# A process for identifying national solutions to challenges faced in developing countries in reporting to environmental conventions: insight from the Facilitating National Reporting to the Rio Conventions (FNR\_Rio) Project

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Received 31 Dec. 2014;	Revised 14 Mar. 2015;	Accepted 22 Apr. 2015
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**ABSTRACT:** Almost all countries in the world are party to the Rio Conventions. This entails a number of responsibilities, including reporting periodically on aspects of environmental health and national implementation of the convention. These reports can cover hundreds of pages, so completing reports is often a significant undertaking. Since countries can be party to numerous Multilateral Environmental Agreements (MEAs), they may have several such reports to prepare at any one time, often using similar information. This article shares insights from a project that piloted nationally-driven, integrated approaches to reporting to the Rio Conventions and developed flexible methods for enhancing the national reporting process, in a way that is relevant for a particular country. The project found that a focus on collaborative institutional arrangements and building capacity as a nation, rather than as a series of departments, could enhance this reporting process. These lessons can inform decisions of United Nations agencies, MEA secretariats, Country Parties to these MEAs and the wider sustainability community to reduce the reporting burden and increase the synergistic implementation of environmental conventions.

Key words: Rio Conventions, MEAs, Reporting Burden, Reporting Harmonization, Synergies

## INTRODUCTION

Almost all countries in the world are party to the Rio Conventions: the Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD) and United Nations Framework Convention on Climate Change (UNFCCC). The purpose of these conventions is to provide "international legal instrument[s]" (CBD Secretariat, 2015b) to tackle environmental degradation, with each convention dealing with a specific topic: conservation of biological diversity, reducing desertification and responding to climate change. The texts of the Rio Conventions were negotiated and opened for signature in the lead up to and aftermath of the United Nations Conference on Environment and Development in 1992, with most countries from around the world signing up as 'parties' to the conventions (CBD Secretariat, 2015a; UNCCD, 2015a; United Nations Framework Convention on Climate Change, 2015a). Being a party to a Rio Convention, or any other Multilateral Environmental Agreement (MEA) such as the biodiversity-related conventions or the chemicals and waste conventions, entails a number of responsibilities, including the need to provide a report, on a periodic basis, detailing trends in environmental health and the implementation of each convention at a national level. Indeed, reporting is usually a mandatory responsibility for parties, whereas other responsibilities, such as responding to decisions taken during sessions of the governing bodies of the conventions are invitational and nonbinding (United Nations Environment Programme, 1992; United Nations General Assembly, 1994). Reports often follow a template or questionnaire format, with the convention secretariats providing a series of questions for countries to answer qualitatively or quantitatively. For example, the Fifth National Report to the CBD, due in 2014, asks countries to answer 12 questions about trends and threats for biodiversity, the implementation of National Biodiversity Strategies and Actions Plans (NBSAPs) and progress towards global targets (CBD, 2012). The template formats provided usually differ between each reporting cycle;

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previous national report templates for the CBD National Reports contained many more questions, set out more as a detailed survey (Secretariat of the Convention on Biological Diversity, 2004).

Information submitted can then be used to inform global level analyses of environmental status; the CBD's Global Biodiversity Outlooks, for example, draw on information submitted by parties in national reports (CBD, 2010). The information provided is used at the global, regional or national level to appraise the success of actions to deal with particular issues and indicate areas in which more action may need to be taken or new policies developed. The "analysis and monitoring necessary to inform decisions on implementation" (CBD, 2012) is often contained in these reports.

These reports can be relatively long; for example National Communications to the UNFCCC often contain more than 100 pages (United Nations Framework Convention on Climate Change 2015b); thus completing a report can be a significant undertaking. Because the template for each convention often changes between reporting cycles, each new report is a new undertaking; different data are required and must be analysed and presented in different ways. In addition, since countries could be party to numerous MEAs, they may have to produce a number of reports for multiple MEAs over a period of months, which can lead to reports being submitted late, or not at all. There can also be a significant level of duplication between these reports, meaning the same information could be collated, analysed, packaged and re-produced several times in a short space of time. This is known as 'Reporting Burden', where providing information is more arduous than it is beneficial (United Nations University, 1999). In Least Developed Countries (LDCs) and Small Island Developing States (SIDS), this problem is compounded by low capacity in terms of: monitoring networks to create data on the state of the environment; skilled or sufficient number of staff to perform analysis and write reports; technology and tools to enable analysis; and information systems to effectively manage and share relevant data and information between suppliers and consumers.

