



Building Capacities to Improve Mainstreaming of Multilateral Environmental Agreements (MEAs) Into Development Strategies and Policies in the Caribbean Region

Lessons learned from applications of the Training Module - Achieving National and Sectoral Development Priorities: The use of integrated environmental assessment tools for improved MEA implementation



International Institute for Sustainable Development

Institut international du développement durable



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August 2013

Acknowledgements

Funding for the development and pilot testing of this training module was provided by the Caribbean Community (CARICOM) Secretariat with the financial assistance of the European Union, by the United Nations Environment Programme–Regional Office for Latin America and the Caribbean (UNEP-ROLAC), and by the Global Environment Facility Integrating Watershed and Coastal Area Management (GEF IWCAM) project. The views expressed in this publication do not necessarily reflect the opinion of the European Commission. We are also grateful for all workshop participants contributing during the workshop with their ideas, suggestions and overall efforts.



Summary

In recent years, governments have begun negotiating multilateral environmental agreements (MEAs) in an attempt to tackle a growing array of environmental challenges. However, mainstreaming these MEAs into national strategies and policies to achieve improvements in the environment is a considerable challenge. In this paper we present an approach to capacity building of MEA mainstreaming targeted towards policy-makers.

In this paper, we share lessons learned from the application of the training module *Achieving National and Sectoral Development Priorities: The use of integrated environmental assessment tools for improved MEA implementation published in 2011* (IISD, UNEP, & CARICOM, 2011). This approach focuses on identifying high-level linkages between MEAs and national development priorities and then identifying specific targets, indicators and policies to improve MEA implementation. We conducted three applications of the approach in the Caribbean at the national and regional levels. These applications (including specific feedback from the participants) revealed the importance of critically reviewing national and regional plans and strategies to identify if the goals of the MEAs are in line with the issues that are being mainstreamed, while assessing the trade-offs and synergies between MEAs and specific policies and programs in meeting mainstreaming goals.

Finally, the applications showed the critical nature of strategic approaches to data collection and assessment development (both regionally and nationally) to support policy development and the importance of cross-sectoral collaborations—especially between policy-makers—to create a basis for bottom-up support for policy-makers as they seek to improve their practical capacities to mainstream MEAs.



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Introduction

Small island states in the Caribbean are facing numerous environmental challenges, including degradation of coastal and marine biodiversity, worsening water quality, environmental pollution and increasing erosion (Harvey et al., 2008; United Nations Environment Programme [UNEP], 2010; UNEP, 2012). Moreover, the state of the environment is vital for the economic development for the region; thus any environmental stresses and changes can have a deleterious impact on agricultural production, food availability and income generation (Trotman, Gordon, Hutchinson, Singh, & McRae-Smith, 2009; Ford, dell'Aquila, & Conforti, 2007; UNEP, ECLAC & GRID Arendal, 2010; UNEP, 2012). Given the current situation, there is an urgent need to implement more effective measures to halt and reverse the region's negative environmental trends (UN, 2010). One of the crucial overarching instruments for tackling environmental challenges in the region is the negotiation of multilateral environmental agreements (MEAs).

Multilateral environmental agreements may be tracked back to the first UN Conference on the Human Environment in Stockholm in 1972, which marked the first occasion that state representatives convened to set the groundwork for international action (Gray, 2000). The resultant *Stockholm Declaration* provided a comprehensive list of norms to “inspire and guide the peoples of the world in the preservation and enhancement of the human environment” (UN Conference on Human Environment, 1972, p. 12). Subsequently, the international community began to address specific environmental concerns leading to a number of agreements. Currently, there are over 500 MEAs, covering such diverse issues as loss of biological diversity, pollution of the atmosphere, ocean degradation and deforestation (Crossen, 2003). Countries in the Caribbean actively participated in MEAs, and most of them signed and ratified the Convention on Biological Diversity (CBD), the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), the Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, the International Convention for the Prevention of Pollution from Ships and the Ramsar Convention on Wetlands (Caribbean Community [CARICOM], 2012). Increasingly, the work in the international environmental field is focused on implementation, more than on the development of landmark agreements (UNEP, 2012) and thus the interest is in effective implementation of existing agreements, addressing gaps and promoting synergies among MEAs and with sectoral and development strategies (UNEP, 2009).

