



**ENVIRONMENTAL GOVERNANCE  
AND DEVELOPMENT COOPERATION**  
ACHIEVEMENTS AND CHALLENGES

*Helle Munk Ravnborg, Rasmus Kløcker Larsen,  
Jon Lausten Vilsen and Mikkel Funder*

DIIS REPORT 2013:15

*A DIIS ReCom publication*



© Copenhagen 2013, the authors and DIIS  
Danish Institute for International Studies, DIIS  
Strandgade 56, DK-1401 Copenhagen, Denmark  
Ph: +45 32 69 87 87  
Fax: +45 32 69 87 00  
E-mail: [diis@diis.dk](mailto:diis@diis.dk)  
Web: [www.diis.dk](http://www.diis.dk)

Cover photo: © Helle Munk Ravnborg  
Layout: Allan Lind Jørgensen  
Printed in Denmark by Vesterkopi AS  
ISBN 978-87-7605-574-5 (print)  
ISBN 978-87-7605-575-2 (pdf)  
Price: DKK 50.00 (VAT included)  
DIIS publications can be downloaded  
free of charge from [www.diis.dk](http://www.diis.dk)  
Hardcopies can be ordered at [www.diis.dk](http://www.diis.dk)

*This report is part of the Research and Communication Programme (ReCom) on international development cooperation, funded by Danida (Danish Development Agency) and Sida (Swedish Development Agency), and undertaken by a number of institutions including UNU-WIDER and DIIS. For more information on the programme, please see <http://recom.wider.unu.edu/> and <http://www.diis.dk/recom>.*

*The analysis and conclusions in the report do not necessarily reflect the views of any of these institutions and are the sole responsibility of the author(s).*

**Helle Munk Ravnborg**, PhD, Senior Researcher, DIIS  
[hmr@diis.dk](mailto:hmr@diis.dk)

**Rasmus Kløcker Larsen**, PhD, Research Fellow, Stockholm Environment Institute (SEI)  
[rasmus.klocker.larsen@sei-international](mailto:rasmus.klocker.larsen@sei-international)

**Jon Lausten Vilsen**, MSc, Mploy; formerly employed as Research Assistant, DIIS  
[jlvs@memploy.dk](mailto:jlvs@memploy.dk)

**Mikkel Funder**, PhD, Senior Researcher, DIIS  
[mfu@diis.dk](mailto:mfu@diis.dk)

## Contents

Abstract	4
1. Introduction	5
2. Methods and data	8
3. Establishing a legal and institutional framework for international and national environmental governance	11
4. The role of development assistance in the establishment of a legal and institutional framework for international and national environmental governance	16
5. Challenges ahead for environmental governance and development cooperation – Lessons from the case studies	27
Environmental governance as a new policy field	27
Fashions and blind spots may hamper the effective contribution of development cooperation to environmental governance	29
The importance of international environmental conventions	32
6. Conclusions – how development cooperation may contribute to meet the challenges ahead	35
References	38

## **Abstract**

Environmental governance can be understood as ‘the establishment, the reaffirmation or change of institutions (policies, laws, procedures, practices and organisations) to resolve conflicts – overt or latent – between actors over environmental resources. Environmental governance takes place at many levels of society through statutory as well as through customary institutions and with the involvement of a wide range of actors. As societies change and new economic actors as well as new ways of using natural resources develop, the need for the establishment of a statutory framework for environmental governance is accentuated. In 1987, when the Brundtland Commission’s report *Our Common Future* was published, only nine out of 103 developing countries counted on national environmental legislation. In 2008, this number had grown to 86. In addition, also a framework for international environmental governance has been developed. This report provides an overview of these achievements and examines the extent to which development cooperation has contributed. Moreover, based on case studies from Kenya, Nicaragua, Niger and Vietnam, the report summarises the challenges ahead for environmental governance and development cooperation.

*Without international support, we would never have been able to address the environmental problems we have in my district.*

District environmental officer, San Pedro de Lóvago,  
Nicaragua, April 2012

## **I. Introduction**

Environmental governance and concerns with environmental impacts of development are often portrayed as issues imposed upon developing countries by donor agencies and governments in high-income countries. However, seen from the point of view of the many men, women and children who every day apprehensively use water that they fear is contaminated, breathe air which they know is filled with particles from the smoke of wood stoves and fumes of cars, or construct their houses in places they know are prone to landslides or inundation, as well as to the thousands of local mayors and environmental officers who carry the everyday responsibility of environmental governance and attending the environmental concerns of the populations they are meant to serve, the case is rather that development cooperation has contributed by voicing environmental concerns that unfortunately often lack recognition and support from the political and economic elites.

Despite the generally low ecological footprint of people living in developing countries (WWF, 2012), many people in developing countries suffer from environmental problems caused by a combination of low levels of investment in human wellbeing, locally as well as globally environmentally harmful production practices, and poor environmental governance.<sup>1</sup>

Water pollution is estimated to cause an average of 1,035 deaths per million people in countries ranked low according to the Human Development Index compared to 212 deaths per million people in countries middle ranked according to the Human Development Index. Likewise, indoor air pollution, for example from the use of firewood for cooking and heating, is estimated to cause an average of 696 deaths per million people in low human development countries and 357 deaths per million people in middle human development countries (UNDP, 2011: table 7). On top

<sup>1</sup> On average, a person living in a low-income country was estimated to have an ecological footprint corresponding to 1.14 hectare in 2008, primarily through his or her non-animal food consumption while an average person living in a high-income country has an ecological footprint corresponding to 5.60 hectares, primarily through his or her carbon emissions (WWF, 2012: table 2).

of that, each year diseases and deaths are caused by not having access to sufficient quantities of water, which prevents people from maintaining proper hygiene practices.

People in developing countries also appear to be the hardest hit in terms of health problems associated with the use of hazardous chemicals. According to Brodesser and colleagues (2006:4), “almost half of the world’s workers are involved in some way in agricultural production, with the greatest concentration of these in developing countries. While developing countries account for just one third of global pesticide consumption, the vast majority of pesticide poisonings occur in these countries. Studies conducted by the International Labour Organisation (ILO) suggest that pesticide misuse causes 14% of occupational injuries in agriculture and, in some countries, as much as 10% of fatalities. Moreover, the use of pesticides, particularly herbicides, is rapidly increasing in many developing countries and as noted by Brodesser and colleagues, “[m]any of the older, more hazardous, products account for a high proportion of sales in Latin America including 2,4-D, paraquat, methamidophos, methomyl, endosulfan and chlorpyrifos.” (Brodesser *et al.*, 2006:4). This constitutes a significant environmental and health problem, not only locally where the pesticides are used but also, as is increasingly recognised, globally as pesticide residues may cause brain and other damage to consumers of the food products the pesticides are used to protect.<sup>2</sup>

The most recent addition to this disturbing list of global inequalities in terms of exposure to environmental threats is the suggestion that populations in developing countries are likely to be the hardest hit as global warming progresses, both in terms of human wellbeing (e.g. food security and access to water) and loss of lives, due to yet more unpredictable rainfall patterns including increased likelihood of extreme events, and also due to mitigation measures to reduce greenhouse gas (GHG) emissions, such as the REDD<sup>3</sup> initiative and the substitution of fossil fuels with biofuels, which put increasing pressure on forest land, crop land and water in developing countries.

Yet efforts to promote the coupling of environment and development as an agenda relevant to developing countries have been far from smooth. While support from the developing countries was needed to establish a legal and institutional framework through which to address transboundary environmental problems (United Nations, 1971), governments in developing countries have tended to be more cautious in their

<sup>2</sup> <http://brainrain.dk/>

<sup>3</sup> Reduced Emission from Deforestation and Forest Degradation.

support for this agenda (*ibid.*; World Commission for Environment and Development, 1987; OECD, 2000).

In this context development assistance, sometimes in confluence or even cooperation with civil society groups and social and environmental movements in developing countries such as the Chipko movement in India, the anti-mining movements in Latin America, the Nemagon movement in Nicaragua, etc. has been crucial in promoting and sustaining this agenda in developing countries and in financing the development of the legal and institutional mechanisms in developing countries that are necessary to make international environmental governance meaningful.

This report focuses upon the achievements of developing countries with respect to establishing national institutional frameworks, including legal frameworks, for environmental governance, and the extent to which development assistance has contributed to these achievements.

The report combines a general overview of achievements in environmental governance and the contribution of development assistance (Sections 3 and 4) with insights gained through four brief case studies (Section 5). However, first the following section briefly describes the methods and data used in the report (Section 2).

## 2. Methods and data

As a first and crude indicator of national efforts to develop frameworks for environmental governance, the Ecolex database was revised with reference to 103 countries classified by the World Bank as 'developing' in order to identify whether general environmental legislation had been developed and in which year such legislation was first passed. The Ecolex database on environmental law is operated jointly by FAO, IUCN and UNEP, and collates environmental legislation ranging from treaties to legislation at national and provincial level and court decisions.<sup>4</sup>

Twenty-one countries were selected from among the countries which, during the period from 1992 to today (or parts of this period), have been Danida or DanCED partner countries,<sup>5</sup> and information on the existence and approval of sector or resource specific legislation was retrieved from the documents contained in the Ecolex database. Information about the existence of implementing guidelines was also retrieved.

Alongside efforts to develop national environmental governance frameworks, efforts have been ongoing to establish an international environmental governance framework in order to deal with environmental problems which are transboundary in their causes or their consequences. According to UNEP, there are more than 500 international treaties and other agreements that relate to the environment, of which 323 are regional (UNEP 2012a:464). Among these the three so-called 'Rio Conventions', i.e. the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention to Combat Desertification (UNCCD), are the most well known.