The international community has called for more coherent ways to implement and report to MEAs in order to address these issues. The Rio Conventions (and many other MEAs) have been actively working on options for enhancing synergies between the Conventions. In 2001 the Joint Liaison Group (JLG) of the Rio Conventions was established to provide a forum for discussing synergies among the conventions. The JLG report *Options for Enhanced Cooperation Among the Three Rio Conventions* (2004), as well as workshops in Espoo, Finland (July 2003) and Viterbo, Italy (April 2004), identified harmonization of national reporting and capacitybuilding as key cross-cutting areas for synergy generation among the conventions (Convention on Biological Diversity, 2004). In addition, each of the Rio Conventions has taken decisions relating to synergies (such as UNFCCC Decision 13/CP.8, UNCCD Decision 8/COP.9 and CBD Decision XI/6) and the UNCCD has also taken decisions specifically related to the need to harmonize reporting among the Rio Conventions (for example Decision 9/COP.10). The issue of reporting burden and harmonised reporting to conventions has been taken up in a number of projects, particularly by the UNEP World Conservation Monitoring Centre, including a set of four pilot country projects run during the early 2000s to review national reporting processes to six of the biodiversity-related conventions (UNEP-WCMC, 2004). Although most conventions do provide Parties with a short introduction to cooperation when writing a national report (see for example CBD 2012, p5) there has been little guidance published on how to harmonize reporting and information at the national or international level on an ongoing basis.

There has been little sustained engagement in journal literature. From the authors' search for literature in the preparation of this article, there appears to be only a few papers published on the subject of harmonising national reporting. Recent literature makes reference to harmonising national methods for managing and using information on forests (Chirici et al. 2012; Dunger et al. 2012) and using standard templates and terminology for businesses reporting to the global level on mineral resources (Njowa et al. 2014). On the whole, these texts are concerned with single issue, single MEA harmonization at the global level rather than cross-convention harmonization on multiple topics at the national level. Jaques 2009 assesses options for harmonising reporting in the context of the 'biodiversity cluster' of conventions, and recommends the use of 'consolidated reporting templates', where the information requirements of all conventions are presented together in one modular template. There is, however, a larger amount of literature on the general process of increasing synergies among MEAs. In this literature, some authors propose quite large changes to the International Environmental Governance system (Moltke 2001; Najam et al. 2006; Perrez and Ziegerer 2008; Urho 2009; Jhannsditir et al. 2010), while others suggest that the duplicity of governing institutions at the global level has some positives (Le Prestre et al 2004; Najam et al 2006).

The United Nations Environment Programme/ Global Environment Facility (UNEP/GEF) Project to Facilitate National Reporting to Rio Conventions (FNR\_Rio Project) was designed to address this lack of information and develop methods for harmonizing reports at the national level, through governments, and at the global level, through the Rio Conventions. Between 2009 and 2013, six pilot countries – Afghanistan, Eritrea, Lao Peoples' Democratic Republic, Liberia, Mauritius and Palau – developed a process to harmonize reporting to the Rio Conventions at the national level. This process was adapted to the national circumstances of each of the pilot countries and its implementation has led to increases in capacity to report to the Rio Conventions. The project documentation which supports the findings of this paper can be accessed at: http://wcmc.io/FNR\_Rio.

The main aim of this paper is to share the findings of this project with the wider audience of professionals, practitioners and academics looking at national implementation of multilateral environmental agreements and the collection, management and analysis of environmental information. This is particularly important bearing in mind the dearth of academic literature on this subject. By offering analysis of the key challenges to coherent national reporting and a methodology to overcome them, this paper should help to redress this and position the impacts of incoherent reporting into the wider conservation landscape.

### MATERIALS & METHODS

This paper draws on the experience gained from the UNEP/GEF FNR\_Rio Project, which worked with

six countries (see Fig. 1) that are either in the Least Developed Countries (LDCs) or Small Island Developing States (SIDS) groups. This selection bias was intentional, the rationale being that the project would provide the maximum capacity building benefit if it worked with a set of countries with low existing capacity. The purpose of this project (and therefore this paper) was not to identify capacity gaps, but rather to define a process for addressing these gaps.