Mainstreaming is proposed as an effective tool to help to enhance the policy development targeting agreements such as MEAs by increasing policy coherence, addressing trade-offs and capturing the opportunities for synergistic results in terms of meeting social, economic and environmental priorities (Kok & de Coninck, 2007). In its early applications, mainstreaming the environment into development plans (such as poverty reduction strategies) achieved mixed results that insufficiently addressed the needs of the poor and the contributions of the environment to their well-being (Bojö, Green, Kishore, Pilapitiya, & Reddy, 2004). However, mainstreaming is currently regarded as an innovative instrument replacing stronger—and often ineffective—mechanisms of coordination (Jakubik, 2007). With a specific focus on environmental issues, so-called environmental mainstreaming (EM) has been defined as “the informed inclusion of relevant environmental concerns into the decisions of institutions that drive national, local and sectoral development policy, rules, plans, investment and action” (Dalal-Clayton & Bass, 2009). Environmental mainstreaming as such was introduced in the Millennium Declaration in 2000 largely as a top-down approach to operationalize the integration of sustainable development principles (Dalal-Clayton & Bass, 2009). In this respect, the understanding of mainstreaming is close to “integration” or “reciprocal mainstreaming” indicating that both the context and the development aims are considered as important as environmental aims, and that all three aspects should closely interact (Dalal-Clayton & Bass, 2009). In the context of MEAs, mainstreaming could specifically assist in highlighting development–environment issues and linkages relevant for the MEAs, identifying weaknesses in policy, legal and institutional frameworks for environmental sustainability, and prioritize targeted

actions, research and policy to implement the MEAs (UNEP, 2009). However, recent progress in considering mainstreaming as a highly relevant policy instrument has also identified numerous challenges, including a lack of clear understanding of the meaning of the integration principle, a lack of political consensus¹ and the status of environmental mainstreaming as an autonomous part of policy-making instead of a planned initiative (Halpern et al., 2008; UNDP, 2009; Kok & de Coninck, 2007; Caribbean Natural Resources Institute [CANARI], 2008; Integra, 2008).

In terms of actual mainstreaming efforts, Soussan (2007), UN Development Group (2009) and UNDP (2009) suggest promoting coordination and collaboration among policy-makers and other stakeholders to integrate development and environment at all levels from strategies to policy and program implementation. Such collaboration depends upon effective participatory processes during which environmental managers and decision makers interact and co-produce knowledge with their counterparts from other sectors, with researchers and public (van Buuren & Edelenbos, 2004). This requires an active role for policy-makers and other stakeholders to act as catalysts of knowledge co-production (Edelenbos, van Buuren, & van Schie, 2011). However, recent surveys of environmental officers by Maiello Viegas, Frey, & Ribeiro (2013) showed that they do not use participation to co-produce knowledge; rather, they rely on knowledge provided by external experts and thus miss the opportunity to accumulate new and integrated knowledge through collaborating with their peers and other stakeholders. This limited capacity of policy-makers to bridge domains (Naylor Coombes, Venn, Roast, & Thompson, 2012) and integrate different types of knowledge and across different stakeholders' group could have direct implications for their capacities to achieve integration by, for example, linking environmental and development priorities including those relevant for MEAs (Kok et al., 2010). A critical process when focusing on mainstreaming is thus increasing the capacities of policy-makers to act as active "integrators" and transcend the boundaries of their sectors and agencies (Feldman & Khademian, 2007). Such active roles could be strengthened by improving the capacities and competences of integrators by recognizing and institutionalizing more flexible mechanisms in collaboration and interactions (van Buuren & Edelenbos, 2004; Cornell et al., 2013). However, when studying the capacities of policy-makers in the Caribbean, UNEP (2009; 2012), CANARI (2008) and Trotman et al. (2009) identified gaps in their abilities to address environmental challenges due to limited capacity to implement and enforce existing legislation, poor institutional arrangements, and limited experience with working with cross-sectoral data and information.

Given the need to implement more effective measures to halt and reverse the negative environmental trends in the Caribbean countries, and the limited capacities of policy-makers to transcend boundaries, this paper presents an approach to capacity-building for policy-makers to improve the mainstreaming of multiple MEAs into development priorities that builds on cross-sectoral collaborations and shared knowledge production between scientific and policy-makers' knowledge. Keeping these in mind, we synthesize lessons learned and challenges encountered during the application of the capacity-development approach to three case studies conducted in the Caribbean region. Specifically, we provide insights and discuss challenges related to mainstreaming MEA into national and regional strategies and priorities. We also analyze our experiences with (and the potential role of) knowledge co-coproduction that transcends research, policy, and sectoral boundaries.

Section 2 provides an overview of the methodological basis, including our approach to capacity-building for mainstreaming of MEAs. In Section 3 we provide examples of the specific applications of the tool in capacity building in the Caribbean and then outline key contributions of the tool to improving MEA mainstreaming capacities. Finally, we present concluding remarks on the lessons learned and suggestions for future applications and research needs.

¹ This has to do with the endless debates concerning the role of environmental protection—economic competition and environmental protection were no longer seen as competing objectives, but as complementary (Halpern et al., 2008).

Approach

As a region, the Caribbean is significantly involved in MEAs, and most of its countries have signed a large number (CARICOM, 2012). However, they often face multiple challenges when trying to progress with implementation of the agreements. During our initial discussions with stakeholders (including representatives of the regional and international agencies such as CARICOM, UNEP, Organisation of Eastern Caribbean States [OECS] and decision makers in the region), it became clear that they were very concerned about the worsening quality of regional ecosystems, which impacts the quality of local environments and potential revenues from tourism. They were also concerned about the lack of integrated planning and cooperation between key players that could influence any further decisions and actions. The stakeholders were interested in three major areas:

- identifying specific means of mainstreaming of MEAs into development priorities.
- establishing linkages between MEAs so they would not be implemented in isolation.
- exchanging experiences across the region to learn about successes and failures.