Signatories to such conventions commit themselves to developing the necessary legislative and administrative instruments to enable them to comply with the conventions, as well as assisting other signatories, primarily developing countries, in meeting their obligations towards the conventions. In this way, the multilateral environmental agreements provide the international legal and political framework for environmental collaboration, including through development cooperation. In this report, we focus upon the three Rio Conventions and the Stockholm Convention on Persistent Organic Pollutants (POPs), which together with earlier international

<sup>4</sup> [www.ecolex.org](http://www.ecolex.org).

<sup>5</sup> Danish Cooperation on Environment and Development, a programme launched in response to pledges made by Denmark at the 1992 Rio summit.



conventions such as CITES on International Trade in Endangered Species, the World Heritage Convention and the Ramsar Convention on Wetlands constitute the core of environmental treaties shaping the global environmental legal framework (UNEP, 2012a). Besides registering the year of ratification of these conventions, we examine the extent to which associated national sector or resource specific legislation has been passed and to which extent the conventions have spurred international development cooperation.

Establishing ‘the other side of the equation’ (i.e. to which extent has development assistance contributed to achievements made in terms of establishing national legislative and institutional frameworks for environmental governance?) turns out to be rather complicated, even without digging into complex issues of demonstrating causal relationships between development assistance provided and achievements in terms of environmental governance frameworks. As recent research has established (Hicks *et al.*, 2008; Roberts *et al.*, 2009) surprisingly little is known about the volume of development assistance allocated for different sectors or purposes. Reporting systems vary among donor agencies, which makes direct comparison impossible. Thus any estimate of overall flows of development assistance according to purpose has to rely directly or indirectly upon the reporting of donor agencies to the OECD DAC Creditor Reporting System (CRS) according to a set of pre-defined purpose codes.<sup>6</sup> Noting a series of shortcomings in the OECD DAC database, e.g. with respect to missing project coding, and drawing upon various official sources such as annual reports and project documents from bilateral as well as multilateral donor agencies, the AidData project set out to improve upon the OECD DAC CRS database in order to provide a more complete picture of flows and allocation of development assistance (Hicks *et al.*, 2008; Roberts *et al.*, 2009; AidData, 2010; Tierney *et al.*, 2011). These improvements make AidData the most comprehensive database on aid allocations. Drawing upon the AidData database,<sup>7</sup> this report focuses upon environmental development assistance provided to the above-mentioned 21 countries.

Despite the improvements made, a significant part of the aid activities to the selected 21 Danida and DanCED partner countries contained in the AidData database, namely 75%, contained no information about the monetary value of the donor commitment. As our primary concern is the content of environmental aid rather than its monetary value, we have chosen to use the number of aid activities as a proxy for

<sup>6</sup> <http://www.oecd.org/dac/aidstatistics/aidstatisticsanddatabasesallaboutnumbers-whospendswhatwhere.htm>.

<sup>7</sup> Version 1.9.1, released February 2010. A version 2.1 of AidData was released in February 2013.

trends in environmental aid. Moreover, despite the fact that AidData allows for the allocation of multiple purpose codes to an aid activity and thus better reflects their complex nature, the level of detail contained in the database still does not make it possible to reflect the type of environmental contribution, for example, of aid activities having a broader focus. Thus, the AidData database does not enable an exhaustive identification of aid activities associated with specific legislative and administrative achievements in a specific country.

To compensate for this shortcoming and also to shed light upon possible relationships between, on the one hand, legislative and administrative achievements with respect to establishing a framework for national – and international – environmental governance and, on the other hand, the efforts made with support from development cooperation, case studies were carried out in four countries, selected as a subset of the 21 Danida and DanCED partners countries, namely Kenya, Nicaragua, Niger and Vietnam. In addition to a more careful review of the documentation of donor supported activities, interviews were conducted with key officials, both government and donor agency officials, as well as with independent observers, in order to obtain accounts of the extent and the way in which development assistance had contributed to the achievements made in terms of establishing a national environmental governance framework.

Secondly, in order to provide a deeper understanding of the importance of such contributions and also of the actual environmental governance achievements made, a thematic case study was conducted in each of the four countries. In Kenya, the thematic case study deals with achievements made with respect to local-level implementation of the national environmental framework (Funder and Marani, 2013). In Nicaragua, the thematic case study deals with the legal and institutional framework for regulating the trade and use of pesticides (Bolt *et al.*, forthcoming; Ravnborg, 2013). In Niger, the thematic case study examines the achievements gained with respect to developing a legal and administrative framework for environmental governance of uranium mining and the notably limited support provided through development assistance in this regard (Larsen and Mamosso, 2013). The Vietnam thematic case study is of the achievements made with respect to establishing a legal and administrative framework for coastal zone management as an element in climate change adaptation strategies (Vu, 2012). The case studies combine the revision of secondary material with interviews conducted by local consultants, contracted for a two to three-week period, in Kenya accompanied by Mikkel Funder, and in Niger accompanied by Rasmus Kløcker Larsen.

### **3. Establishing a legal and institutional framework for international and national environmental governance**

The first steps towards establishing environment as an issue to be addressed in the context of development cooperation and more broadly as an issue for international cooperation were taken at UN conference on the Human Environment held in Stockholm in 1972.

During the 1960s it had become increasingly clear that the process of industrialisation and economic growth that had been achieved primarily in Europe and North America had come with environmental costs, and that many of the environmental problems were not contained within the boundaries of the nations where they were produced but were transboundary in nature. Examples of such transboundary environmental problems include the depletion of the ozone layer and the pollution of international waters. This made the environment an issue requiring international cooperation and thus motivated the first UN conference on the environment.

The developing countries were, however, hesitant towards the conference. They feared, “the humanitarian concern for environment [could] far too easily become a selfish argument for greater protectionism” (United Nations, 1971: para. 4.4) that would hinder or slow down their economic development and that it would also lead to a diminution of aid resources from the developed countries and distort aid priorities (*ibid.* para 4.8–4.9).

In an effort to secure the support of developing countries for the conference, a panel of experts from developing and industrially advanced countries was convened to discuss the issue of ‘development and environment’ – the so-called ‘Founex Panel’ (United Nations, 1971). The panel stated that “the current concern with environmental issues has emerged out of the problems experienced by the industrially advanced countries” and that “these problems are themselves very largely the outcome of a high level of economic development” (*ibid.*: para. 1.2). Moreover, the panel made a distinction between such “environmental problems caused by the process of development itself” as had been experienced primarily in the industrially advanced countries and “environmental problems that reflect the poverty and the very lack of development” experienced primarily in developing countries (*ibid.*). “In large measure”, it was argued, “the kind of environmental problems that are of

importance in developing countries are those that can be overcome by the process of development itself” (*ibid*: para. 1.5).

In this way, the panel aimed to eliminate the perceived contradiction between development and environment. To further ease the potential contradiction between development and environment, the panel argued that the costs associated with integrating environmental concerns into development planning in developing countries should be funded through additional development assistance, over time perhaps even administered through a special fund. It took 20 years for these ideas to mature and materialise with the establishment of the Global Environment Facility (GEF) in 1991.

The Stockholm conference succeeded in producing a global agreement on the human environment.<sup>8</sup> First of all, the conference succeeded in establishing ‘environmental protection’ as an issue that affects the wellbeing of all peoples and economic development around the world. All human beings, it stated, have the *right* – and desire – to live in a safe environment and local and national governments have the duty to ensure this by developing environmental policy and action within their jurisdiction and, where necessary, engaging in international cooperation to effectively address transboundary environmental problems.<sup>9</sup> Second, the conference explicitly addressed the North–South divide (which existed at the time and, some would say, still exists) with respect to environmental protection by stating that the “environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all.”<sup>10</sup> Although the developing countries did not succeed in making the industrially advanced countries commit to providing additional funding to address environmental concerns (Udenrigsministeriet, 1972), the conference declaration did encourage the provision of environmental development assistance in addition to ‘conventional’ development assistance by stating that “resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries and any costs which may emanate

<sup>8</sup> *Declaration of the United Nations Conference on the Human Environment*. (<http://www.unep.org/Documents/multilingual/Default.asp?DocumentID=97&ArticleID=1503>, consulted 20 August 2012).

<sup>9</sup> Several of the principles adopted at the conference instructed states to take steps “so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population” (*ibid*. Principle 13) and to “entrust appropriate national institutions with the task of planning, managing or controlling the environmental resources of States with a view to enhance environmental quality” (*ibid*. Principle 17).

<sup>10</sup> *Ibid*. Principle 11.

from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.”<sup>11</sup> Moreover, the conference reaffirmed that while “States have the sovereign right to exploit their own resources pursuant to their own environmental policies,” they at the same time have the “responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”<sup>12</sup> – a principle which is still vividly invoked and debated, most recently in the context of negotiations on the financing of adaptation to climate change.

Although it established environmental protection as an area for international cooperation falling within the mandate of the United Nations, not much progress was made on the ground in developing countries in the wake of the Stockholm conference. Despite the plea to governments around the world to establish legal frameworks, policies, planning procedures, etc. – what was also referred to as the ‘environmental machinery’ – and to development agencies to help finance such efforts, only four developing countries (see table 1 and figure 1) developed and approved such legislation in the decade following the Stockholm conference.

