviation. Three key concerns have dominated: (1) the activities and accountability of big international conservation NGOs, and their impacts on local communities (Chapin 2004); (2) the apparently increasing protectionist focus of conservation policy and the implications for communities resident in and around protected areas, (Hutton *et al.* 2005; Brockington & Igoe 2006); and (3) the current lack of attention to biodiversity conservation on the development agenda following the prioritization of poverty reduction and, particularly, the emphasis on the Millennium Development Goals (MDGs) and on national poverty reduction strategy papers (PRSPs) (Sanderson & Redford 2003; Roe & Elliott 2004; Lapham and Livermore 2003; Sanderson 2005; DEG 2006). The latter is the focus of this paper and I explore whether biodiversity has indeed “fallen off” the development agenda by reviewing i) the biodiversity policies of official development assistance agencies and ii) the integration of biodiversity into national poverty reduction strategy papers (PRSPs).

International development policy has changed significantly over the last two decades, both in its focus and in its primary choice of delivery mechanism. In the late 1980s and early 1990s, following production of the Brundtland Report (WCED 1987) and the 1992 UN Conference on Environment and Development (the “Earth Summit”), the focus was sustainable development and a key delivery mechanism was projects implemented through intermediaries including NGOs. In the late 1990s the focus switched to poverty reduction and the preferred delivery mechanism switched to direct budget support.

Poverty reduction has always been a recurring theme on the international development agenda (Maxwell 1999). However, it became the dominant defining focus of development assistance policy in the late 1990s, for two main reasons. First, the Development Assistance Committee of the Organization for Economic Cooperation and Development published a set of seven poverty-focussed targets (OECD 1996). Many bilateral aid agencies responded by shifting their policies in line with these targets. For example, the UK Department for International Development (DFID) published a White Paper on poverty reduction (DFID 1997). The United Nations repackaged these targets in 2000 as the MDGs, resulting in an even greater alignment of bilateral agency policy and an unprecedented level of international commitment to poverty reduction (Satterthwaite 2003). Second, the World Bank and International Monetary Fund initiated the development of country-level Poverty Reduction Strategy Papers in 1999

as the basis for concessional lending and debt relief to poor countries. These were underpinned by the Comprehensive Development Framework that emphasized developing country ownership and direction of the development agenda (Stiglitz 1998). This had a significant impact on the delivery of development assistance funds, with many donor agencies moving away from project-based funding and towards direct budget support. Under this, aid money is paid to the recipient country treasury and the government decides on its allocation in line with the priorities identified in its poverty reduction strategy.

These changes have had significant implications both for the priority afforded to biodiversity and for the ability of conservation NGOs to access development assistance funding (Roe & Elliott 2004; Lapham and Livermore 2003). The concept of sustainable development provided an entry point for international conservation NGOs to engage with the international development agenda (Corson 2010). Development agencies routinely financed large conservation projects with NGOs as implementing agencies. For example, the UK Department for International Development (DFID) invested significant funds in protected area projects such as Mount Cameroon (£10.6 million between 1991 and 2002) and Amboro National Park, Bolivia (£3.12 million between 1996 and 2000) (DFID 2002). This is still the case with some donor agencies – the US Agency for International Development (USAID) for example is an important donor to many of the US-based international conservation organisations (USAID 2009).

However, increasingly, and in response to the 2005 *Paris Declaration on Aid Effectiveness* (OECD 2005) which emphasises i) developing country ownership of the aid agenda, and ii) harmonised donor alignment behind that domestic agenda, direct budget support has replaced project funding as the main aid delivery mechanism. As a result, over the past decade, donor agencies have become increasingly reluctant to provide direct support to NGOs or to fund conservation efforts unless they make a tangible contribution to poverty reduction – thus giving rise to the claim that biodiversity has “fallen off” the development agenda.

## METHODOLOGY

To explore the extent to which biodiversity is integrated into development policy two exercises were undertaken: 1) a brief review of development assistance agency policy, and 2) an analysis of national level poverty reduction strategy papers (PRSPs).