These demands necessitated elaborating an approach to capacity building. It would improve their knowledge and skills about mainstreaming to enable a structured dialogue among stakeholders in the targeted countries about their development and priorities, about the role of MEAs and their implementation within these priorities, and about institutional and policy-making challenges.

Phase One: Interviews to Scope out the Challenges/Issues

We applied a sequence of methods to better understand what specific challenges and needs in capacity-building exist in the context of mainstreaming MEAs. First, we conducted a series of interviews with decision makers and policy-makers in four Caribbean countries. As suggested in the literature, it is important to consult stakeholders when framing the objectives and priorities of future initiatives, including those focused on capacity-building (Cornell et al., 2013; Stirling, 2006). The interviews were conducted from August to November 2010 by the authors; on average, each in-depth interview lasted from 45 to 75 minutes. The 17 respondents included heads of departments involved in environmental management, planning and tourism and fisheries. In combination with the literature review (which focused on MEA implementation), these interviews identified cross-sectoral linkages relevant for MEAs, available data and further needs to support policy and program development to implement MEAs—as well as major issues that should be accounted for when addressing mainstreaming of MEAs in term of collaboration and capacities. These interviews were also an effective instrument for making contact with relevant stakeholders. The interviews stimulated actors' interests, making them feel represented in the upcoming discussions of capacity building for MEA mainstreaming. From these interviews, we also gained information about current practices in mainstreaming, their experiences with working with policy-makers from different agencies and the type and quality of participatory activities between and with stakeholders' groups, in the countries and in the region.

Phase Two: Capacity-Building Tool Description to Assist in Mainstreaming of MEAs

Our approach to capacity building places national and local sustainability (and its development challenges) in the context of goals and priorities outlined in the MEAs to understand the linkages. There are approaches to mainstreaming suggested in the literature (for example in UNEP (2009), Soussan (2007), Dalal-Clayton and Bass (2009)) targeting diverse issues such as coastal

management, poverty reduction and environmental issues. These approaches outline a series of steps for policy-makers wishing to integrate these issues into plans, strategies and policies. The overview of these approaches emphasizes the importance of looking at linkages between the issues that are being mainstreamed and high-level development priorities, addressing institutional barriers and also creating learning opportunities for policy-makers. From capacity-development perspectives this means that the approach needs to be flexible, to account for the diversity of stakeholder views, level of experiences and knowledge (UNDP, 2009). It would necessitate an approach that could be applied both at the national and regional scale depending on the needs of the stakeholders and the specific aims of the capacity-building. Given these key concerns (and guidance from the interviews conducted in the previous phase), we determined that the capacity building should help participants assess the relevance of the MEAs in the context of national development priorities; improve their ability to identify key areas of integration—in which MEAs and needed policies go hand in hand with other development priorities; assist in setting targets and identify indicators to monitor achievement of priorities for MEAs in the context of the specific priorities; and, finally, help participants account for potential future challenges in mainstreaming and implementing MEAs in the country/region.

In terms of actual mainstreaming issues, Soussan (2007) suggests starting with national development goals, targets and objectives as points of departure to demonstrate the relevance of the issues that are being mainstreamed at this level. To address the challenges of integration at the level of development goals and build on this further by looking at targets, indicators and policies, we centred our approach to mainstreaming on the **Driving Forces–Pressure–State–Impact–Response** (DPSIR) framework developed by the European Environmental agency (EEA) (1999) and Borja, Galparsoro, & Solaun (2006) that allows the consideration of priorities within MEAs in the broader development context and across different MEAs. The single components of the DPSIR approach have been constructed as a causal pathway integrating the subsequent steps of environmental management and monitoring (Müller & Burkhard, 2012; Karageorgis et al., 2005) and it also allows a better systems and comprehensive view of an MEA. Furthermore, DPSIR is also the core framework of the environmental status reports supported by UNEP that were completed in a number of the Caribbean countries and at the regional level.² Use of the same framework enables integration of research data and knowledge of policy-makers during the capacity-building process and creates potential opportunities for their use in the future. Based on IISD, UNEP, and CARICOM (2011), the specific consecutive steps undertaken during the capacity-building sessions could be described as follows:

1. Clarify status and linkages between MEAs and development priorities:

This step is designed to provide a pragmatic analytical approach for clarifying how MEAs benefit national development priorities. The basic idea is that each MEA is designed to bring about an improvement in a particular state of the environment. The positive impact of this improvement is the maintenance of (or an increase in) the ability of ecosystems to provide certain services both to people and back to the environment. The benefits to human well-being can be tracked back to specific ecosystem services supported by the MEA as well as how these services each advance human well-being. Sustainable use of these ecosystem services and natural resource assets is increasingly recognized as a key factor in ensuring economic development and improvement in human welfare (UNEP, 2009).