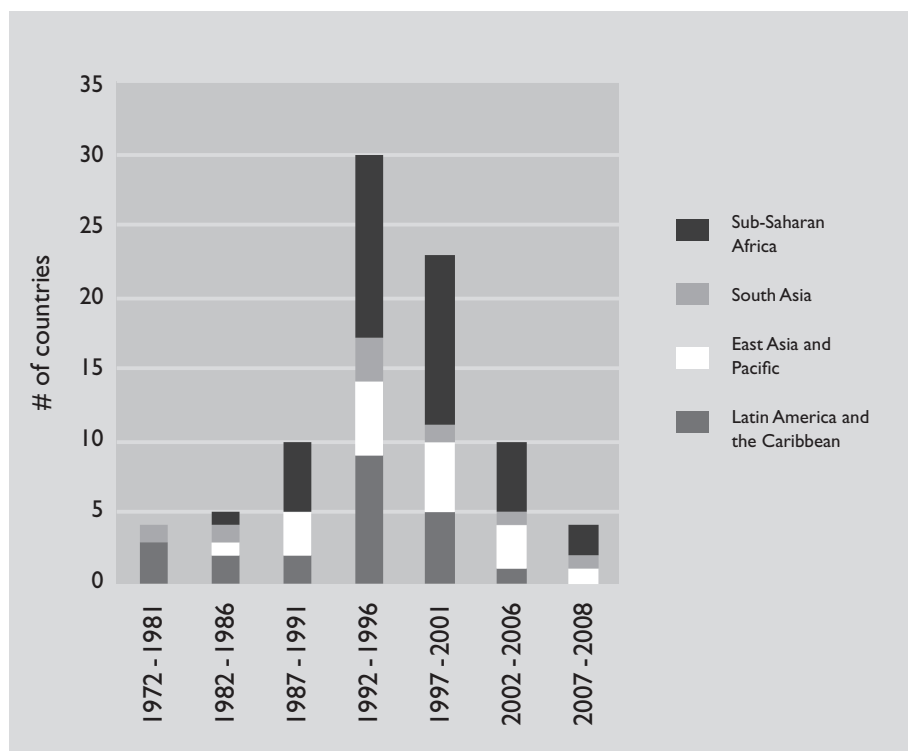
In an effort to alter this situation, in 1983 the United Nations appointed a World Commission for Environment and Development, the so-called ‘Brundtland Commission’, which launched the concept of sustainable development. Apart from proposing long-term environmental strategies for achieving sustainable development by the year 2000 and beyond, the commission set out to define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment. Moreover, the commission was asked to suggest ways and means for strengthening international environmental cooperation, including cooperation among developing countries as well as between countries at different stages of economic and social development. In its report (WCED, 1987), the commission stressed the urgent need for strengthening environmental agencies in developing countries and urged bilateral and multilateral organisations to be prepared to provide increased assistance for institutional development. Judging from figure 1, this request was met. In the years following the publication of the Brundtland

<sup>11</sup> *Ibid.* Principle 12.

<sup>12</sup> *Ibid.* Principle 21.

Report, ten developing countries prepared and approved general environmental legislation, while real pace was gained in the wake of the subsequent UN Conference on Environment and Development held in Rio de Janeiro in 1992 with 30 developing countries approving their first environmental legislation between 1992 and 1996 (figure 1 and table 1). By the end of 2008 most developing countries (86 countries out of the 103 developing countries in Latin America and the Caribbean, East Asia and the Pacific, South Asia and sub-Saharan Africa) had general environmental legislation in place.

Figure 1. General environmental legislation – year of approval of first environmental legislation for developing countries by region (N=86 developing countries; 17 countries had no general environmental legislation in 2008 according to Ecolex)



Source: Own illustration based upon revision of environmental legislation registered in the Ecolex database ([www.ecolex.org](http://www.ecolex.org)), operated jointly by FAO, IUCN and UNEP, consulted between September 2011 and June 2012 with reference to 103 countries in Latin America and the Caribbean, East Asia and the Pacific, South Asia and sub-Saharan Africa, classified by the World Bank as developing countries.<sup>13</sup>

<sup>13</sup> <http://siteresources.worldbank.org/DATASTATISTICS/Resources/CLASS.XLS>.

Table I. General environmental legislation – year of approval of first environmental legislation for developing countries by region (N=103 countries)

	Latin America & the Caribbean (n=28)	South Eastern Asia & the Pacific (n=22)	South Asia (n=8)	Sub-Saharan Africa (n=45)
1972 – 1981 (n=4)	Brazil* Colombia Venezuela		Sri Lanka	
1982 – 1986 (n=5)	Guatemala Paraguay	Marshall Islands	India*	Senegal
1987 – 1991 (n=10)	Mexico* Peru	China* Philippines* Samoa		Guinea Mali Mauritius Togo Zambia
1992 – 1996 (n=30)	Argentina Belize Bolivia Chile Costa Rica Guyana Honduras Nicaragua Uruguay	Malaysia* Federated States of Micronesia Mongolia Thailand* Vietnam	Bangladesh Maldives Nepal	Benin Burkina Faso Cameroon Cape Verde Comoros Republic of the Congo/DRC Côte d'Ivoire Eritrea Gabon The Gambia Malawi Seychelles Uganda
1997 – 2001 (n=23)	Dominica Dominican Republic Ecuador El Salvador Panama	Indonesia Kiribati Laos Papua New Guinea Solomon Islands	Pakistan	Angola Burundi Chad Kenya Lesotho Mauritania Mozambique Niger São Tomé and Príncipe Sierra Leone South Africa* Sudan
2002 – 2006 (n=10)	Haiti	Cambodia Fiji Vanuatu	Afghanistan	Liberia Rwanda Swaziland Tanzania Zimbabwe
2007 – 2008 (n=4)		Tuvalu	Bhutan	Central African Republic Namibia
Had not passed general environmental legislation in 2008 or before (n=17)	Antigua and Barbuda Grenada Jamaica Saint Lucia Saint Vincent and the Grenadines Suriname	Myanmar Palau Timor-Leste Tonga		Botswana Ethiopia Ghana Guinea-Bissau Madagascar Nigeria Somalia

*Italics* signify that the country is selected from among the 21 current or former Danida or DanCED partner countries.

\* Newly industrialised country as of 2011. – Source: As figure 1.

#### **4. The role of development assistance in the establishment of a legal and institutional framework for international and national environmental governance**

Development assistance has contributed to this process of establishing a national environmental legislative framework in developing countries, both by supporting the process of preparing the legislative framework and by offering the prospect of subsequent support for its implementation. Many bilateral (among them Danida) and multilateral donor organisations answered the call from the Brundtland Commission and the 1992 UN Conference on Environment and Development to integrate environmental concerns into their project portfolio, including through financial commitments to the Global Environment Facility (GEF). Based on OECD DAC's creditor reporting system (CRS), complemented by AidData, table 2 shows the number of aid activities offered to the 21 current or former Danida or DanCED partner countries in support of general environmental protection, including environmental policy and administrative management. The table is testament to an almost exponential growth in the number of aid agreements in the years following the publication of the report of the Brundtland Commission up through to 2006 with a slight tendency towards stagnation from 2007 onwards.

Apart from its appeal to national governments to put in place national environmental legislation and agencies and to bilateral and multilateral organisations to help finance this strengthening, the Brundtland Commission recommended the development of an international convention on environmental protection and sustainable development. This recommendation was not followed. Instead the participants at the UN Conference on Environment and Development adopted a declaration, which is less legally binding, namely the Rio Declaration on Environment and Development (1992), which serves as an overall framework for international environmental cooperation. Moreover, three separate conventions known as the Rio Conventions were prepared and entered into force in the years following the 1992 Rio Conference, namely the Convention on Biological Diversity (CBD) (entering into force in late 1993), the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention to Combat Desertification (UNCCD) (both entering into force in 1994). Later, the Stockholm Convention on Persistent Organic Pollutants (POPs) was developed, which together with the Basel and the Rotterdam Conventions, aims to regulate the production, use, trade, transport and disposal of hazardous chemicals and pesticides. The Stockholm Con-



Table 2. Aid activities aimed at general environmental protection, policy and administrative management, 1982–2009 for 21 Danida partner countries,<sup>a, b</sup>  
Number of aid activities by year of commitment

Country	Year of 1 <sup>st</sup> environmental legislation	Number of aid activities for environmental protection, policy and administrative management						
		1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2009	All years
Bangladesh	1995	0	2	16	26	46	39	129
Benin	1992	1	1	3	13	36	18	72
Bhutan	2007	0	2	8	8	23	23	64
Bolivia	1992	0	3	12	39	70	96	220
Burkina Faso	1994	0	4	12	28	39	59	142
Cambodia	2006	0	0	4	14	66	44	128
Ghana	–	0	0	10	23	48	51	132
Indonesia	1997	4	17	25	49	121	119	335
Kenya	1999	1	7	18	27	96	78	227
Malaysia	1974	0	1	4	9	40	26	80
Mali	1991	0	2	7	31	34	57	131
Mozambique	1997	0	3	19	45	33	32	132
Nepal	1996	2	7	14	19	66	53	161
Nicaragua	1996	0	1	19	34	73	81	208
Niger	1998	0	9	12	5	79	43	148
South Africa	1998	0	1	19	46	56	38	160
Tanzania	2004	1	2	32	76	77	97	285
Thailand	1992	1	6	21	19	65	53	165
Uganda	1995	1	1	11	24	34	45	116
Vietnam	1993	0	4	17	47	124	102	294
Zambia	1990	0	3	18	32	39	45	137
<i>All 21 countries</i>		<i>11</i>	<i>76</i>	<i>301</i>	<i>614</i>	<i>1,296</i>	<i>1,199</i>	<i>3,466</i>

<sup>a</sup> The aid activities included in the table are those reported to have General Environmental Protection (CRS purpose codes 41000 and 41005) or Environmental Policy and Administrative Management (CRS purpose code 41010) as their principal objective.

<sup>b</sup> No aid activities provided prior to 1982 are registered as having environmental protection, policy and administrative management as principal objective.