The OECD Development Assistance Committee (DAC) is the formal forum for aid coordination amongst the major donor countries. Resources and information available on the websites of the development assistance agency of each member state were reviewed to explore the extent to which biodiversity is addressed and then the findings verified where possible with agency staff. Each country was allocated a score of 0-3 depending on the prioritisation afforded to biodiversity: 3) the agency has a stand alone biodiversity policy; 2) the agency doesn't have a biodiversity policy

## Annex 1: Biodiversity in bilateral agency policy

Country	Agency	Score	Comments	More information*1
Australia	AusAid	1	The environment policy is focused on climate change but the Environmental Management Guide (2003) recognizes the link between resource and ecosystem degradation and poverty.	<a href="http://www.ausaid.gov.au/publications/pdf/Environmental_Management_Guide.pdf">http://www.ausaid.gov.au/publications/pdf/Environmental_Management_Guide.pdf</a>
Austria	Austrian Development Agency (ADA)	3	The 2003 biodiversity policy dating from 2003 is focused on mainstreaming biodiversity into ADA programmes at the local level, supporting sustainable use and local capacity development. The environment policy has four priorities of which one is "sustainable natural resource management, combating desertification and preserving biodiversity." This includes "Promotion of nature reserves and innovative incentives for resource protection" and "sustainable forest management".	<a href="http://www.entwicklung.at/uploads/media/Biodiversitaet.pdf">http://www.entwicklung.at/uploads/media/Biodiversitaet.pdf</a>
Belgium	Belgian Development Cooperation (DGDC)	1	Biodiversity is mentioned within the environment "topic" (e.g the theme of the 2010 Belgian Development Cooperation Prize is "Biodiversity and Environment".) but the overall focus of the environment policy is moving increasingly to climate change.	<a href="http://diplomatie.belgium.be/en/policy/development_cooperation/topics/environment_and_climate/index.jsp">http://diplomatie.belgium.be/en/policy/development_cooperation/topics/environment_and_climate/index.jsp</a>
Canada	Canadian International Development Agency (CIDA)	1	Canada's international assistance is focused on three thematic priorities: Food Security, Children and Youth, and Sustainable Economic Growth. Biodiversity is not specifically mentioned but environmental sustainability is seen as integral to the achievement of all three priorities.	<a href="http://www.acdi-cida.gc.ca/acdi-cida/ACDI-CIDA.nsf/eng/FRA-1015144121-PWW">http://www.acdi-cida.gc.ca/acdi-cida/ACDI-CIDA.nsf/eng/FRA-1015144121-PWW</a>
Denmark	Ministry of Foreign Affairs	1	A "New Strategy for Danish Development Cooperation" is currently in draft format (March 2010) but includes a chapter on environment and climate. Here, the focus on biodiversity is through the development and implementation of green growth strategies and through REDD. "We want to contribute to the preservation of biodiversity in forests".	<a href="http://www.um.dk/NR/rdonlyres/488604D3-DB2A-4F12-B1B7-C484BDE2E8CC/0/NewStrategyforDanishDevelopmentPolicy_REV.pdf">http://www.um.dk/NR/rdonlyres/488604D3-DB2A-4F12-B1B7-C484BDE2E8CC/0/NewStrategyforDanishDevelopmentPolicy_REV.pdf</a>
Finland	Ministry of Foreign Affairs	2	Ecologically sustainable development is identified as a key objective of Finland's development cooperation. Biodiversity is not addressed as a specific sector within that but is seen as an outcome of other target interventions – sustainable forest management, agriculture, land use planning etc. The role of biodiversity in adaptation is also noted.	<a href="http://formin.finland.fi/Public/default.aspx?contentid=180138">http://formin.finland.fi/Public/default.aspx?contentid=180138</a>
France	France Diplomatie and Agence Française de Développement (AFD)	3	AFD has three objectives of which "Protecting Global Public Goods" is one. This includes "preservation of biodiversity". A primary focus for interventions is on forest management in Central Africa. AFD is also in the process of elaborating a strategy on biodiversity for its operations, with the support of the Ministry of Foreign Affairs including mainstreaming, economics and international policy.	<a href="http://www.afd.fr/jahia/Jahia/lang/en/home/GouvernanceAFD">http://www.afd.fr/jahia/Jahia/lang/en/home/GouvernanceAFD</a>
Germany	Federal Ministry for Economic Cooperation and Development (BMZ)	3	German development policy is aligned with the MDGs. Within its focus on environmental sustainability BMZ prioritises 5 issues of which one is biodiversity. The biodiversity strategy notes "the core philosophy is to make a connection between conservation of biodiversity and poverty reduction". It also stresses that biodiversity is not just a field of action in its own right but also needs to be mainstreamed into other development projects and programmes.	<a href="http://www.bmz.de/en/issues/Environment/biodiversitaet/index.html">http://www.bmz.de/en/issues/Environment/biodiversitaet/index.html</a>
Greece	Hellenic Aid	0	There is no specific environment policy and no biodiversity policy	<a href="http://www.hellenicaid.gr/frontoffice/portal.asp?cpage=NODE&amp;cnode=1&amp;clang=1">http://www.hellenicaid.gr/frontoffice/portal.asp?cpage=NODE&amp;cnode=1&amp;clang=1</a>
Ireland	Irish Aid	2	Irish Aid policy is aligned with the MDGs with environment treated as a cross cutting strategy rather than as a priority in itself. The environment policy notes the importance of addressing global environmental problems including biodiversity loss – but again through encouraging their mainstreaming in national sustainable development strategies. A "key sheet" on biodiversity acts as a resource for promoting mainstreaming amongst agency staff.	<a href="http://www.dci.gov.ie/Uploads/3%20Environment%20and%20Bio-diversity.pdf">http://www.dci.gov.ie/Uploads/3%20Environment%20and%20Bio-diversity.pdf</a>
Italy	Italian Cooperation	1	The website includes a section on "environmental cooperation" which notes the Italian Cooperation believes that the conservation of biodiversity is vital for food security, water availability, health and disaster mitigation. The 2010-2012 "Programming guidelines and directions" note that the 2010-2012 period will be dominated by environmental issues – but include no specific mention of biodiversity except as a co-benefit of REDD.	<a href="http://www.cooperazioneallosviluppo.esteri.it/pgcs/inglese/intro.html">http://www.cooperazioneallosviluppo.esteri.it/pgcs/inglese/intro.html</a>
Japan	Ministry of Foreign Affairs (MOFA) and Japan International Cooperation Agency (JICA)	2	Within its midterm policy (2005) MOFA highlights environmental protection (including biodiversity conservation) as one of three environmental priorities. JICA – executing agency of Japan's ODA supervised by MOFA has recently announced an intent to step up its biodiversity conservation activities.	<a href="http://www.mofa.go.jp/policy/oda/sector/environment/action.html">http://www.mofa.go.jp/policy/oda/sector/environment/action.html</a> <a href="http://www.mofa.go.jp/policy/oda/mid-term/index.html">http://www.mofa.go.jp/policy/oda/mid-term/index.html</a>
Korea, Republic of	Korea International Cooperation Agency (KOICA)	1	Protection of ecosystems is mentioned within KOICA's environment theme but no further details are available.	<a href="http://www.koica.go.kr/english/aid/environment/index.html">http://www.koica.go.kr/english/aid/environment/index.html</a>
Luxembourg	Ministère des Affaires Étrangères	2	Tackling biodiversity loss is included in the "Environment and Climate Change" strategy as part of the commitment to MDG 7. The role of biodiversity in enhancing resilience to climate change is noted.	<a href="http://cooperation.mae.lu/fr/Politique-de-Cooperation-et-d-Action-humanitaire/Strategies-et-orientations">http://cooperation.mae.lu/fr/Politique-de-Cooperation-et-d-Action-humanitaire/Strategies-et-orientations</a>
Netherlands	Ministry of Foreign Affairs (Minbuza)	2	"Sustainability Climate and Energy" is one of 5 priorities identified in the policy document 'Our common concern, Investing in development in a changing world' (2007). Biodiversity is not specifically mentioned but forest conservation is included within this theme as an intervention area. However the government as a whole has articulated a policy programme - "Biodiversity Works" - for the period 2008 – 2011 which covers both national and international interventions and emphasizes the alignment of sectoral policy with environmental sustainability.	<a href="http://www.minbuza.nl/dsresource?objectid=buzabeheer:32207&amp;type=pdf">http://www.minbuza.nl/dsresource?objectid=buzabeheer:32207&amp;type=pdf</a>
New Zealand	NZAid	2	The 2006 environment policy identifies 4 strategic outcomes of which one is "sustainable and equitable development" which includes sustainable natural resources management and maintenance of biodiversity.	<a href="http://www.nzaid.govt.nz/library/docs/environment-international-development.pdf">http://www.nzaid.govt.nz/library/docs/environment-international-development.pdf</a>