2. Identify synergies among focal MEAs: This session helps to improve the understanding of mainstreaming MEAs into diverse sectoral priorities and specifically clearly delineates major causes and consequences of actions in other sectors on MEAs. Viewing an MEA through the lens of the DPSIR framework produces some important insights for identifying synergies among MEAs. It allows the identification of specific linkages between, for example, land-use change, expansion of tourism, changes in agricultural practices in MEAs

² Of the 18 countries in the Caribbean, 12 developed State of the Environment reports and seven of them updated them within less than five years (UNEP, 2012).

and policies. Analyzing the **states** and **trends** of the environment is central to identifying how the obligations and priorities embedded in MEAs are actually unfolding in a country. An analysis of state variables is accompanied by an understanding of the **drivers** (driving forces or indirect drivers) and **pressures** (direct drivers) that affect state variables individually and collectively. Drivers (including demographic changes, economic and societal processes) lead to more specific pressures on the environment (including, for example, land-use change, resource extraction, emissions of pollutants and waste, and modification and movement of organisms). These pressures lead to changes in the **state** of the environment (e.g., climate change, stratospheric ozone depletion, changes in biodiversity and pollution or degradation of air water and soils), in addition to those that result from natural processes. Completing the DPSIR for each of the MEAs and then comparing them makes visible the explicit linkages between key pressures, drivers and states in the environment that are relevant across multiple MEAs.

- 3. Setting targets and identifying indicators:** This session uses insights gleaned from the first two sessions to provide guidance for identifying key targets and indicators related to MEA outcomes that are linked to different elements of the DPSIR. It aims to help to participants better understand the relevance of the MEA for their area by identifying specific targets that are necessary to ensure progress in implementation of policies aiming at MEAs, but including targets in different sectors that could improve MEA implementation. Similarly, indicators could cover diverse sectors, approaches to institutional development, and participation that could help monitor progress in achieving the targets. The indicators aim to monitor the integration of the issues relevant for the MEAs into development, sectoral policy and improvements in the environmental states (UNEP, 2009). Here, the key focus is also identifying synergies between targets and indicators relevant for different MEAs in order to better utilize the capacities of the policy-makers.
- 4. Identify a portfolio of MEA policies for achieving future outcomes:** This step builds on the DPSIR analysis framework to catalogue the key policies in support of a specific MEA, identify major gaps, and make recommendations for achieving the desired future MEA outcomes. It allows participants to consider a diverse set of policies aimed at different elements of the DPSIR, including responding to drivers and pressures and trying to improve the state of the environment. Using the DPSIR allows a policy-maker to map which policies are being implemented that address environmental states, direct pressures, indirect drivers as well as the impacts of changes in the state of the environment. This session therefore provides a systems-level view of the policy landscape with a detailed list of relevant policies.
- 5. Assess risks and opportunities and improve and adapt as necessary:** In this step we focus on identifying the MEA implementation's risks and opportunities under different plausible future scenarios developed in published assessments such as UNEP 2007, 2010, 2012 and IPCC (IPCC, 2012). It aims to explore the relevance of the targets and policies identified in the previous steps in the context of potential future challenges that the region might face.
- 6. Prepare MEA policy planning brief:** This session helps the participants compile all of their results from the capacity-building training into a policy brief designed to help politicians and policy-makers understand—with supporting evidence—the importance of successful MEA implementation to advancing national development priorities. This step summarizes the results from the previous five steps in the form of a policy brief. The audience for the policy brief is at the Permanent Secretary and Minister level, and it seeks to demonstrate the relevance of a particular MEA (or set of MEAs) to national development priorities and other line departments, and, in so doing, garner additional support for implementation and enhanced impact.

Phase Three: Tool Application in the Caribbean

The third element in the methodological approach focused on conducting capacity-building training sessions in the Caribbean to implement the outlined steps to mainstream MEAs into development priorities. We applied the approach to three training workshops—in Suriname in 2011; St. Vincent and the Grenadines in 2012; and St. Lucia in 2013. The six steps were implemented through a participatory process combining presentations, small group work, plenary discussions and working with provided handouts that presented published research relevant to the training (Figure 2). In total, three capacity-building training sessions were conducted that lasted three to four days, with an attendance of from 10 to 26 participants (for a total of 89 participants) (Table 1 contains an overview). Based on recommendations from the literature, we mostly worked with medium-level policy-makers at ministries, agencies on the environment, agriculture, tourism, spatial planning and health because these policy-makers can play crucial roles in shaping local policies (Maiello et al., 2013; UNEP, 2009; Kok et al., 2010). After each training, evaluations were conducted to gather participants’ feedback; we collected 86 evaluation forms to gain insights into the taken approach and its relevance for the participants’ capacities to mainstream MEAs. Finally, a brief report that summarized the key results was prepared after each application and provided to all participants.