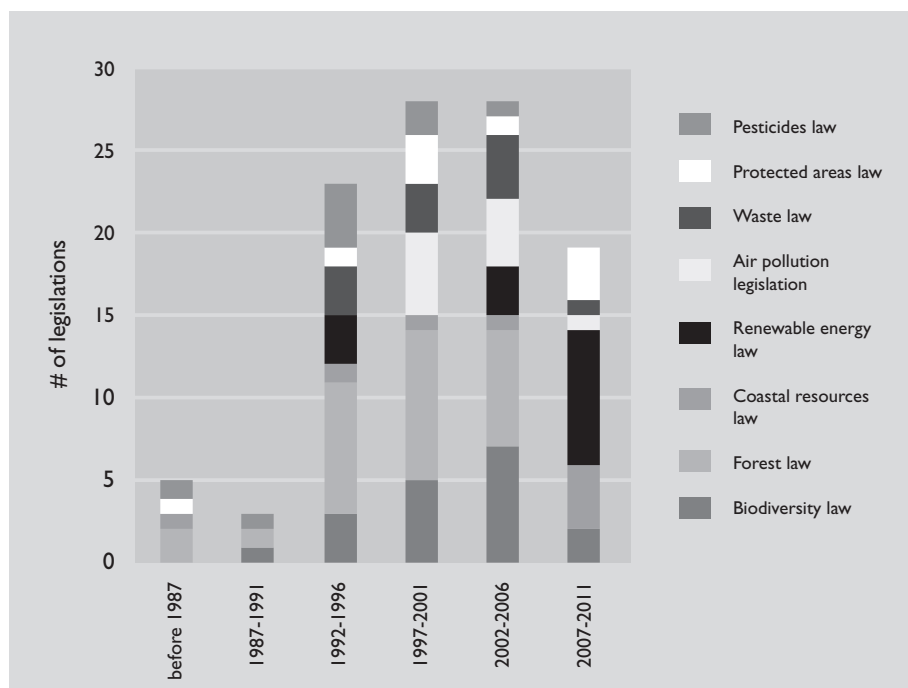
*Source:* Own table on the basis of AidData.

vention entered into force in 2004. Adopting the term ‘the dirty dozen’, initially launched by the Pesticide Action Network in 1985, the Stockholm Convention initially aimed to eliminate the production and use of 12 persistent organic pollutants, comprising pesticides as well as industrial chemicals. In 2009 this list was expanded by an additional nine chemicals and in 2011 one further chemical was added to the list. Together with earlier international conventions such as CITES, the World Heritage Convention and the Ramsar Convention on Wetlands, these

conventions constitute the core of environmental treaties forming the global environmental legal framework (UNEP, 2012a).

By ratifying these conventions, countries commit themselves to developing legislative and administrative instruments to enable them to comply with the conventions as well as assisting other countries in meeting their obligations towards the conventions. In this way, the multilateral environmental agreements like the Rio and the Stockholm Conventions are not only important in their own right as legal documents; they also produce a trail of legislative and administrative initiatives among the parties to the conventions and further contribute to shaping environmental development assistance. While the number of developing countries passing general environmental legislation for the first time peaked in the period between 1992 and 1996 (figure 1), figure 2 shows a slightly staggered pattern with respect to the amount of legislation passed in the 21 Danida and DanCED partner countries relating to the Rio Con-

Figure 2. Environmentally-oriented sector or issue-specific national legislation, 21 countries, (106 pieces of legislation)



Source: Ecolex, the gateway to environmental law operated by FAO, IUCN and UNEP ([www.ecolex.org](http://www.ecolex.org)), consulted between September 2011 and June 2012; own processing.

ventions and the Stockholm Convention, with these types of more sector-specific or issue-specific environmental legislation peaking in the period between 1997 and 2006.<sup>14</sup> Overall, such sector or issue-specific, environmentally-oriented legislation was first developed with respect to forests and biodiversity issues associated with the CBD and the UNCCD, subsequently with respect to waste and chemicals associated with the Stockholm Convention and, most recently, with respect to renewable energy associated with the UNFCCC. GEF has served as the financial mechanism for the CBD and the UNFCCC since 1994 and later also for the Stockholm Convention and the UNCCD.

UNEP strongly emphasises the importance of environmental treaties due to their contribution to establishing a global environmental legal framework and to setting up – although to varying degrees – clear targets against which to measure progress. However, UNEP also raises concerns about the legal and administrative demands that the multitude of international treaties put on national administrations, particularly in developing countries, in terms of reporting and meeting requirements.

Development assistance has – and has had – a crucial role to play in assisting developing countries to meet these obligations (Persson, 2009), despite not always to the extent promised (Roberts *et al.*, 2004). As an indication of such efforts, the number of aid activities reported as significantly or principally associated with the Rio Conventions has grown both in absolute terms and as a proportion of the overall number of aid activities reported as having environmental objectives. In their reporting to the OECD DAC, donor organisations are asked to indicate whether an aid activity is targeted towards environmental objectives, distinguishing between having environmental objectives among the ‘principal’ or among the ‘significant’ objectives – the so-called ‘environment marker’. However, as noted by Roberts and colleagues (2009) and Michaelowa and Michaelowa (2011), not all donor organisations do that and among some of those who do there may be a tendency to ‘inflate’ the number of aid activities that are targeted towards environmental objectives. In a review of aid activities supported by DfID during the 1990s, Roberts and colleagues (*ibid.*) found that environmental aid comprised around 10% whereas DfID itself had reported that aid-targeted environmental objectives represented close to 25%. Donor organisations are also asked to report whether an aid activity contributes to meeting the obligations under the Rio Conventions – the so-called Rio markers –

<sup>14</sup> All 21 partner countries have ratified the CITES and three Rio Conventions, while all but Bhutan and Malaysia have passed the Stockholm Convention.

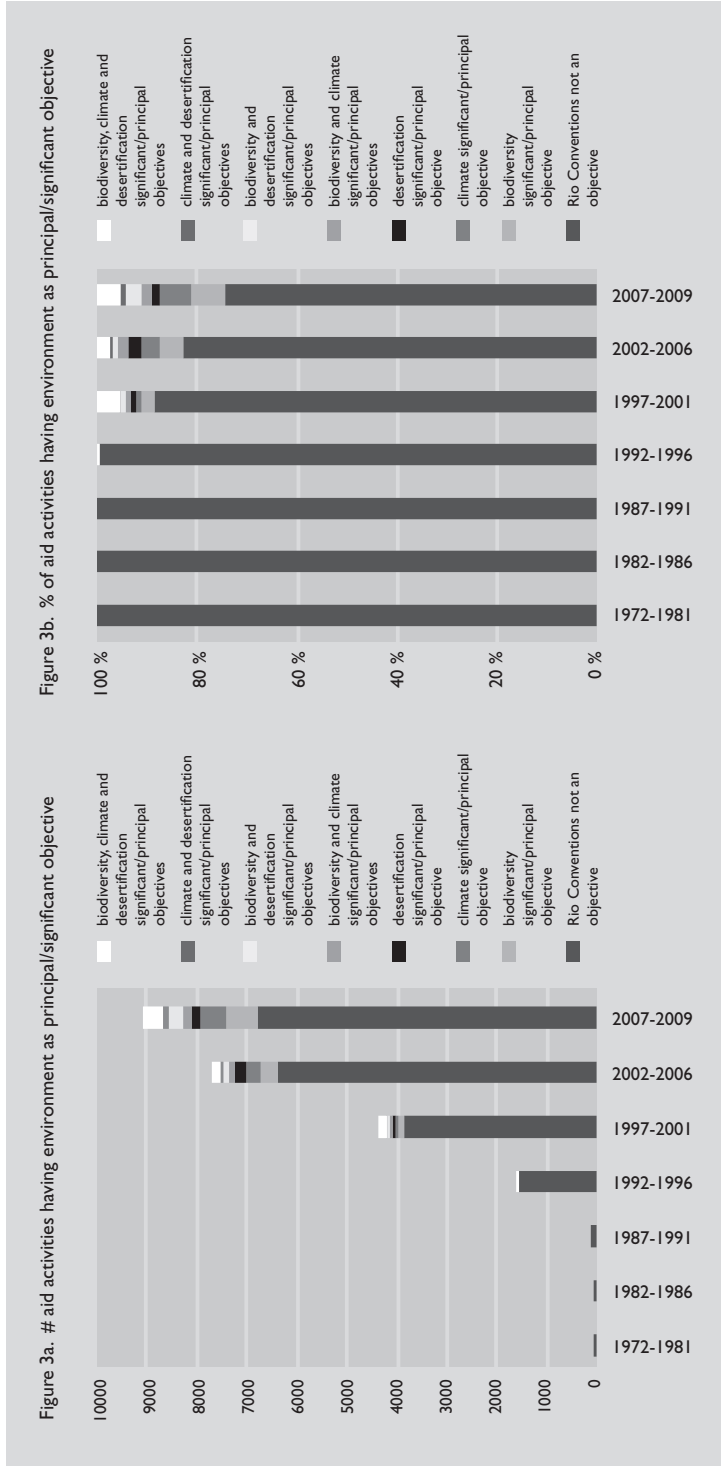
as a 'principal' or as a 'significant' objective. As for the environment marker, not all donor organisations consistently do that.

Figure 3 shows the number of aid activities reported to contribute to meeting the objectives of the Rio Conventions as a proportion of the total number of aid activities reported as environmentally-oriented aid activities offered to the 21 selected current or former Danida or DanCED countries. The numbers should be interpreted as indicative only, as the reporting from donor organisations to the OECD DAC database is far from consistent. According to the CRS purpose codes, complemented by AidData, a total of 2,222 aid activities were reported to have 'biosphere protection', 'biodiversity' or 'species protection' as their overall purpose. However, only two-thirds (65%) of these activities were reported to contribute to the CBD, according to the biodiversity Rio marker. Likewise, assuming that activities reported to contribute to meeting the obligations of one or more of the Rio Conventions would also be characterised as contributing towards environmental objectives in some degree, it is surprising that 18% of the aid activities reported to contribute to the Rio Conventions (N=7,284 aid activities) were reported as not targeting environmental objectives according to the environment marker. This obviously raises questions as to the validity of the creditor reporting.