Norway	Norad – within the MFA	2	The Action Plan for Environment in Development Cooperation (2006) identifies four thematic priority areas of which “sustainable management of biological diversity and natural resources” is one. In practice, support for biodiversity is channelled largely through the International Climate and Forest Initiative – as emphasized in the latest white paper (2009).	<a href="http://www.regjeringen.no/upload/UD/Vedlegg/Utvikling/ActPlanEnv.pdf">http://www.regjeringen.no/upload/UD/Vedlegg/Utvikling/ActPlanEnv.pdf</a>
Portugal	Ministry of Foreign Affairs	0	Environment is not listed among the priority areas for Portugese development cooperation.	<a href="http://www.mne.gov.pt/mne/en/infopolitica/cdesenvolv/">http://www.mne.gov.pt/mne/en/infopolitica/cdesenvolv/</a>
Spain	Spanish Agency for International Development AECID	2	Environment and climate change listed as one priority on website. The latest “Master Plan for Spanish Cooperation” plan (2009-2012) emphasizes the role of ecosystem services and highlights their conservation and valuation as key objectives.	<a href="http://www.aecid.es/export/sites/default/web/galerias/publicaciones/descargas/libro1_PlanDirector_LR.pdf">http://www.aecid.es/export/sites/default/web/galerias/publicaciones/descargas/libro1_PlanDirector_LR.pdf</a>
Sweden	Swedish International Development Cooperation Agency (Sida)	1	Sustainable development is one of 5 priority areas for Swedish development assistance. Biodiversity is not specifically mentioned within this but the importance of good ecosystem management for poverty reduction is.	<a href="http://www.sida.se/English/About-us/How-we-operate/Important-Areas-of-Development/Environment-Climate-Change-and-Sustainable-Services/">http://www.sida.se/English/About-us/How-we-operate/Important-Areas-of-Development/Environment-Climate-Change-and-Sustainable-Services/</a>
Switzerland	Swiss Agency for Development and Cooperation (SDC)	1	“Agriculture and Rural Development” and “Climate change and Environment” are two of 10 priority themes for SDC. Biodiversity is not specifically mentioned in either – although sustainable use of natural resources – particularly forests – is.	<a href="http://www.sdc.admin.ch/en/Home/Themes">http://www.sdc.admin.ch/en/Home/Themes</a>
UK	Department for International Development (DFID)	0	Following the change of government in May 2010 specific approaches are currently being worked out.	<a href="http://www.dfid.gov.uk/">http://www.dfid.gov.uk/</a>
United States	United States Agency for International Development (USAID)	3	The Foreign Assistance Act requires that USAID address biodiversity and earmarks an allocation of ODA specifically for biodiversity projects. Biodiversity is also integrated within USAID’s forests programme – again mandated by the FAA – forest investments prioritizing those that are biologically significant and activities that conserve biodiversity.	<a href="http://www.usaid.gov/our_work/environment/biodiversity/">http://www.usaid.gov/our_work/environment/biodiversity/</a>