Each country faced different circumstances and challenges to the implementation of MEAs and harmonizing national reporting, and, as part of the project, assembled a team of National Project Coordinators and National Project Assistants to forward the process of identifying and responding to key challenges to coherent reporting to the Rio conventions. Actions in the project were guided by a global Project Steering Committee, comprising representatives from each pilot country, the Rio Conventions, the GEF, UNEP and UNEP-WCMC. More information on the objectives and activities of the project can be found at the project website: http://wcmc.io/FNR\_Rio.

Two main outputs were developed in each pilot country, as outlined below:

- a **Situational Analysis**, appraising existing arrangements for national reporting to the Rio Conventions, identifying challenges to adopting



Fig. 1: Map showing location of FNR\_Rio pilot countries



Fig. 2: A flow diagram illustrating how the main outputs and activities of the project led to recommended changes in national reporting systems

harmonized reporting approaches and listing priority recommendations for capacity building. Input to the analysis was contributed by stakeholder consultations, often through national level workshops which convened key Figs. in the national environmental information landscape. Analyses were written by national consultants within Terms of Reference defined by the project team, in collaboration with national teams; these are available on the project website.

- a National Manual, summarizing experiences of implementing capacity building recommendations and

Project Objective	Indicators	Baseline	Result	
E-moviment notionally	Number of pilot countries implementing	0/6 pilot countries	5/6 pilot countries beginning	
Experiment nationally- driven integrated processes and approaches to reporting to the Rio Conventions	an integrated approach to reporting to the	implement integrated	to implement integrated	
	CBD, UNFCCC and UNCCD	approaches to reporting	approaches to reporting	
	Number of reports submitted to the	52% of reports submitted	67% of reports submitted	
	UNCCD and UNFCCC during the project (see Table 2)	since ratification/accession	during project (see Table 2)	
Convention linkages and synergies at the national level identified and	Linkages/synergies between conventions mapped, highlighting areas of under- exploited synergy and overlap	0/6 pilot countries have mapped linkages/synergies between conventions	4/6 pilot countries have mapped linkages and synergies	
strengthened	explored synergy and overlap	between conventions	synorgies	
Enhanced country capacity to identify cross-	Number of staff trained in analysis of cross-convention reporting	0 staff trained in analysis of cross-convention reporting	5/6 pilot countries had trained at least 20 staff	
convention programmes and projects for cost effective financing and	Number of coordination meetings between national focal points to discuss integration of convention reporting	No routine meetings taking place	5/6 pilot countries had organized at least 5 meetings	
implementation	Number of national data stores created	No central national data stores	1/6 pilot countries has begun establishment of data store	
Fewer barriers to, and more cooperative environment for, information sharing among national	Number of derivative products created from national reports	No systematic development of derivative products e.g. summary of national reporting, posters, leaflets, brochures	2/6 pilot countries had produced booklets summarizing national reporting	
institutions involved in	Number of stakeholders (institutions,	Average of 10 institutions	5/6 pilot countries engage at	
convention	agencies or organizations) participating	in each pilot country	least 15 or more stakeholders	
implementation	in reporting processes	routinely engaging	in reporting processes	
Better informed policy decision-making at the national and global level	Number of countries actively incorporating data from reporting into national development planning	No countries actively incorporate data from reporting into national development planning	2/6 pilot countries have begun to incorporate data from reporting into national development planning	
	Rio Convention side events promoting integrated approach to reporting	No side events promoting integrated reporting	2 side events held at CBD meetings, 1 side event held at UNCCD meeting	

# Table 1: Results of the FNR\_Rio project, measured according to indicators related to project objectives and compared to baseline conditions before project implementation.

providing a roadmap for future government staff to further enhance integrated national reporting systems beyond the duration of the FNR\_Rio project. The manuals were also written by national consultants within Terms of Reference and these too are available on the project website.

These documents are two key parts of a process for identifying and responding to priority capacity building needs in the context of coherent and harmonized national reporting, as developed by the country participants in this project (See Fig. 2). Implementation of this process should provide a pathway towards an information management structure that can deliver more harmonized and coherent national reports to the Rio Conventions. Fig. 2 summarizes this process, including the sources of information needed to write these key documents and how they can lead to changes in reporting processes.