Ignoring momentarily these shortcomings, figure 3 shows that the CBD in particular and most recently the UNFCCC have stimulated a steady increase in the number of aid activities, whereas UNCCD has stimulated fewer aid activities. Overall, figure 3 indicates that close to one fifth (18%) of the environmentally-oriented aid activities contribute to meeting the obligations of one or more of the Rio Conventions. Unfortunately, no overall indicative information is available with respect to other multilateral environmental agreements such as the Stockholm Convention in the OECD DAC/AidData database. Data reported by UNEP, however, confirms that currently the UNFCCC is the best financed among the multilateral environmental agreements, which received an estimated USD 108 million in 2010, followed by the CBD which received USD 12 million. The UNCCD, the Stockholm Convention and CITES are estimated to have received between USD 5 and 6 million each (UNEP 2012a:467; 2010 figures).

Despite the improvements made by AidData, the information contained is still not sufficiently complete to enable a comprehensive country and issue-based listing of donor-supported aid activities and a possible attribution of national and international legislative environmental achievements to support provided through specific aid

Figure 3. Environmentally-oriented aid activities offered to 21 countries according to contribution to the Rio Conventions, 1972–2009 (N=22,917 aid activities). Number (Figure 3a) and percentage (Figure 3b) of environmentally-oriented aid activities ('environment marker' contributing to one or more of the Rio Conventions ('Rio markers'))



Source: Own graphs on the basis of AidData

activities. However, our case studies, including the one from Nicaragua, show several examples of such mutual reinforcement between international efforts towards developing multinational environmental agreements and conventions, national legislative and administrative efforts and contributions from donor organisations.

Alongside the international negotiations with respect to formulating the Stockholm Convention on persistent organic pollutants, Nicaragua prepared its national legislation on the regulation and control of pesticides and toxic and hazardous substances, which was passed in 1998. At the same time, the first phase of Danida's support for the development of Nicaragua's agricultural sector was prepared and as part of this programme, support was provided for the newly created Directorate of the National Registry and Control of Agricultural Inputs and Toxic Substances within the Ministry of Agriculture, Livestock and Forestry, responsible for implementing the new law (Consia Consultants, 2002). This support was continued through to 2008 (Danida, 2003) when Danish support for the agricultural sector in Nicaragua was phased out.

Likewise, Nicaragua signed the Convention on Biological Diversity at the Rio summit in 1992 and ratified it in 1995. As for many other countries (e.g. Scanlon and Burhenne-Guilmin, 2004), the declaration and management of protected areas is considered to play a crucial role in the conservation of biological diversity and as such, protected areas figured prominently in the general environmental law which was passed in Nicaragua in 1996. Institutionally this importance was reflected in the creation of the general directorate for protected areas within Nicaragua's Ministry of Environment and Natural Resources (MARENA) and substantial donor support has been provided over the years, both for strengthening the overall capacity for planning, regulation and monitoring within this directorate and for developing and implementing management plans for the more than 70 protected areas that have come to exist in Nicaragua (Ravnborg *et al.*, 2006; Ravnborg *et al.*, 2010). Several bilateral and multilateral donor organisations have contributed to supporting these developments including Danida, Finnida, GTZ, the World Bank, IDB and GEF.

As shown by the above example from Nicaragua, development cooperation has made notable contributions towards developing the overall institutional capacity for environmental governance across sectors and administrative levels. Apart from general support to strengthen the capacity of MARENA, e.g. from Danida, provided through environmental sector programme support from 1999 to 2010, support has been provided to integrate environmental concerns in other sectors, e.g. the transport and agricultural sectors (Ravnborg *et al.*, 2005) as well as to strengthen the capacity of Nicaragua's 153

district administrations to meet their legally mandated – and often also demanded by their constituents – environmental roles from, for example, the World Bank, Finnida, and Danida. Since 2001 Nicaragua's district administrations have been required to establish district environmental units and according to the System for Assessment of Municipal Performance in Nicaragua (SIRDEM), the majority of Nicaragua's district administration (88%) had complied with this requirement by 2007 (INIFOM, 2008). However, most district administrations only have very few technical staff to cover the full range of responsibilities assigned to them, ranging from road and infrastructure maintenance, financial administration including tax registration and collection, community development, water supply and sanitation, and environmental and natural resource governance. On average, the largest district administrations have a total of 6.3 technical staff members with a technical or professional qualifications corresponding to the position they hold. For the middle-sized districts, the corresponding number is 4.8 staff members, while the smallest district administrations only count on 4.1 technical staff members with qualifications matching the position they hold. This implies that despite donor support provided for strengthening of district-level capacity for environmental governance, district administrations still, to a wide extent, have to rely on the potential synergies which may occur with externally financed activities, whether executed through central government agencies or through non-governmental organisations in their efforts to comply with their mandates, including their environmental and natural resource-related mandates. Moreover, the limited technical capacity of district administrations and other local-level authorities increases the risk of discretionary environmental governance with environmental legislation only being partially applied, often to the detriment of those with less political and economic influence (Ravnborg and Gómez, 2012; Ravnborg *et al.*, 2012). Similar situations are found elsewhere such as, for example, in Kenya as documented by Funder and Marani (2013).

OECD DAC estimates annual official development assistance focussed on the environment amounted to USD 25.4 billion in 2009–2010 (OECD DAC Secretariat, 2012)<sup>15</sup> while UNEP (2012a:468) reports a figure of USD 15 billion. Irrespective of the actual size – for which only estimates exist – development assistance in support to the environment is characterised by being provided through a multitude – according to UNEP (2012a), a plethora – of individual agreements and partnerships. Given that environmental agencies and administrative procedures in many developing countries are still young, servicing such

<sup>15</sup> This estimate is based on reportings from DAC members according to the 'environment marker'. Not all DAC members report according to the environment marker and moreover, different interpretations may exist both between donors and for each donor from year to year and within different sectors as to whether a particular activity is regarded as 'environmentally focussed'.

Table 3. Aid activities offered to 21 countries according to type of environmental contribution by donor organisation, 1972 – 2009 (N=25,552 aid activities)

Country	# environmentally oriented aid activities	# aid activities contributing to the Rio Conventions	# of aid activities contributing to general environmental protection, policy and administrative management	All three types of environmentally oriented aid activities
African Development Fund (AFDF)			1	1
Andean Development Corporation (CAF)			1	1
Asian Development Bank (ASDB)			1	1
Australia	842	140	36	920
Austria	723	147	28	726
Belgium	1403	667	44	1603
Canada	1004	305	189	1045
Denmark	949	490	245	1112
European Communities (EC)	312	65	53	319
Finland	654	170	55	682
France	427	142	132	460
Germany	3601	850	112	3659
Global Environment Facility (GEF)			119	119
Greece	19	20		31
Inter-American Development Bank (IADB)			2	2
Ireland	292	192	42	327
Italy	540	266	59	561
Japan	1579	1097	480	2049
Korea	148	52	39	151
Kuwait			1	1
Luxembourg	59		10	59
Monaco			1	1
Netherlands	1132	786	279	1516
New Zealand	397	27		403
Nordic Development Fund (NDF)			2	2
Norway	1721	683	315	1889
Portugal	68	33	14	73
Spain	1313	641	64	1450
Sweden	2858	43	104	2860
Switzerland	399	194	102	509
United Kingdom	844	102	79	852
United Nations Children's Fund (UNICEF)			42	42
United Nations Development Programme (UNDP)		6	458	464
United States	1633	839	340	1637
World Bank - International Bank for Reconstruction and Development			3	3
World Bank - International Development Association (IDA)			21	21
World Bank - Managed Trust Funds			1	1
<i>Total</i>	<i>22917</i>	<i>7957</i>	<i>3474</i>	<i>25552</i>

Number of aid activities reported as principally or significantly targeting environmental objectives ('environment marker') contributing to the Rio Conventions as a principal or significant objective ('Rio marker') or contributing to environmental protection, policy & administrative management (CRS purpose codes 41000, 41005, 41010) 1972-2009, by donor organisation.

Source: Own elaboration on the basis of AidData.



quantities of agreements, in addition to meeting reporting requirements to multilateral environmental treaties, places great demands on their resources.

Table 3 shows that donor organisations made commitments with respect to a total of 25,552 aid activities to the selected 21 current or former Danida or DanCED

Table 4. Aid activities offered to 21 countries according to type of environmental contribution by recipient country, 1992 – 2009 (N=25,387 aid activities)

Country	Average annual number of committed aid activities reported as			Average annual number of aid activities committed to all three types of environmental objectives
	environmentally oriented (environment marker)	supporting the Rio Conventions (Rio markers)	focussed on general environmental protection, policy and administrative management (CRS purpose codes)	
Bangladesh	55.2	16.8	7.1	62.9
Benin	26.2	11.4	3.9	29.8
Bhutan	10.6	4.8	3.5	13.4
Bolivia	98.2	37.7	12.1	106.3
Burkina Faso	48.0	19.9	7.7	55.9
Cambodia	51.5	14.9	7.1	56.9
Ghana	39.8	15.2	7.4	46.0
Indonesia	105.8	38.8	17.5	113.9
Kenya	82.7	29.9	12.2	91.6
Malaysia	17.9	11.0	4.4	22.0
Mali	42.7	20.4	7.2	50.8
Mozambique	70.5	22.8	7.2	79.2
Nepal	49.4	16.1	8.4	54.8
Nicaragua	92.2	26.9	11.6	100.1
Niger	24.9	11.0	7.7	33.9
South Africa	72.6	21.5	8.8	78.1
Tanzania	93.2	30.9	15.7	101.2
Thailand	43.7	15.0	8.8	48.9
Uganda	71.3	20.8	6.3	77.4
Vietnam	122.2	38.8	16.2	134.8
Zambia	45.8	17.4	7.4	52.4
<i>Average – 21 countries</i>	<i>60.2</i>	<i>21.1</i>	<i>9.0</i>	<i>67.2</i>

Average annual number of aid activities reported as principally or significantly targeting environmental objectives ('environment marker') contributing to the Rio Conventions as a principal or significant objective ('Rio marker') or contributing to environmental protection, policy & administrative management (CRS purpose codes 41000, 41005, 41010) 1992-2009, per recipient country.