\*Website details correct as of 25.06.2010

but identifies biodiversity as a key priority within a broader environment policy; 1) biodiversity is mentioned in the environment policy but not prioritised; 0) no mention is made of biodiversity.

The main focus of this review, however, is on the national poverty reduction strategy papers (PRSPs) that are published on the World Bank website. PRSPs were introduced in 1999 and are intended to ensure that governments and civil society groups take a lead in defining policies (Hewitt and Gillson 2003) so the extent to which they do or do not prioritise biodiversity is a major influencing factor over the attention it subsequently receives in development policy. Currently 67 countries have published PRSPs. This review considered those from countries in Africa, Latin America and the Caribbean, South Asia and South-East Asia (as classified on the World Bank website) but not those from Eastern Europe and Central Asia or Western Asia. A total of 54 PRSPs were reviewed against the following criteria:

- Is biodiversity mentioned?
- Is the understanding of biodiversity narrowly focussed – e.g. on wildlife, forests, protected areas – or is it more broadly understood to include genetic diversity and agricultural biodiversity, or even broader to encompass ecosystem services? PRSPs were scored from 0-3: (0 = not mentioned, 1 = narrow focus; 2 = focus extends beyond wildlife/forests; 3 = focus encompasses ecosystem services).
- Is the link between poverty and biodiversity loss recognised? PRSPs were scored from 0-3 depending on the detail provided on this (0 = not mentioned, 1 = mentioned; 2 = elaborated; 3 = good practice).
- Is the link between biodiversity and poverty reduction recognised? Again PRSPs were scored from 0-3 depending on the detail provided.

This method of scoring is based on that used by the World Bank in their review of environment in PRSPs (Bojo and Reddy 2002) – albeit with far fewer variables. It is recognised that the score allocated for each criteria is based on a somewhat subjective judgement, nonetheless the scores provide a comparative indicator between the countries. Finally the PRSP countries were compared with a list of high biodiversity countries<sup>1</sup> to determine if any link could be made between the attention paid to biodiversity within the PRSP and the biodiversity status of the country.

There are numerous ways of identifying countries of high biodiversity and/or high conservation value, depending on the indicator used. For example Brooks *et al.* (2006) identify nine approaches for identifying

conservation priorities. In many cases these strategies are focused on conserving the rare or endangered rather than on conserving maximum biodiversity. For the purposes of this review we use the lists of “25 most biodiverse countries”, “25 next most biodiverse countries” and “20 endemic rich countries” generated by the UNEP World Conservation Monitoring Centre (Caldecott *et al.* 1994).