### **RESULTS & DISCUSSION**

Through following the approach outlined above, the six pilot countries were able to identify the main challenges limiting coherent reporting to the Rio Conventions and develop practical steps through which to respond to them. At a project review meeting, country representatives highlighted that the completion of situational analyses and national manuals were the most important components of the project and suggested that their experiences with this approach will guide future developments to information management structures. This section will highlight country experiences with the methodology, outlining some of the challenges identified by most of the six countries and the four key areas that recommendations fall under. Implications for policy and practice in other countries wishing to use this method are offered in the discussion of the experiences of the project's six pilot countries.

Country	Submission to UNCCD (UNCCD, 2015b)	Submission to UNFCCC (United Nations Framework Convention on Climate Change, 2015b)	Submission to CBD (deadline 30 <sup>th</sup> March 2009)* (CBD Secretariat, 2015b)
Afghanistan	No	Initial national Communication – 12 <sup>th</sup> March 2013	29 <sup>th</sup> March 2009
Eritrea	2012 and 2010	Second National Communication – 10 <sup>th</sup> August 2012	21 <sup>st</sup> April 2010
Lao PDR	2012 only	Second National Communication – 24 <sup>th</sup> June 2013	11 <sup>th</sup> September 2010
Liberia	No	Initial National Communication – 28 <sup>th</sup> June 2013	9 <sup>th</sup> May 2010
Mauritius	2012 and 2010	Second National Communication – 9 <sup>th</sup> November 2011	13 <sup>th</sup> September 2010
Palau	2010 only	None during project	None
Total submissions	6/12	5/6	5/6

Table 2: Reporting status of pilot countries during the FNR\_Rio Project

The foundation for coherent national reporting processes is collaboration and cooperation between the focal points, usually within the institutional arrangements across government ministries, departments and agencies. Each pilot country has different institutional arrangements for their Rio Convention NFPs, with Mauritius and Palau being the only pilot countries to have all three NFPs located in the same ministry. In Lao PDR, Eritrea and Afghanistan the NFPs are located in different government ministries or agencies, and in Liberia they are located in different secretariats of the same government agency, which is a challenge to close cooperation. Where NFPs perform other duties as well (including being focal point for other conventions), time pressures provide an additional challenge. On the other hand this can be beneficial: collaboration is facilitated in SIDS because of the small number of staff working on overlapping environmental issues and their close proximity in the same government ministry. The reporting process is also hindered by the lack of cooperation between bodies responsible for *reporting* to the conventions and those responsible for implementing or collecting data relevant for the conventions. Reporting is an output of and should be an input to implementation, so low collaboration between these ministries or agencies misses opportunities to share information and reduce duplication of effort. The Lao PDR and Liberia analyses noted that reporting is a short-term exercise for the government and that the reports do not inform policy or implementation of the conventions in any way. Improving these arrangements was identified as one of the key barriers to coherent national reporting, and a number of different solutions were proposed. Most pilot countries recommended establishing a formal coordination body to enhance collaboration among NFPs and facilitate cooperation between data providers. Some pilot countries are considering the unification of NFPs into a 'Rio Conventions Committee' in charge of reporting to and implementing all three Rio Conventions. Developing new agreements to strengthen the flow of relevant information to and between NFPs is also mentioned. These recommendations could be useful for other countries which have identified lack cooperation and collaboration among NFPs and relevant agencies as a key barrier to reporting.

The second key barrier identified in the Situational Analyses is that the data necessary for national reporting is often scattered in multiple different organizations. Although some countries have Memorandums of Understanding or constitutional mandates concerning information sharing, these are often not implemented and existing information databases are not properly maintained or updated. An inadequate structure for storing and sharing information between NFPs and relevant research or implementation agencies affects the ability of a country to streamline the reporting process. Lack of environmental monitoring equipment, research capacity and conflict has also contributed to the loss and fragmentation of key datasets.

Streamlining data collection and storage, in order to improve data access and sharing, was a recommendation for many pilot countries to overcome this barrier and provide significant increases in reporting capacity. There is a need to identify key institutions involved in data collection and develop structures to improve the sharing of data between stakeholders, environment ministries and NFPs. The establishment of new, or further development of existing, environmental information databases will enable information to be managed and more easily accessed by the range of data consumers in a national system. Complementing this, data quality standards and baseline datasets will need to be developed and adopted. These recommendations could be useful for other countries to adopt, especially as sharing and accessing data was one of the key concerns expressed by countries at the UN Conference on Sustainable Development (Rio +20) in 2012.