Table 1. Overview of the case study applications

Location	Suriname	St. Vincent and the Grenadines	St. Lucia
Focused MEAs	CBD, SPAW, Cartagena protocol, LBS	CBD, SPAW, CITES	CBD, SPAW, CITES, Ramsar
Scale of application	Regional	National	Regional
Key focus	Mainstreaming into sectors prioritized by the participants	Mainstreaming environment into poverty reduction	Institutional aspect of mainstreaming
Sectors	Agriculture, forestry, fisheries, tourism	Agriculture, forestry, fisheries, tourism	Institutional structures and agencies with focus on forestry, fisheries, tourism and trade
Participants affiliations	30% Ministries on agriculture, fisheries, forestry 25% Ministries and agencies on environmental protection and health 20% Ministries, agencies for economy, transport and planning 15% Ministries and agencies for tourism and recreation 10% Ministries and agencies on health and public safety	30% Ministries on agriculture, fisheries, forestry 30% Ministries and agencies on environmental protection and health 20% Ministries for tourism and recreation 10% Ministries for transport and urban planning	25% Ministries on agriculture, fisheries, forestry 30% Ministries and agencies on environmental protection and health 20% Ministries and agencies for tourism and recreation 15% Ministries, agencies for economy, transport and planning 10% Ministries and agencies on economic development

Building Capacities to Improve Mainstreaming of Multilateral Environmental Agreements (MEAs)

Figure 2. Participants during the training in Sr. Lucia (Photos: Shunae Samuels)



Results from the Case Studies

Key Challenges in Mainstreaming MEAs Suggested by Policy-Makers in the Region

Interviews with key policy-makers in the regions validated the need for capacity building that focuses on providing specific hands-on experiences for policy-makers in integrating MEAs into on-the-ground development challenges (Table 2). Furthermore, the interviewees emphasized that the large number of MEAs to be implemented (in contrast with the limited human resource capacity and financial resources in a country) points to the importance of creating a specific role for MEAs in development planning and priority setting. Successfully addressing this challenge can bring additional resources from across a range of ministries to bear on MEA implementation. MEAs are frequently seen as only being relevant to a single ministry, and there is consequently little collaboration or complementary financial and human resources capacity brought to bear on implementation. Successfully addressing this challenge requires identifying and communicating the importance of an MEA to various line ministries and departments.

The interviews also highlighted the need to support policy-makers in working with available information from regional and national assessments to better integrate research outputs into the mainstreaming and policy processes. This could usefully highlight the policy relevance of these research outputs and help reduce some of the challenges that these areas face, such as a lack of data on key environmental issues and information on trends in the environment to create baselines for targets and indicators, including for MEAs. It was noted that descriptions of best practices are often available, especially in regional assessments: this fact was highlighted as important for capacity building.

Several interviewees also mentioned the intense reporting requirements of MEAs, which far outmatch the available human resource capacity to respond to the reporting and travel/meeting requirements. To successfully address this challenge, several interviewees recommended a more standardized approach to MEA reporting. Dealing with this challenge in the proposed training was out of the scope of this project, but it is worth thinking about how a continuous environmental national reporting system could help serve a standardized MEA reporting process.³ Finally limited funding was identified as a major barrier to MEA implementation, specifically with respect to enabling full-time staffing complements to focus on different MEAs.

³ Since the interviews were completed, in 2011 CARICOM has initiated a project on harmonized reporting for MEAs focused on biodiversity in the Caribbean region.

Table 2. Overview of types of responses collected during the interviews

<ul style="list-style-type: none">■ It is important to highlight the national benefits of MEAs. The minister needs to see how and why it is good for the country; it is important to make their relevance locally specific.■ It is important to show that the MEA fits into the national development plan and is not only additional work.■ There is a tendency not to take on a specific MEA due to a perception that it belongs to a single Ministry and not relevant to others.■ There is a lack of the practical knowledge and awareness needed to mainstream to see the impacts of MEA in strategies and the specific linkages.■ From the livelihood impact perspectives, policy-makers have limited knowledge of the linkages between priorities in the MEAs and local livelihoods and how to incorporate MEAs into poverty reduction and employment strategies.■ The countries have laws related to the MEA, but they are not developed because of MEAs: they are developed because they are important for the country; however, they need to be reviewed, and further synergies can be identified if this review is done in a focused manner.■ Countries in the Caribbean are small and often have few people working in this area: Because there are so many MEAs to manage, it is important to share experiences across the region.■ We need to increase technical capacity in mainstreaming and implementing MEAs and to strengthen cooperation within the country and in the region.■ Sharing information about best practices as real-life examples is key, not just about the challenges but also examples of where policies have been implemented that have caused positive changes.■ Capacity gaps: Communication at the national level is very limited on MEAs and mainstreaming—getting all stakeholders involved, through horizontal (all the various departments) and vertical (general public to national level) is important. There is also a need for more information sharing between the departments; and policy-makers taking ownership of the process of collaboration and policy making.

Application of the Approach for Mainstreaming of MEAs in the Caribbean

Application 1: MEAs Relevance for Key Sectors in the Region

Tourism, agriculture, forestry and fisheries are the key sectors of the economies in the Caribbean (Trotman et al., 2009), providing job opportunities and tax revenues. These sectors are also strongly dependent on the quality of the local environment to provide ecosystem services, and their importance was brought up during discussions at the first regional workshop in 2011, held in Suriname. In this application the aim was to test whether the created approach to capacity building could support policy-makers from different countries in the region improve their understanding of mainstreaming and their capacities to use this knowledge in their work. Because of the regional character of the workshop, participants were encouraged to share experiences and examples from their countries when working through the training and identifying targets, indicators, policies and overall opportunities and needs for mainstreaming of MEAs.