#### OFFICIAL DEVELOPMENT ASSISTANCE AGENCIES POLICIES ON BIODIVERSITY

There are 23 bilateral agency members of the OECD –DAC. Of these, four (Canada, Greece, Portugal and the UK) make no specific reference to biodiversity (at least in the material that is publically available online) and a further six (Australia, Belgium, Denmark, Italy, Korea, Sweden, Switzerland) make only passing reference. It should be noted, however, that the lack of attention to biodiversity within the agencies’ written policy documents does not necessarily mean the agencies do not support biodiversity conservation. Funding for the Global Environment Facility (GEF), for example, comes from development assistance funding with a number of the agencies listed above amongst its biggest donors. Approximately one third of GEF funding is allocated to biodiversity projects. Furthermore, while there may not be an explicit focus on biodiversity, in some cases it is implicit in a concern for environmental sustainability.

Twelve of the 23 DAC members pay significant attention to biodiversity and four of these (Austria, France, Germany and the USA) have a specific policy on biodiversity. The Agences Française de Développement (AFD) has three objectives for its development assistance, of which “Protecting Global Public Goods” is one. This includes “preservation of biodiversity” with a primary focus for interventions on forest management in Central Africa. Further the French Ministry of Foreign Affairs with AFD have recently produced a strategy document supporting global biodiversity objectives (Ministère des Affaires étrangères et européennes, 2010). In Germany, development policy is aligned with the MDGs. Within its focus on MDG7 on environmental sustainability the Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ) prioritises five issues of which one is biodiversity. The agency’s biodiversity strategy (BMZ 2008) notes “the core philosophy is to make a connection between conservation of biodiversity and poverty reduction”. It also stresses that biodiversity is not just a field of action in its own right but also needs to be mainstreamed into other development projects and programmes. Similarly the Austrian Development Agency (ADA) prioritises mainstreaming of biodiversity as well as direct support to conservation projects (ADA 2003).

**Table 1. Best practice in linking biodiversity and poverty reduction in selected PRSPs**

Country	Best practice examples
Bangladesh	Increasing access to natural resources for rural poor is an essential element of the process of reducing poverty in the rural areas. Rents from public commons, if captured by the poor, can help them initiate a process of capital accumulation that can help to pull them out of poverty and integrate them into the mainstream economy.
Bolivia	Community participation will be promoted in the planning, management and administration of protected areas, with the assumption that their management must be approached as a joint undertaking of the State and civil society... Efforts will be developed to link the management of protected areas to indigenous and peasant views on the management of territory and natural resources.
Kenya	To strengthen the linkages with the rest of the economy and make tourism pro-poor, efforts will be made to: foster community-based and eco-tourism...; strengthen community-based wildlife conservation, adopt an appropriate compensation policy and take measures to reduce human-wildlife conflicts; provide guidance, access to credit, and incentives to small and medium enterprises...
Lao PDR	Improving the management of natural resources by means of increased participation and protection through: <ul style="list-style-type: none"> <li>Strengthening participation, especially by the poor, in the preparation and implementation of national and local plans, policies and strategies;</li> <li>Jointly managing environmental services and resources with the poor through strengthening community management of environmental resources;</li> <li>Protecting access to the critical resources which the poor already have (e.g. entitlements to land, water, trees, pastures and fishing grounds);</li> <li>Expanding the natural asset base of the poor (e.g. community forest rights);</li> <li>Reducing subsidies for environmental services that benefit the less-poor;</li> </ul>
Liberia	The Government will undertake community-based natural resource management reforms...It will establish practical mechanisms to enable communities to become directly involved in forest management and to participate in the equitable sharing of benefits stemming from commercial logging...It will make special efforts to create new opportunities for women in the forestry sector.
Rwanda	Special attention will be paid to sustainable land tenure security through the planning and management of land registration and rational land use, soil and water conservation, reforestation, preservation of biological diversity and adaptation and mitigation against the impact of climate change.
Sri Lanka	Local communities will be encouraged to establish buffer communities on the outskirts of the national parks. Restrictions on visitor access to the parks will be eased and the private sector will be encouraged to invest in eco-tourism facilities. Local community organizations established in the park buffer zones will be provided a share of any eco-tourism earnings and will be trained and empowered to assist in wildlife preservation activity.
Tanzania	Sustainable use of natural resources through community-based natural resource management and enhanced district level planning will be pursued. Village titling and issuance of Certificate of Village Land will assist communities secure tenure over natural resources and encourage participatory forestry and wildlife management.