All the Situational Analyses highlighted the lack of capacity in countries for preparing reports to the Rio Conventions. In particular, there is a lack of trained staff with sufficient knowledge of the thematic areas covered by the conventions and relevant data analysis skills. Limited internet connection can make accessing reporting systems or datasets held online more challenging and hinders cooperation and information sharing. Other general capacity-building needs include increased financial support, improvements to basic infrastructure and research equipment and staff.

This is not in itself a novel observation; in using the approach developed in this project, participating countries were able to generate proposals and programmes in response to discrete capacity gaps. The need for training in specific thematic areas relating to the conventions was identified, as well as analytical and technical skills. Capacity for reporting to the conventions could be improved by pooling expertise (e.g. through the creation of task forces) and resources such as laboratories, monitoring equipment and computer systems. As part of the project a number of capacity development training sessions were held in each country to begin fulfilling these needs, as noted in Table 1 below.

Including all of the relevant stakeholders (e.g. government ministries or agencies, universities and non-governmental organizations) into the reporting process is also mentioned as a challenge to harmonized reporting in many analyses. Stakeholders often collect relevant information, but this cannot be used in national reports if they are not engaged, and may even lead to duplication of effort if that data is collected again by another stakeholder. This lack of engagement also reduces the ability to share relevant information coming out of national reports that could inform actions to implement the conventions by government agencies or departments or other actors. Some of the pilot countries shared their existing processes for engaging

stakeholders with others through this project: in Liberia stakeholders are closely involved in the reporting process, as reports are evaluated at stakeholder forums before being submitted to the relevant convention. In Mauritius, review of National Reports by stakeholders was written into draft Terms of Reference for and it was suggested that Memorandums of Understanding with key data-owning stakeholders are signed in order to enhance sharing of and access to data.

The key impacts of this project - implementation of recommendations made by the process described above - are summarised in Table 1. While there are a number of areas in which significant progress has been made, including delivery of training, engagement of stakeholders and increased coordination meetings, the most important area of improvement is in the number of reports submitted to conventions. Before the project started, the average submission rate of national reports from the six pilot countries was only 52%. As shown in Table 1, and in detail below in Table 2, this has increased: 67% of the reports requested were submitted. This is mostly because of the submission of national communications to the UNFCCC, a voluntary commitment, by five pilot countries and completion of the CBD fourth national report by five countries. The next step would be to increase timely submission of reports; as shown in Table 2, four of the six pilot countries submitted their fourth national report to the CBD during 2010, a year after the deadline.

It is important to note, though, that during the course of the project there was only one deadline when all the pilot countries were *required* to submit a report. This was during the fourth reporting phase to the UNCCD, with reports required in 2010 (as a baseline) and 2012 through the Performance Review and Assessment of Implementation System (PRAIS) project. Since the project ended there have been two further requests for reports. At the time of writing (September 2012), three of the pilot countries had submitted their fifth national report to the CBD (deadline 31 March 2014) and five had provided reports to the UNCCD (deadline 31 July 2014). Given that almost all the pilot countries submitted the fourth national report to the CBD over a year after the submission deadline, it is encouraging that some have submitted the latest report on time or only a few months after the deadline. Further, the increase in submission rates to the UNCCD indicates that online, simplified templates could also be used to increase reporting rate. Continued monitoring of submissions will be necessary to assess whether the lessons learned have had a longer term impact on timely report submission.

In looking at the factors contributing to this impact, one of the most important elements was the hard work of motivated individuals from the pilot countries. The countries that gained the most benefit from the project were those with a strong national team that drove the project forward in their country. It is these individuals who will ensure the outcomes of this project continue into the future, and who would need to be identified in other countries wishing to enhance their national reporting in a similar manner. The support provided by the global project team was also a key contributor to this success, by providing: spaces for national teams to share their experiences and good practices; technical assistance on reporting issues; and financial contributions to pilot countries. Each of the Rio Conventions has a capacity building portal of some sort, and these should be used to share experiences between countries and find financial resources into the future.