Source: Own elaboration on the basis of AidData

partner countries that were reported to either contribute to environmental objectives, to meet obligations towards the Rio Conventions, or that contributed towards general environmental protection, policy or administrative management in the period between 1972 and 2009. The table also lists the number of aid activities reported to contribute to one or more of the Rio Conventions and that are reported as having 'general environmental protection, policy and administrative management' as their primary objective.

Thus, while on the one hand offering support to strengthen the environmental governance capacity of recipient countries, in many cases starting from scratch, the multitude and diversity of additional environmentally-oriented aid agreements with different donor agencies, on the other hand, put significant demands on the newly established environmental institutions to an extent that, in some countries, a significant part of the installed capacity may be absorbed in servicing and reporting upon these aid activities.

## **5. Challenges ahead for environmental governance and development cooperation – Lessons from the case studies**

### **Environmental governance as a new policy field**

Environmental governance is new as a policy field in its own right. Establishing a new policy field with its own legal and administrative framework at central as well as at local level, trained staff and associated independent research and education capacity, as well as procedures for coordination both with other – and older – ministries who fear losing part of their mandate and authority, and with the police and the judiciary, is a process that demands both time and careful effort.

### *Beginning is half done, but not completed*

Significant progress towards this end has been made in all four case study countries. Development cooperation, both bilateral and multilateral, has contributed to this progress both through support for general institutional strengthening, such as the support for the implementation of the Environmental Management and Coordination Act (EMCA) passed in 1999 in Kenya (Funder and Marani, 2013), and through support for the planning and implementation of specific activities, such as the institutionalisation of the integrated coastal zone management (ICZM) approach into the Ministry of Natural Resources and Environment in Vietnam (Vu, 2012).

However, it is equally clear that this process is far from complete. While legislative and regulatory frameworks covering a broad spectrum of aspects within the environmental agenda are now in place in many countries, including the four case study countries, the capacity for enforcement of these frameworks tends to lag behind (Danida, 2010; UNCSD, 2012). Several factors contribute to explain this. As illustrated by the case study from Taita Taveta County in Kenya (Funder and Marani, 2013), the most straightforward among these is lack of staff and operational funds to ensure effective representation of environmental authorities at the local level whether as sub-national representations of national environmental authorities or as mandates being effectively decentralised to local government authorities. Apart from due to an absolute lack of resources, the lack of local-level staff may also be the result of political and strategic priorities at the central level, where local-level activities are not always seen as a priority. However, the low level of enforcement is also due to lack of access to services outside the realm of the newly established environmental authorities, whether at central or local level. Examples of this include the lack of

certified laboratories and staff for regularly monitoring pesticide residues in ground and surface water in Nicaragua (Ravnborg, 2013) or for monitoring radioactive material in water in and around the uranium mines in Niger (Larsen and Mamosso, 2013). Finally, the low level of enforcement is also due to the somewhat hesitant attitude within institutions outside the environmental realm such as the police, the legal profession, and the judiciary, towards dealing with environmental issues. Often staff within such institutions is not trained to deal with environmental issues and still have to gain familiarity in dealing with such issues. The efforts in Kenya supported through donor cooperation to establish an environmental police provide a positive illustration of the importance of such horizontal integration and coordination of the responsibility for environmental governance (Funder and Marani, 2013).

Thus, while there is reason to celebrate the progress made towards establishing the overall legal and administrative framework for environmental governance in many countries and the contribution made by development cooperation towards this end, it is important to recognise that the job is only half done. To complete the second part of the job and achieve effective and non-discretionary environmental governance, efforts are needed to strengthen local environmental governance, for example at district level; to strengthen the capacity for delivering high-quality technical services, including research and education, which are necessary for effective environmental governance in a timely manner, such as the monitoring of water quality, of biological diversity etc.; and to facilitate horizontal integration and coordination between environmental authorities and other executive and judiciary authorities at central and local level.

#### *Environmental authorities as a welcome new space for claiming rights*

Being a new authority, however, also constitutes an opportunity. Citizens who would hesitate to present their claims or denouncements to well-established authorities, which may be seen as already compromised by existing power constellations, may endeavour to do so to newly established environmental authorities. The case study on the implementation of the EMCA in Taita Taveta County in Kenya (Funder and Marani, 2013) found that the EMCA has the potential to serve as a platform for raising local grievances and claiming rights, not only with respect to environmental issues but also to broader issues relating to resource rights. The institutional mechanism that enables this includes (i) the mandatory consultations and public hearings in environmental impact assessment (EIA) processes; (ii) the Public Complaints Committee as an EMCA institution charged with receiving and investigating complaints and allegations regarding violations of the EMCA across the country; (iii) the National Environment Tribunal, and (iv) the potential for a citizen to take a case

of violation of the law to the High Court (currently being transferred to the new Land and Environment Court). A number of examples exist in Kenya where these options have actually been applied. In particular, EIAs have provided an opportunity for local communities to raise their grievances vis-à-vis large-scale development projects. Because the law stipulates the need for public consultations in EIAs, it provides a platform for communities to claim that they have not been heard, or only insufficiently heard. Although there are no such cases in Taita Taveta County at present, there are several examples from neighbouring Counties (such as Kwale and Tana River Counties) where communities have had some success in achieving either compensation or a temporary halt to activities on the account of failure by investors to meet requirements stipulated in the EMCA. Significantly, most of the major public protests in connection to EIAs or the EMCA in Kenya have been facilitated or led by NGOs or by activist lawyers.

### **Fashions and blind spots may hamper the effective contribution of development cooperation to environmental governance**

The case studies from Vietnam (Vu, 2012) and Niger (Larsen and Mamosso, 2013; Larsen, 2013) illustrate the shortcomings which emerge when the environmental development cooperation agenda is either taken in by fashions and promises of panaceas that are conceptually appealing but administratively unfeasible, or restricted by 'blind spots' preventing development cooperation from addressing environmentally important but politically or economically sensitive issues.

#### *The fashion for integrated approaches*

With its almost 3,260 kilometre coastline, coastal zone management is an important issue in Vietnam, not only from an economic point of view but also from an environmental point of view. A significant part of the Vietnamese economic activity takes place in the coastal zones. At the same time, coastal zones represent important habitats (some of which are covered under the Ramsar Convention), play an important role in regulating groundwater quality and providing flood control, etc. Integrated Coastal Zone Management has been promoted as an approach to overcome problems which the existing fragmented and sector-oriented efforts in coastal areas have had difficulties in dealing with. Donor cooperation has played a central role in promoting ICZM. Although the ICZM approach first became known in Vietnam already in the beginning of the 1990s, only limited progress was made until 2000, when Vietnam received the first support from international donors to pilot the ICZM approach. During the period from 2000 to 2007, the ICZM approach was

piloted with support from a wide range of international donor organisations such as the World Bank, the Asian Development Bank, IUCN, GEF, Danida, GIZ, Sida, the Netherlands government, and UNDP.

The support provided through development cooperation is credited with making a significant contribution to facilitating the establishment of a legal framework for ICZM in Vietnam. Furthermore, in 2008 the Vietnamese Government established the Administration of Seas and Islands (VASI) as an agency located under the Ministry of Natural Resources and Environment (MONRE), tasked with ensuring cross-sectoral and integrated management and coordination of all sea, coast and islands issues, which relate to almost 15 ministries and sectors. At the provincial level, the Department of Natural Resources and Environment (DONRE) is the state management body for coastal-related issues. Recently a number of Division of Seas and Islands departments have been established under DONRE. This agency will be directly in charge of coastal planning and management.

Despite this formal institutional progress, there have been delays in implementing ICZM activities in comparison to the objectives set by the Government, and in practice only limited progress has been made. Most of the donor-supported institutions have focused on awareness raising and capacity building. At the local level, by 2010 only four of the fourteen provinces in the North Central and Central coast region had completed and approved their ICZM strategy. Difficulties have also been observed in effectively executing the existing legislative frameworks, strategies and action plans, especially without ODA support. While conceptually attractive, the practical implications of adopting ICZM have remained unclear to many major stakeholders in central government and provincial agencies. Thus, combined with only limited political ownership to the approach, the environmental benefits gained from the massive investments are still to be harvested.

#### *Blind spots on the environmental development cooperation agenda*

Niger is well known in the international media and among international donor agencies for being one of the world's poorest countries, struggling with recurring droughts, the risk of desertification and chronic structural hunger and malnutrition. However, to some extent this portrait has overshadowed the fact that Niger also hosts the fourth largest uranium production in the world. Uranium exports reached over 348 million Euros in 2010, representing more than twice the total ODA finance received during the same year. The exploitation of the mineral wealth (which apart from uranium also includes gold, phosphate and coal) by international investors is

expanding, with granted and requested mining permits comprising close to 10% of the national territory. French-led corporations operate by far most of the uranium mining activity in Niger and France is also the main importer of uranium from Niger.

Unfortunately uranium mining, and the mining sector in general, is operating in the face of severe grievances from affected local populations and transhumant pastoral peoples, notably related to radioactive pollution, water resource depletion, work-related diseases for mine workers, and the appropriation of land and resources, including legally enshrined common property regimes and pastoral territories, without proper compensation. A growing body of media and NGO reports have contributed to raising public awareness about these severe environmental, social and human health impacts associated with the mining activities.

Niger has seen the development of a considerable legislative and formal institutional framework for the environmental governance of the uranium mining sector. This includes the provisions contained in the Code Minière (1993) and a recent (2006) implementing decree regulating the law. However, it is widely acknowledged among Nigerien government staff that the government is not able to properly implement its environmental legislation and effectively monitor the uranium mining industry. As an example, the Environmental Impact Assessment Bureau has only one person in place to verify all mining project applications in the country and, although legally required, not all verification missions are undertaken. The same applies to the National Centre for Radioprotection, which lacks the necessary capacity, for example, to undertake surprise inspections.