When looking at the linkages between development priorities and key drivers and pressures, the focus was on the listed sectors as major source of revenues both at the regional and national levels; however, they also create significant pressures on the environment driven by interest in tourism in resorts development, expanding cruise ship tourism, increasing demand for natural resources and for key species such as conch, turtles, parrots, lobsters and medicinal plants. In the next phase of the training we looked at the targets, indicators and policies relevant for MEAs and chosen

sectors in order to identify cross-cutting policies and targets across the studied MEAs and sectors. Here, the central interest was in identifying national-level policies including: planning documents targeting land-use changes; physical and infrastructure planning; regulations on use of pesticides; waste handling and wastewater treatment related to tourism development; and cooperation between marine protected areas management and monitoring in the region. The identified targets and indicators were predominantly focused on improving the state of the environment, including in areas allocated as marine protected areas for which data from some of the Caribbean countries are available in environmental reports and regional assessments.⁴ The prepared policy briefs emphasized the relevance and importance of MEAs for key sectoral ministries, including their current and planned activities and their contribution to MEAs, but also emphasizing the importance of coordination between the studied sectors to minimize trade-offs such as the documented high demand for high-value fish (UNEP, 2012) by tourism, which creates income for fishermen while impacting the fish stock.

Finally, feedback provided by the participants indicated that they found the activities and the overall structure of the training relevant for their work; however, they suggested better coordination of published data and information at the regional and national level so that policy-makers are aware of the data. They also suggested more focus on institutional aspects and discussion of ways of effective collaboration between agencies and ministries to implement mainstreaming efforts.

Application 2: Mainstreaming MEAs Into Local Livelihoods to Reduce Poverty

The second application of the training was done at the national level in St. Vincent and the Grenadines, looking again at a diversity of sectors such as tourism, agriculture, forestry and fisheries but more in the context of their contribution to local livelihoods and poverty reduction. These key sectors are not only dependent on ecosystem services and biodiversity while being important for the economy—they also provide opportunities for local livelihoods that depend on the quality of the environment as well. Many poor people derive their livelihoods from fisheries, tourism and agriculture, and thus changes in access to these resources could impact their livelihoods directly (UNEP, 2009). On the other hand, extensive use and exploitation of natural resources to ensure their livelihoods could negatively impact the environment. To address these challenges, participants discussed the role of alternative livelihoods and poverty reduction through small-scale economic activities and ensuring food security both from the perspectives of both national poverty reduction strategies and the MEAs. Some case studies illustrating specific livelihoods were published in regional and national reports. In this context, emphasis was placed on critical development priorities in terms of reducing poverty, as well as how the vulnerable and poor could act as stewards of the environment. The national focus of the workshop allowed a more in-depth discussion about priorities, targets and indicators and policies with direct linkages to specific agencies and data sources—specifically on how they could be harmonized across sectors to mainstream the MEAs and reduce poverty.

When looking at the linkages between development priorities in the context of the poor, the main focus was on their significant dependence on natural resources and the environment to ensure food security, create income, and support cultural and spiritual values. In particular, income opportunities that encourage unsustainable behaviours (such as poaching the eggs of protected birds, closed-season fishing for conch and lobster and illegal trade in protected species) were listed and illustrated with national and regional data. One important focus was on improving the environment while also reducing poverty. This led to indicators that centred on monitoring the population of critical vulnerable species, as well as enforcement of environmental regulations; however, participants also stressed the high levels of poverty in valuable natural areas and the participation of poor people in designing and enforcing environmental regulations, especially in

⁴ This included also meeting the “Caribbean Challenge,” a regional initiative.

protected areas. The participants also considered it important to look at the cultural and spiritual values provided by the environment, which are seldom considered when mainstreaming MEAs in a country. They suggested including this contribution in the poverty reduction strategies by, for example, ensuring the access of poor people to culturally significant sites and monitoring this access regularly. Here the participants focused on identifying those sectoral policies that could link sectoral priorities, poverty reduction and mainstreaming of MEAs.

Finally, feedback provided by the participants indicated that they found the national focus useful in terms of very specific discussions on targets, policies and responsible departments and agencies, getting to know their colleagues and sharing their experiences and activities. They suggested that stronger involvement from the Ministry of Finance, the Prime Minister's offices and other critical government agencies focusing on budgets would need to ensure in the future applications.