The agency which affords biodiversity the highest priority is the United States Agency for International Development (USAID). In 1986, Sections 118 and 119 of the Foreign Assistance Act were amended to place a greater emphasis on tropical forests and endangered species conservation in US development assistance. In 2004, Congress directed that \$155 million of development assistance funds be earmarked for biodiversity. This earmark has increased through the years to over \$190 million by 2008 (USAID 2009). Biodiversity is also integrated within USAID's forests programme – again mandated by the FAA – forest investments prioritizing those that are biologically significant and activities that conserve biodiversity.

USAID also stands out from other agencies in that its focus on biodiversity remains aligned with the traditional activities of the major conservation organizations. Whereas other agencies are aligning their biodiversity work more closely with climate change (for example AFD's focus on Central African forest management conservation) the emphasis of the USAID biodiversity programme is on landscape level conservation and on community based conservation. Criteria for support include an analysis of threats to biodiversity and the intent to positively impact biodiversity in biologically significant areas (USAID 2005).

A summary of the biodiversity focus of each agency is provided in Annex 1.

#### BIODIVERSITY IN PRSPS

PRSPs are not homogeneous, formulaic documents. A number are known domestically as socio-economic development plans, growth and development strategies, and so on. These are often routine development plans that have been adapted to incorporate poverty reduction issues in response to World Bank requirements. PRSPs are also intended to be rolling documents that are responsive to changing national conditions and priorities - of the 54 reviewed, 41 had at least one previous iteration. Furthermore, country coverage is not even. Given that PRSPs were originally developed as part of the International Monetary Fund's "Highly Indebted Poor Countries" process, it is perhaps not surprising that the majority of countries covered are from the poorest continent – 35 of the 54 reviewed are from Africa, 7 from Latin America, 7 from South Asia and 5 from South East Asia.

A country ranking showing the degree to which biodiversity-poverty links have been recognised within PRSPs and how this correlates with the biodiversity status of each country is provided in Annex 2. This shows that just over 25% (15) of PRSPs show a relatively high level of recognition of the importance of biodiversity (score of 2 or more out of 3); just under 25% (12) of PRSPs have a low level of recognition (score less than 1); and 50% (27) fall in between (score between 1 and 2).

All the PRSPs with the exception of Indonesia make reference to biodiversity (and the Indonesia PRSP is a very short, undeveloped interim document dating back to 2003). This is a slight improvement on the situation in 2007 where, as well as Indonesia, the Central African Republic, Gambia and Haiti included no reference to biodiversity (Roe 2007). Four countries – Central African Republic, Dominica, Guinea Bissau, and Kenya don't use the term "biodiversity" but do include reference to "forests" and/or "wildlife" and/or "nature". Just under half (26) of the PRSPs have a relatively narrow interpretation of biodiversity – the focus being on wildlife, forests or protected areas – but 13 interpret biodiversity in a broader sense noting the importance of genetic resources (e.g. Dominica) and agricultural biodiversity (e.g. Bangladesh, Nepal, Vietnam) and a further 14 recognise the link between biodiversity and ecosystem services (eg Cambodia, Lao, Liberia, Uganda, Zambia). Furthermore, over half the PRSPs (30) include some detailed insights into the importance of biodiversity. For example, in Bangladesh, "*Biodiversity is an asset for a nation*" and Uganda, "*Forests also provide a number of ecological services: biodiversity, climate regulation, soil and water conservation, and nutrient recycling. These are important for agricultural performance and people's livelihoods.*"

The role of poverty as a driver of biodiversity loss receives surprisingly little attention – 20 PRSPs make no mention of this and only 12 provide any kind of detail. Conversely, the role of biodiversity in contributing to poverty alleviation is well recognized – the majority (47) of PRSPs address this. At one end of the scale is recognition of the dependence of the poor on biodiversity and the role it plays in supporting subsistence livelihoods. The Democratic Republic of Congo PRSP, for example, notes "*Some 40 million of the poorest Congolese depend upon the forest for their food, materials, energy, and medicine.*" Similarly Mozambique: "*Most of Mozambique's*



population depends on natural resources for subsistence and income.” The Bangladesh PRSP provides more detail: “Public commons includes natural resources such as land, open water resources in wetlands, forests, grasslands, grazing land, reed land, khas land, peat land, rivers, estuaries and the open seas with the characteristic that people in general have customary rights and access to them. These are sources of livelihood for the poor including the hardcore poor. They collect firewood, fodder and construction materials, fruits and vegetables for daily consumption from, graze animals upon, and catch fish in these resources. The dependence on common resources is very high: some 80 percent of the population depends, to some extent, on the utilization of these resources or on processing the resultant products. Thus public commons may be one of the most important safety nets available to the poor particularly in the rural areas, provided these are managed in a sustainable manner.”