Despite the severity of the environmental problems which may follow as a consequence of this apparent lack of capacity, environmental issues associated with the mining sector in general, and the uranium mining in particular, pass seemingly without mention in the documents guiding development cooperation in Niger. In the joint evaluation of the 2000–2008 cooperation with the European Commission, Belgium, France, Denmark and Luxembourg (SEE, 2010) attention is paid to the economic potential of the uranium mining sector and concerns are raised regarding transparent and democratic revenue distribution. However, no reference is made to environmental impacts or risks associated with uranium mining. In the current Niger country strategy issued by the European Union (European Commission, 2008), including its chapter on the country analysis, there is no recognition of the environmental impacts and/or risks associated with the mining sector. The same is the case for the World Bank's Country Assistance Strategy for Niger (World Bank,

2003), the United Nations Development Programme's (UNDP) Country Programme 2009–2013 (UNDP, 2009), and the African Development Bank's (AfDB) country profile (AfDB, 2010). An exception is found in the Accelerated Development and Poverty Reduction Strategy (SDRP), in which one sentence notes that “[t]he efforts to preserve the environment and manage the sanitary risks linked to the uranium mining will be continued” (IMF, 2008:95). In the budget allocations for the action plan of the SDRP, this results in the allocation of Euro 1.7 million to the improved management of sanitary risks, but with no mention of environmental risks.

Altogether, while cognisant of the need to better harness the economic potential, promote the industry, and improve fiscal governance, the documents are surprisingly – and alarmingly – silent with respect to the environmental impacts of the growth in the mining sector in general, and the operation of the uranium mining in particular.

### **The importance of international environmental conventions**

Whether in their causes or in their impacts, many environmental problems reach beyond community, district and national boundaries and therefore can only be effectively addressed through international collaboration. This recognition dates back to the 1960s when the initiative was taken to prepare the first global environmental conference under the auspices of the United Nations and, as already mentioned, it has led to the establishment of a set of international environmental conventions covering a broad range of environmental issues and natural resources.

Besides the importance of international environmental conventions in terms of focusing attention and providing direction to national and international initiatives to improve environmental governance within their specific areas of domain, international environmental conventions also serve wider governance purposes by providing the legal basis for holding governments and companies to account for the environmental impacts of their actions and inaction. As such they provide a legitimate basis for international environmental cooperation – and contestation – whether among governments or among a wider range of societal actors, ranging from local communities to international corporations (Roberts *et al.*, 2004).

The case study of the regulation of pesticide use and trade in Nicaragua (Ravnborg, 2013) serves as an illustration of the negative consequences for the ability to raise environmental claims of the absence of being covered by the international regulation provided by an international environmental convention such as the Stockholm



Convention on Persistent Organic Pollutants (POPs). DBCP<sup>16</sup> is a persistent organic pesticide included among the pesticides listed as the so-called 'Dirty Dozen' in 1985 by the international Pesticide Action Network (PAN-UK, 2009). Up until the mid-1980s, DBCP was used in Nicaragua's banana plantations. Today, sugarcane cultivation, for sugar, rum and bioethanol, is gradually expanding into the area previously covered by banana plantations and, due to its being a persistent organic pesticide, DBCP is still present in the environment, including in the groundwater. In Nicaragua, as elsewhere in Latin America in areas that share the same agricultural history, a chronic – and deadly – kidney disease is rapidly spreading among plantation workers. Many observers associate the disease with the DBCP still present in the environment e.g. in the water used for irrigation.

The fact that DBCP was used to treat the soil rather than the crop itself implies that residue transmission through the agricultural produce is negligible. While this is fortunate for the consumers of the agricultural products, it is doubly unfortunate to the Nicaraguan farm workers. Not only are they exposed to the DBCP residues still present in the environment of its use; it also implies that the incentives to develop international regulation with respect to DBCP are less than for pesticides whose residues are transmitted more widely. As recently experienced by El Salvador's Minister of Health, this reduces the possibility for international appeal. At a UN summit of health ministers held in 2011, she called for chronic kidney disease to be included at the list of top chronic illnesses in the Americas, thereby hoping to attract UN funding which would enable independent studies to be undertaken of the chronic kidney disease. However, the call faced opposition from the US delegation and was not accepted.<sup>17</sup> This lack of international regulation, e.g. by not being covered by the Stockholm Convention on Persistent Organic Pollutants, leaves the harmful effects from historical use of DBCP as an issue to be dealt with nationally.

Although international environmental conventions are important in their own right as platforms for holding governments and companies to account, their effective implementation requires investment not only at international level but also at national and local level. As noted in a report from the Nicaraguan environment ministry in an assessment of the national institutional capacity for complying with the Stockholm Convention, "Nicaragua counts on a good legal base for the control of the majority of chemical substances but due to lack of human, operational and financial resources,

<sup>16</sup> 1,2-DiBromo-3-ChloroPropane.

<sup>17</sup> <http://www.publicintegrity.org/2011/12/12/7578/thousands-sugar-cane-workers-die-wealthy-nations-stall-solutions>, accessed 27 February 2013.

it is not always possible to fully apply the legal framework” (MARENA, 2010:58; own translation). Chemicals such as DDT, which are covered by the Stockholm Convention, are thus still easily obtained in many countries, including in Nicaragua and Vietnam. While DBCP may remain a problem which is confined to the areas of former use of the pesticide, other pesticides travel with the produce which they are used to protect and end up causing brain damage and other harmful effects far from where they were used.

## **6. Conclusions – how development cooperation may contribute to meet the challenges ahead**

Environmental governance takes place at many levels of society, through statutory as well as through customary institutions and with the involvement of a wide range of actors. In many parts of the world people have developed practices, rules and norms governing the use of natural resources often serving to meet environmental as well as social, economic and cultural objectives. However, as societies change and new economic actors emerge and new ways of using natural resources develop, the need for the governance of natural resource use by actors who do not form part of or who may not abide by community-based or customary natural resource governance arises, along with ways of using natural resources that were never locally foreseen. This accentuates the need for the establishment of a legislative and institutional framework for environmental governance.

As documented in this report, significant progress has been made in developing countries in this respect and donor cooperation has contributed to this. Since 1992, when the UN Summit on Environment and Development was held in Rio de Janeiro, most developing countries have developed general environmental legislation and have worked towards establishing the administrative frameworks necessary for enforcing these legal frameworks. However, while mandates have been defined and assigned, the funds following these mandates have been insufficient to ensure effective enforcement of the environmental governance frameworks put in place. This was also noted in a recent evaluation of Danish environmental sector programme support to Africa, which found that the assistance had indeed been most effective in the areas of policy and strategy paper development and support to the development of legal frameworks. Meanwhile, capacity constraints in the government systems had slowed implementation and the delivery of results (Danida, 2010). This is only one of the consequences of the profound funding gap which exists between the funding needs prescribed in Rio in 1992 to meet the Agenda 21 and the funding that has actually been provided. Roberts and colleagues (2009) assess that during the 1990s, only two per cent of the funding prescribed in Rio in 1992 to meet the Agenda 21, was delivered.

While in most developing countries the most essential legislative and administrative environmental governance framework has been put in place, a strong case can be made for development cooperation to contribute to making funds available for its effective enforcement, both through directly making funds available and also through con-

tributing to enhance the capacity for generating national revenues in the developing countries, e.g. through taxation.

Although important, strengthening environmental governance not only requires strong environmental authorities, it also requires that environmental concerns are integrated in both economic sector policies and interventions, and into support for the justice sector (e.g. police, the judiciary, environmental appeal institutions such as environmental ombudsman institutions) as well as in research and education in general. Without such horizontal integration of environmental concerns, attempts to enforce existing environmental legislation run the risk of being frustrated, thus leading to the undermining of environmental justice. Also in this respect, development cooperation may provide an important contribution.

While the commitment to an environmental agenda may at times seem limited among the political and economic elites in developing as well as developed countries, environmental concerns are often more clearly pronounced as part of everyday life among the millions of men, women and children who struggle to get clean water and safe homes and work environments, but all too often their rights are violated. Some of these men, women and children manage to organise themselves to gain a voice and claim their rights, but often the support and intervention of already organised civil society activists, health workers, biologists, environmental lawyers, etc. are needed to make their voices heard. Development cooperation may contribute to strengthening this local claim-making capacity by ensuring the existence of multiple and meaningful ways to formally state environmental claims, e.g. through public hearings, as well as through strengthening the capacity of decentralised authorities to attend to the numerous environmental denouncements presented each year by citizens to district administrations, ministry delegations and police officers around the world.

Finally, the transboundary nature of environmental problems is increasingly making international regulation still more important. Although surprisingly, “there are no globally-agreed water quality standards, no rigorous water quality index based on long-term data, and data gaps exist for concentrations of contaminants of emerging importance” (UNEP 2012b:25), international environmental conventions have been developed during the past decades covering a wide range of resources and environmental problems. Hence, internationally negotiated environmental conventions are becoming increasingly important as a legitimate and mutually binding platform for achieving effective environmental regulation. However, as noted by UNEP, some of these environmental treaties lack specific targets and timetables. Others simply

lack the funding necessary at national and sometimes also at international level to implement and monitor the targets set. Whether due to the absence of specific targets or due to the lack of resources to implement the targets set, these deficiencies imply the risk of undermining the environmental conventions from being legally binding treaties to de facto becoming soft law guidelines (UNEP 2012a). In an increasingly globalised world, this would not only in many places restrict the opportunities for holding governments and companies to account on the basis of the environmental impacts of their actions and inaction; on a global scale it would also accelerate the burden of environmental problems which we all have to face. Development cooperation may provide an important contribution to strengthen – and may indeed be essential for – the capacity of developing countries to meet their obligations towards international environmental conventions. However, ensuring the existence of an effective framework for international environmental governance with clear targets and monitoring systems is a challenge that reaches beyond development cooperation and is incumbent on governments of both developing and developed countries.