Application 3: Mainstreaming MEAs Into Institutional Processes, Collaborations and Policy-Making

The third application of the training focused on the regional level, bringing together participants from more than 10 Caribbean countries. The training focused on ensuring that equal attention is spent on looking at mainstreaming into actual sectors, as well as changes in institutional processes to include participation and collaboration. Here, the key sectors identified included tourism, agriculture, housing, infrastructure development and spatial planning, and natural hazards/disasters. Like the previous applications, the focus was on drivers and pressures such as increasing demand for tourism, food security, demographics and trade. Specific challenges included lack of proper management of protected areas, lack of involvement of the local population (including the poor) who are dependent on resources from these areas, lack of harmonization of legislation with MEAs' requirements, low enforcement of existing legislation; limited cross-sectoral, cross-departmental, ministerial collaborations to address impacts, and overall, a limited focus on emphasizing better links between the environment and the economy.

In terms of targets, attention was devoted to addressing legislative, institutional and participatory gaps in ensuring mainstreaming of MEAs, such as: monitoring adoption of legislation and regulation; monitoring implementation of best practices (especially in fisheries and agriculture) based also on published data and experiences with different practices; monitoring levels of budgetary allocation; monitoring institutional synergies (cooperation in program and planning between different agencies, departments, jurisdictions, cross-cutting meetings; participation in shared reporting); and monitoring stakeholders' involvement in key planning, policy and strategy development. Published data on the state of institutional collaborations and monitoring activities were limited in the national and regional reports. The identified critical policies into which MEAs need to be mainstreamed included: the Physical Planning Act (PPA) which is implemented through plans that control where/how development and zoning is done and thus influences designation of protected areas, as well as development in protected areas and in sensitive coastal areas and watersheds; enforcing environmental impact assessments (IEA) requirements in sensitive areas; and reviewing the development of growth and social strategies that guide priority areas for development. They also listed the importance of looking at the approaches guiding public sector operations; the public sector's operations are strongly based on hierarchies, and it is critical to revise roles and responsibilities to increase communication, collaboration and exploration of synergies across departments, ministries and agencies.

Finally, feedback from the participants showed that they found the policy brief very useful since it provided an opportunity to create a communication tool that could help articulate the importance of mainstreaming and specific actions to representatives from other sectors and agencies. They also felt that future applications of this training could be strengthened by integrating more quantitative information on specific needs such as institutional approaches to mainstreaming, collaborations, and practices in sharing of information.

Discussions

The three applications of the developed approach provided insights about specific linkages between MEAs and development priorities, target setting and selecting indicators and identifying/reviewing policies for their ability to account for relevant mainstreamed goals. Each application provided context-specific examples, such as in a set of key sectors, for local livelihoods and poverty reduction, and on institutional aspects of mainstreaming. Overall, the approach was shown to be useful in accomplishing the goals of the training. Participants especially appreciated the hands-on character of the application, during which they had opportunities to explore the needs for mainstreaming (and how to operationalize it) in discussion with other participants in the group and plenary discussions, while working with published national and regional reports (Table 3).

Working at the level of national/regional development priorities—which is suggested in the literature as a starting point for mainstreaming (UNEP, 2009; Soussan, 2007; Dalal-Clayton & Bass, 2009)—major challenges for the participants were identified as: outlining specific contributions of the MEAs by listing examples of specific marine ecosystems for fish production; describing the quality of the beaches needed for successful tourism development; and identifying the contribution of protected habitats and their specific relevance to poverty reduction. This is probably related to the fact that, for many of the participants, working on mainstreaming in a practical way was a new experience. In particular, based on their experiences there was very little to build on in their national and regional document of relevance to the role of MEAs. Furthermore, integrating the MEAs and other possible issues (such as climate change adaptation) would require rethinking the development priorities not just looking for entry points to mainstream into national development agenda (as stated in UNEP, 2009, p. 15). This became apparent during the latter part of the applications, with the focus on shifting targets and indicators and especially policies including: changes in requirements for tourist facilities; changes in types of tourism; changes in currently applied agricultural practices; more extensive use of EIAs; and consideration of different large- and small-scale wastewater treatment facilities on land and in the water. These would require considerable changes in how development priorities are implemented, and in some cases changing overall priorities e.g., excluding tourism in some areas, limiting cruise ship traffic, and shifting priorities of growing certain crops—such as bananas—which are grown in large areas. However, achieving such results would require political will, finding champions within key agencies, and building collaborations across diverse agencies to ensure that these changes are included into development strategies and plans. Furthermore, coordination at the regional level is important to ensure the integrity of those ecosystems that operate beyond national boundaries (Ford et al., 2007; UNEP, 2012); in those cases, mainstreaming MEAs and regional plans and strategies could trickle down into national-level strategies.

Using the DPSIR framework in a series of steps helped unpack the specific types of drivers and pressures influencing the states as well as the trends and impacts on the environment on issues outlined in the MEAs. It provided the participants with deeper insights about the specific linkages of development processes for issues relevant for MEAs—and thus ideas for targets and indicators and policies moving beyond just those that influence biodiversity, species and protected areas reveal for MEAs more directly. Because the DPSIR framework is applied in regional and national state of the environment reports, it also made it easier to plug in data and point out specific gaps, such as limited data on use of environmental resources by the poor. As with other applications (Karageorgis et al., 2005), when applying the DPSIR framework there are considerable challenges in distinguishing between drivers and pressures since, for example, climate change was often seen both as a driver influencing changes on the environment (as well as policy development) and a pressure impacting natural resources and people's livelihoods. DPSIR was a useful tool for directly reflecting on cross-sectoral linkages that are often neglected in the previous steps when looking at

broader development priorities (such as achieving certain level of tourism development), but with DPSIR, the impacts on water, land, biodiversity, as well as also local livelihoods and interactions could be brought under one framework with other pressures such as agricultural practices and resource use.