### CONCLUSIONS

The FNR\_Rio project has demonstrated that LDCs and SIDS, countries with low capacity and sometimes facing major challenges such as conflicts and major environmental degradation, can set up national processes addressing reporting to and implementation of Rio Conventions when provided with support from global actors, in this case the GEF and UNEP. These processes require, as the project has shown, the commitment of individuals within government who champion these national processes and become key drivers of progress in project implementation. A number of actions have already begun to address the recommendations made by countries, and work is likely to continue over the next few years in line with the national manuals created in each country. This paper contributes additional national-level experience to existing literature; for example Chirici et al. (2012) and Dunger et al. (2012), which explored harmonisation of national level processes to enhance reporting to global level institutions in a forestry context.

It is envisaged that the FNR\_Rio approach could be effectively replicated in other countries, specifically those where it is felt that there could be opportunities to enhance the way information is managed and national reports are completed. The 'approach' consists of a methodology that can (and should) be adapted for specific national contexts which will help to ensure the success of its application. By guiding countries through an analysis of their national reporting and information management systems, the approach will enable them to develop context specific recommendations for harmonizing reporting to the Rio Conventions. The use of such an approach is dependent on the hard work of motivated individuals who will ensure the approach is followed-through. However pilot countries throughout the project indicated that additional work at the global level is needed to support these national-level efforts. This includes the options listed below, which could be taken up by a number of different international environmental organisations:

- develop guidance on the data and information needed for implementation of and reporting: this would help clarify the pieces of information needed to complete a national report and highlight those areas in which information requests from different conventions are duplicated;

- support improvements to national environmental information systems: this would aid countries to more easily monitor, analyse, manage, share and report on a number of environmental parameters;

- utilising online reporting tools to streamline report preparation: this would use existing projects, such as InforMEA, Programme Review and Analysis Information System (PRAIS) and the Online Reporting System (ORS), which provide technical solutions to automate the collection and analysis of information;

- improve access to global datasets containing relevant information: this would build on discussions within convention processes and beyond about barriers to data access and actions needed to overcome them;

- promote a consistent approach from MEAs in their reporting processes: building on the work of the Rio Conventions, GEF and UNEP to promote synergies among the conventions, this would reduce the dissimilarities in reporting templates where possible and applicable.

Beyond the Rio Conventions, the outcomes of this project could also have an impact on reporting to other 'clusters' of MEAs, such as the biodiversity cluster (see http://www.cbd.int/blg/). This could be particularly important as the biodiversity-related conventions have all taken decisions related to increasing synergies between the conventions (Herkenrath, 2011) and there is existing analyses of options for enhanced reporting in the cluster (Jaques 2009). An ongoing UNEP project aims to provide guidance on opportunities for enhancing cooperation between the biodiversityrelated conventions, and it is hoped that the lessons learned from the FNR\_Rio project can be built upon in this project (http://wcmc.io/nationalmeasynergies).

Overall, we would suggest that attempts to achieve coherence and synergy in reporting to and implementing the Rio Conventions are best targeted at the national level. Comprehensive national programmes that deal with the four main barriers outlined in the paper - institutional arrangements in government, scattered data, low capacity, low stakeholder engagement - could deliver large improvements to national reporting processes. Submission of timely, higher quality national reports will then aid the countries and conventions to analyse the current state of the environment, review implementation of the conventions and develop a solid foundation for global action. Efforts at the global level to improve synergy and coherence would need to focus on harmonizing the common information required by all conventions and streamline, as far as possible, the conventionspecific information requirements (along the lines proposed in Jaques (2009)). Using a more consistent approach to reporting (e.g. terminology and indicators used, as suggested by Dunger et al (2012)) across the conventions would help to remove a large barrier to achieving synergy and coherence; the diverse reporting arrangements of each convention. This marriage of bottom-up national-level improvements to reporting methods and reduction in duplication of topdown information requests from conventions should effectively develop integrated reporting, supporting better implementation.

#### ACKNOWLEDGEMENTS

The FNR\_Rio project was funded by the GEF, with technical support and the Global Project Team provided by UNEP and UNEP-WCMC. The authors would like to thank the GEF, UNEP and other members of staff from UNEP-WCMC who have worked on this project for their guidance, input and assistance. Support was provided by secretariat staff from the three Rio Convention Secretariats throughout the project, and their comments and participation in meetings helped shape the project. Participants from the six pilot countries were key to successful project implementation, as they were able to drive the project forward in the national context: this article would not have been possible without their efforts over the course of the project.