## References

- AfDB. 2010. "Groupe de la BAD et le Niger Ensemble pour gagner la bataille du développement" (AfDB and Niger set to win the battle for development). Retrieved from: <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/NIGER%20profil%20OK.pdf>.
- AidData. 2010. "PLAID 1.9.1 Codebook and User's Guide: February 2010 Development release of the PLAID Database"
- Bolt, A.; E.Castillo and H.M.Ravnborg. Forthcoming. Logros y desafíos ambientales en Nicaragua y la contribución de la cooperación internacional – un estudio de caso con enfoque sobre la regulación de plaguicidas. Mimeo. (Available at <http://www.diis.dk/recom>).
- Brodesser, J.; D.H. Byron; A. Cannavan; I.G. Ferris; K. Gross-Helmert; J. Hendrichs; B.M. Maestroni; J. Unsworth; G. Vaagt and F. Zapata. 2006. "Pesticides in developing countries and the International Code of Conduct on the Distribution and Use of Pesticides". (<http://www-naweb.iaea.org/nafa/fep/meetings/2006-AGES-CoC.pdf>).
- Consia Consultants. 2002. "Technical Review of Agricultural Sector Programme Support (ASPS/PASA) in Nicaragua". Mimeo.
- Danida. 2003. "Nicaragua Agricultural Sector Programme Support – Phase II. PASA II". Sector Programme Support Document. Draft. Ref. No. 104.Nic.805. Ministry of Foreign Affairs, Danida.
- Danida. 2010. "Evaluation of Programmatic Approaches to Support for the Environment in Africa, 1996–2009". Ministry of Foreign Affairs, Danida.
- European Commission. 2008. "Document de Stratégie Pays & Programme Indicatif National. Période 2008–2013" (Country Strategy Paper & National Indicative Programme. Period 2008–2013). Final version.
- Funder, M. and M. Marani. 2013. "Implementing national environmental frameworks at the local level. A case study from Taita Taveta County, Kenya". DIIS Working Paper 2013:06.
- Hicks, R.L.; B.C. Parks; J.T. Roberts and M.J. Tierney. 2008. *Greening Aid? Understanding the Environmental Impact of Development Assistance*. Oxford: Oxford University Press.
- IMF. 2008. "Niger: Stratégie de Développement Accéléré et de Réduction de la Pauvreté 2008–12" (Niger: Poverty Reduction Strategy Paper). IMF Country Report No. 08/149. Retrieved from: <http://www.imf.org/external/french/pubs/ft/scr/2008/cr08149f.pdf>.

- INIFOM. 2008. "Sistema de Reconocimiento de Desempeño Municipal (SIRD-EM). Resultados de la edición 2007". Managua.
- Larsen, R.K. 2013. "Niger: development cooperation must support the environmental governance of uranium mining". DIIS Comment.
- Larsen, R.K. and C.A. Mamosso. 2013. "Environmental governance of uranium mining in Niger. A blind spot for development cooperation?" DIIS Working Paper 2013:02.
- MARENA. 2010. "Perfil de Nicaragua. Evaluación de la infraestructura para la gestión de sustancias químicas". Managua: Ministerio de Ambiente y Recursos Naturales.
- Michaelowa, A. and K. Michaelowa. 2011. "Coding Error or Statistical Embellishment? The Political Economy of Reporting Climate Aid. *World Development* 39:11, 2010-2020.
- OECD. 2000. Donor Support for Institutional Capacity Development in Environment: Lessons Learned. DAC. Evaluation and Aid Effectiveness 3.
- OECD DAC Secretariat. 2012. Aid in Support of Environment. (<http://www.oecd.org/dac/aidstatistics/49929823.pdf>).
- PAN-UK. 2009. The List of Lists. A catalogue of lists of pesticides identifying those associated with particularly harmful or environmental impacts. 3rd edition. Briefing Paper. (<http://www.pan-uk.org/archive/List%20of%20Lists.html>, accessed 28 February 2013).
- Persson, Å. 2009. "Environmental Policy Integration and Bilateral Development Assistance: Challenges and Opportunities with an Evolving Governance Framework". *International Environmental Agreements. Politics, Law and Economics* 9:4, 409-429.
- Ravnborg, H.M. 2013. "Laws, pesticides and the importance of international environmental cooperation". DIIS Policy Brief.
- Ravnborg, H.M.; H. Egeylng; K. Raben and D.A. Wardell. 2005. "Integrating Environment as a Cross-cutting Issue in Danish Development Assistance". DIIS Report 2005:10. Copenhagen: Danish Institute for International Studies.
- Ravnborg, H.M. with H. Balslev; M. Barrios; R. Broegaard; E. Cotton; L.Gómez; A. Noguera; F. Reyes; R. Rueda; A. Ruíz; and N. Toval. 2006. "Conservación de Biodiversidad en el contexto de Pobreza, Avaricia e Instituciones Débiles". Cuaderno de Investigación 25. Managua: Nitlapán.
- Ravnborg, H.M. in collaboration with Á. Noguera; E. Mairena; F. Paíz; F. Reyes; N. Toval and R. Rueda. 2010. "Desde declaración hasta protección real. Biodiversidad y participación local en la gestión de cuatro áreas protegidas en Nicaragua". DIIS Report 2009:23. Copenhagen: Danish Institute for International Studies. (In English as DIIS Report 2010:04).

- Ravnborg, H.M.; R. Buitrago; R. Cartagena; E. Escobar; I. Gómez Galo; L.I. Gómez and V. Peláez. 2012. "Territorial governance of natural resources". Key Aspects of Territorial Development Series. Santiago de Chile: Rimisp.
- Ravnborg, H.M. and L.I. Gómez. 2012. "The importance of inequality for territorial natural resource governance – Evidence from two Nicaraguan territories." Presented at "Challenging inequity in Latin America Uneven dynamics of growth, equity and inclusion Conversations on Inequity an Interdisciplinary Seminar", Pufendorf Institute for Advanced Studies, Lund University, 7 May, 2012 and at Panel 7 Geographies of Economic Growth and Social Inclusion at the Nordic Latin American Research Network (NOLAN) conference, 26–28 April, 2012.
- Roberts, J.T.; B.C. Parks and A.A. Vasquez. 2004. "Who Ratifies Environmental Treaties and Why? Institutionalism, Structuralism and Participation by 192 Nations in 22 Treaties". *Global Environmental Politics*, 4:3, 22-64.
- Roberts, J. T.; B.C. Parks; M.J. Tierney and R.L. Hicks. 2009. "Has Foreign Aid Been Greened?", *Environment: Science and Policy for Sustainable Development*, 51:1, 8–21.
- Scanlon, J. and F. Burhenne-Guilmin. Eds. 2004. *International Environmental Governance: An International Regime for Protected Areas*. IUCN: Gland.
- SEE (Société d'Études et d'Évaluations Sarl). 2010. *Joint evaluation of the cooperation of the European Commission, Belgium, Denmark, France and Luxembourg 2000–2008*.
- Tierney, M. J.; D.L. Nielson; D.G. Hawkins; J.T. Roberts; M.G. Findley; R.M. Powers; B. Parks and S.E. Wilson. 2011. "More Dollars than Sense: Refining Our Knowledge of Development Finance Using AidData." *World Development* 39:11, 1891–1906.
- Udenrigsministeriet. 1972. *Beretning fra den danske delegation til De forenede Nationers konference om menneskets omgivelser*. København.
- UNCSD. 2012. "Regional, national and local level governance for sustainable development". Rio 2012 Issues Briefs, Number 10. [http://www.uncsd2012.org/content/documents/229draft\\_15Dec7pm\\_formatted730am.pdf](http://www.uncsd2012.org/content/documents/229draft_15Dec7pm_formatted730am.pdf)
- UNDP. 2009. *Programme de pays pour le Niger (2009-2013) (Country Programme for Niger (2009-2013))*. DP/DCP/NER/1. Retrieved from: <http://web.undp.org/africa/programmedocs/NIGER-CPD-2009-2013.pdf>.
- UNDP. 2011. *Human Development Report 2011. Sustainability and Equity: A better future for all*. New York: Palgrave Macmillan.
- UNEP. 2012a. *Global Environment Outlook 5. Environment for the Future We Want*. (<http://www.unep.org/geo/geo5.asp>).



- UNEP. 2012b. Measuring Progress. Environmental Goals & Gaps. ([http://www.unep.org/geo/pdfs/geo5/Measuring\\_progress.pdf](http://www.unep.org/geo/pdfs/geo5/Measuring_progress.pdf))
- UNFCCC. 2007. Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries. Bonn: Climate Change Secretariat.
- United Nations. 1971. "Development and Environment". Report submitted by a panel of experts convened by the Secretary-General of the United Nations, Conference on Human Environment. Founex, Switzerland, 4–12 June 1971.
- Vu, T.C. 2012. Role of ODA in Promoting Integrated Coastal Zone Management in Vietnam. The case of Thua Thien Hue Province. Mimeo. (Available at <http://www.diis.dk/recom>).
- World Bank. 2003. "Memorandum of the President of the International Development Association to the Executive Directors on a Country Assistance Strategy of the World Bank for the Republic of Niger". Report No. 25203-NIR. Retrieved from: [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2003/01/07/000094946\\_02122104093541/Rendered/PDF/multi0page.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2003/01/07/000094946_02122104093541/Rendered/PDF/multi0page.pdf).
- World Commission on Environment and Development. 1987. Our Common Future. Oxford University Press.
- World Wildlife Fund. 2012. Living Planet Report 2012. Biodiversity, biocapacity and better choices. WWF International.