At the other end of the scale is recognition of the role that biodiversity can play in contributing to national level GDP and foreign exchange earnings. Bolivia, for example, notes: “Preliminary studies indicate that within a period of approximately 15 years the contribution of biodiversity could come to represent an increase of about 10 percent in GDP, if activities are developed in ethnic and ecotourism, mitigation of climate change and biodiversity services relating to biotechnology, ecological products, and others.” Biodiversity-based tourism is particularly significant. In Uganda: “Wildlife based tourism has an annual economic value of \$163 million, employing around 70,000 people directly.” In other cases, emphasis is placed on the fact that previously the pursuit of economic growth has resulted in biodiversity loss due to unsustainable practices – particularly in forestry. There is increasing recognition that in the longer term this has negative implications for the economy - the Sri Lanka PRSP estimates that unsustainable resource use comes at a cost to the national economy of around 2.5% of GDP; the Zambia PRSP highlights that “ecosystem services are consistently being degraded or used unsustainably. This has serious ramifications for the sustainability of the economy.” Nowhere is there mention of *wealth* as a driver of biodiversity loss either within a country or to meet the consumption demands of export partners.

In between the two extremes of meeting local level subsistence needs and contributing to national GDP earnings is widespread recognition of the potential of biodiversity to contribute to local economic development – particularly through community forestry, community wildlife management, community tourism and so on. A number of countries highlight in-depth awareness of the conditions necessary to generate meaningful benefits through these approaches. Table 1 highlights some best practice examples.

It has been noted elsewhere that the value of biodiversity and ecosystem services are unrecognized – or at best under-valued – in national accounts (TEEB 2008). One might expect however, that countries that were particularly rich in biodiversity might pay more attention to it as a potentially valuable resource than others. However, there is no correlation between the attention paid to biodiversity in the PRSP and a country’s biodiversity status (Annex 2). Amongst the 15 PRSPs that score highly (score = 2 and above) for attention to biodiversity, only seven are amongst the 50 most biodiverse countries (Caldecott *et al.* 1994). Four of the most biodiverse countries are amongst the lowest scoring PRSPs (score = less than 1).

Of course the correlation is also determined by the indicators used for high biodiversity. Caldecott *et al.* (1994) focus on species richness and do not take into account genetic diversity and/or ecosystem services which may make a much more significant contribution to poverty reduction at the local level than species diversity (Vira and Kontoleon - in press; Leisher *et al.* - in press). Indeed it is clear from the analysis that the size or density of the rural population that is most directly dependent on biodiversity and/or the existence of a natural resource-based economy appear to be more important determinants of the attention paid to biodiversity in the PRSP than the species richness of a country. Rwanda, for example, scores the highest out of the PRSP sample for attention to biodiversity (score 2.75).

## Annex 2: Country ranking on attention to biodiversity within PRSPs

No	Country	Date	Score	High biodiversity country? <sup>1</sup>	Rural population (% of total) <sup>2</sup>
1	Rwanda	2007	2.75	N	81.7
2	Bolivia	2001	2.50	Y	34.4
3	Democratic Republic Congo	2006	2.50	Y	66.0
4	Uganda	2005	2.50	Y	87.0
5	Bangladesh	2005	2.25	N	72.9
6	Lao PDR	2006	2.25	Y	69.1
7	Liberia	2008	2.25	N	39.9
8	Senegal	2006	2.25	N	57.6
9	Zambia	2006	2.25	Y	64.6
10	Benin	2007	2.00	N	58.8
11	Burkina Faso	2004	2.00	N	80.4
12	Mozambique	2006	2.00	N	63.2
13	Nigeria	2005	2.00	Y	51.6
14	Nicaragua	2005	2.00	N	43.3
15	Tanzania	2005	2.00	Y	74.5
16	Cameroon	2003	1.75	Y	43.2
17	Sri Lanka	2002	1.75	Y	84.9
18	Lesotho	2006	1.75	N	74.5
19	Madagascar	2007	1.75	Y	70.5
20	Timor-Leste	2002	1.75	N	72.7
21	Honduras	2001	1.50	N	52.1
22	Dominica	2006	1.50	N	26.1
23	Niger	2007	1.50	N	83.5
24	Guinea	2007	1.50	N	65.6
25	Vietnam	2005	1.50	Y	72.2
26	Bhutan	2004	1.25	N	65.5
27	Comoros	2005	1.25	Y	71.9
28	Congo	2004	1.25	Y	38.7
29	Gambia	2006	1.25	N	43.6
30	Kenya	2004	1.25	Y	78.4
31	Malawi	2006	1.25	N	81.2
32	Maldives	2007	1.25	N	62.1
33	Mauritania	2006	1.25	N	59.0
34	Nepal	2003	1.25	N	82.8
35	Cambodia	2005	1.25	Y	78.4
36	Cote d'Ivoire	2009	1.00	Y	51.2
37	Ethiopia	2002	1.00	Y	83.0
38	Ghana	2005	1.00	Y	50.0
39	Pakistan	2003	1.00	N	63.8
40	Sao Tome and Principe	2002	1.00	Y	39.4
41	Afghanistan	2008	1.00	N	76.0
42	Grenada	2006	1.00	N	69.2
43	Burundi	2006	0.75	N	89.6
44	Cape Verde	2008	0.75	N	40.4
45	Central African Republic	2008	0.75	Y	61.4
46	Chad	2003	0.75	N	73.3
47	Djibouti	2009	0.75	N	26.1
48	Guinea-Bissau	2002	0.75	N	70.2
49	Mali	2006	0.75	N	67.8
50	Sierra Leone	2005	0.75	N	62.2
51	Togo	2008	0.75	N	58.0
52	Guyana	2002	0.50	Y	71.6
53	Haiti	2007	0.50	Y	53.2
54	Indonesia	2003	0.00	Y	48.5