### REFERENCES

CBD. (2012). Guidelines for the Fifth National Report. Secretariat of the Convention on Biological Diversity. Retrieved from http://www.cbd.int/doc/nr/nr-05/NR5guidelines-en.pdf

CBD Secretariat. (2015b). Fourth National Report. Retrieved March 11, 2015, from http://www.cbd.int/reports/ nr4/default.shtml

CBD Secretariat. (2015a). History of the Convention. Retrieved March 11, 2015, from http://www.cbd.int/history/

Chirici, G., McRoberts, R. E., Winter, S., Bertini, R., Brändli, U.-B., Asensio, I. A., and Marchetti, M. (2012). National Forest Inventory Contributions to Forest Biodiversity Monitoring. Forest Science, 58(3), 257–268. Convention on Biological Diversity. (2004). Options for Enhanced Cooperation Among the Three Rio Conventions. In Subsidiary Body for Scientific and Technological Advice, Eighth meeting (pp. 1–11). Bangkok, Thailand: Convention on Biological Diversity.

Dunger, K., Petersson, S. H.-O., Barreiro, S., Cienciala, E., Colin, A., Hylen, G., and Ståhl, G. (2012). Harmonizing Greenhouse Gas Reporting from European Forests: Case Examples and Implications for European Union Level Reporting. Forest Science, 58(3), 248–256.

Herkenrath, P. (2011). How Biodiversity Synergies Support and Facilitate National Implementation of Multilateral Environmental Agreements to Halt Biodiversity Loss. In T. Honkonen & E. Couzens (Eds.), International Environmental Law-making and Diplomacy Review 2011 (pp. 95–108). Joensuu, Finland: Department of Law, University of Eastern Finland.

Jaques, M. (2009). Reducing the burden of national reporting to multilateral environmental agreements: Options to harmonise reporting for the biodiversity cluster by. Australian National University.

Joannsdótir, A., Cresswell, I., and Bridgewater, P. (2010). The Current Framework for International Governance of Biodiversity: Is It Doing More Harm Than Good? The 2010 Target. Review of European Community & International Environmental Law, 19(May 2002), 139–150.

Le Prestre, P., & Martimort-Asso, B. (2004). Issues raised by the international environmental governance system. Paris, France: Institute for Sustainable Development and International Relations.

Moltke, K. Von. (2001). On Clustering International Environmental Agreements. Winnipeg, Canada: International Institute for Sustainable Development.

Najam, A., Papa, M., and Taiyab, N. (2006). Global Environmental Governance: A Reform Agenda (p. 114). Winnipeg, Canada: International Institute for Sustainable Development.

Njowa, G., Clay, A. N., and Musingwini, C. (2014). A perspective on global harmonisation of major national mineral asset valuation codes. Resources Policy, 39(March 2014), 1–14.

Perrez, X., and Ziegerer, D. (2008). A Non-institutional Proposal to Strengthen International Environmental Governance. Environmental Policy and Law, 5(38), 253– 261.

Secretariat of the Convention on Biological Diversity. (2004). Guidelines for the third national report. Montreal, Canada: Secretariat of the Convention on Biological Diversity. UNCCD. (2015a). UNCCD - History. Retrieved from http://www.unccd.int/en/about-the-convention/history/Pages/default.aspx

UNCCD. (2015b). Delivered reports. Retrieved from http://www.unccd-prais.com/Data/Reports

UNEP-WCMC. (2004). Harmonization of Information Management and Reporting for Biodiversity-related Treaties - Final Report on UNEP Pilot Projects.

United Nations Environment Programme. (1992). Convention on Biological Diversity (p. 28). Nairobi, Kenya. United Nations Framework Convention on Climate Change. (2015a). Essential Background.

United Nations Framework Convention on Climate Change. (2015b). Non-Annex I national communications.

United Nations General Assembly. (1994). United Nations Convention to Combat Desertification. Paris, France: United Nations General Assembly.

United Nations University. (1999). Inter-Linkages: Synergies and Coordination between Multilateral Environmental Agreements. Tokyo, Japan.

Urho, N. (2009). Possibilities of enhancing co-operation and co-ordination among MEAs in the biodiversity cluster (p. 87). Copenhagen: Nordic Council of Ministers.