Sources: <sup>1</sup> Caldecott *et al.* (1994)

<sup>2</sup> World Bank Data <http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS> - based on 2008 World Development Indicators

It has an extremely high rural population (81.7%) and wildlife tourism is a central pillar of the national economy. It is not surprising that biodiversity conservation is seen as fundamental to poverty reduction. More surprising are the low scoring PRSPs from the most biodiverse countries that *also* have a high rural population – Central African Republic and Guyana stand out in this regard. In both cases the links between biodiversity and poverty reduction are mentioned but there is no elaboration of strategies to enhance these links or the conditions necessary to maximize local benefits.

## CONCLUSIONS: WHITHER BIODIVERSITY IN DEVELOPMENT?

It is clear that biodiversity has declined on the agenda of some international development assistance agencies. Time series data are not available to identify which of the 23 DAC members had previously prioritized biodiversity prior to the poverty reduction priority of the late 1990s but there are some clear examples. The Swedish International Development Cooperation Agency Sida, for example, previously had a policy paper on biodiversity (SIDA 2000) as did the UK Department for International Development (DFID 2001). Indeed, in the DFID, a 1994 study by IIED noted that the UK Overseas Development Administration (the predecessor to DFID) had supported wildlife conservation for many years and in 1993 had begun work on developing a Wildlife Strategy for Africa to guide future support to the sector (IIED 1994). A later paper (DFID 2002) however noted that “since the mid-1990s wildlife-linked work has been receiving less attention within DFID” and that “wildlife is not seen as central to poverty reduction.”

In some cases, however, the decline of biodiversity is correlated with an increasing emphasis on climate change rather than on poverty reduction. For example, in 2009 the Swiss Development and Cooperation (SDC) website identified “Environment” as one of ten priority themes, with biodiversity, climate change and desertification the key issues under that theme. The environment theme has now changed to “Climate and Environment” and biodiversity is not mentioned.

Conservation organisations may fear that biodiversity has fallen off the development agenda because changes in development policy over the last decade have made it increasingly difficult for them to access development assistance funding. The role of conservation organisations as implementing agencies for development assistance funds has, no doubt, declined significantly. But given that development assistance is now centered around country-led development, the policies of the development assistance agencies should therefore be of less concern than the policies of the developing countries that they support – particularly where these may still favour GDP growth based on natural resource exports at the expense of local level biodiversity conservation and poverty reduction. While there is clearly room for improvement, many of the PRSPs reviewed show an encouraging level of biodiversity integration including some sophisticated analysis of biodiversity – poverty linkages and clear articulation of the legislative and institutional framework required to maximise the synergies between biodiversity conservation and poverty reduction.

Good policy is, however, only the first step. Confidence that biodiversity really is part of the development agenda will only come about when good policy is translated into good practice. This requires a strong civil society to ensure that policy recommendations are implemented on the ground and to hold government to account when they are not. This highlights a key role for conservation organisations in helping build civil society capacity. This is no mean task – especially in countries where civil society strength is perceived as a threat to government. However it is an issue which is high on the “good governance” agenda of development assistance agencies, even if biodiversity is not.

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