For many participants, setting targets was a new area, and they had limited information about what would be feasible targets from both national development and MEAs perspectives. At the national and regional levels, participants had experiences with monitoring impacts and trends in the environment but had less experience and information on the feasibility of targets in their countries. This is also due to the lack of research and data for many of these countries in areas relevant for MEAs. Addressing some of these challenges would require working with developed assessments and studies and encouraging better collaboration between researchers and policy-makers to improve opportunities for knowledge co-production when setting research priorities and when presenting research outputs so they fit into the policy process. The interests of the participants went further—not just using this information to guide policy development, but also integrating it into education systems and using it to improve the knowledge of key stakeholders regarding beneficial practices while improving understanding of the reasons for implemented legislation such as closed fishing seasons. They suggested more regular and flexible processes (for example, those mentioned by Cornell et al. [2013]) that allow for a two-way exchange with key stakeholders outside of the research and policy arenas to increase their buy-in of MEA mainstreaming—they can thus see themselves as part of the solution instead of contributing to the problem.

On the other hand, when focusing on institutional structures and procedures as critical parts of mainstreaming (suggested by Dalal-Calyton & Bass, 2009; Soussan, 2007) participants started to recognize the importance of monitoring and having specific targets for these areas as well. The policies and strategies for the key sectors (along with the institutional structure through which the sector works) need to be analyzed in terms of their implications for priorities outlined in MEAs. Here participants had significant level of experience with their own bureaucratic processes that discourage things like cross-sectoral collaborations, the shared review of planned legislation and shared monitoring. For many of the participants, learning from their counterparts (and sharing their experiences in policy design) and working with politicians on issues applicable to MEAs were considered key benefits of the capacity-building.

Finally, as suggested in the literature (Naylor et al., 2012; Cornell et al., 2013) participants recognized the need for a more targeted approach to policy-making, one that is not only cross-sectoral but also relevant across diverse stakeholder groups. This could also create a capacity basis for mainstreaming so that policy-makers and other stakeholders could actively ask for better interaction at higher levels in order to complement the usually top-down approach to mainstreaming. However, as experienced during the application of capacity building in the Caribbean, the participants predominantly came from ministries and departments dealing with natural resources, such as biodiversity, forestry, fisheries, agriculture, tourism and infrastructure development. As the participants mentioned, it would be critical to increase participation from these sectors, but also from the Ministries of Finance and Trade, as well as from high-profile agencies such as the Prime Minister's Office to signal the importance of mainstreaming at the institutional level.

Table 3. Overview of participants' feedback on the major benefits of the capacity building for mainstreaming applications

- The training provided opportunities to pull together scientific information and made it relevant for policy making and improving the ability to express synergies with development and other MEAs.
- Provided good opportunities to exchange ideas between experienced participants and novices working on MEAs; policy brief provide a good opportunity to summarize our learning.
- Made me aware of approaches and issues in other countries and provided opportunities to exchange ideas about practical challenges in dealing with MEAs.
- Provided me with a lot of useful linkages on how to connect my work on the environment with other sectors especially with livelihoods and poverty.
- It will help me to better articulate commitments under various MEAs; it will also help me to work better with other ministries and in target setting.
- The workshop provided lots of new ideas about how to connect with other sectors and ministries; my work is very technical and it is very useful to make the connections to other relevant areas.
- Made me aware that, as we are responsible for parks, we need to collaborate more with other ministries when doing research, monitoring and indicators.
- Incorporating MEAs into our work plan, as many areas that MEAs are focusing on are relevant for my work.
- It will help me to better articulate commitments under various MEAs; it will also help to better work with other ministries and in target setting.
- More holistic understanding of MEAs and better able to incorporate them into the work programs; in a better position to advocate and strategically articulate the incorporation of MEAs into national programs and policies.
- Information from the workshop could be used to get greater buy-in for MEAs.
- Ability to integrate MEAs into work programs; also interested in sharing the information with my peers and policy-makers.

Conclusions

As this discussion has shown, it is clear that building capacity for the mainstreaming of MEAs includes a diverse set of processes, stakeholders, and national and regional contexts that cover a number of sectors, data availability and institutional challenges. It has also shown that the practical success of mainstreaming will depend on the extent to which policy-makers are able to cross boundaries between their own agency priorities (and thus connect with their counterparts in other agencies and departments), and build linkages with researchers and stakeholders to co-produce knowledge that could guide policy—but is also scientifically sound and has buy-in on the ground. Based on the three applications of the approach to capacity-building to address mainstreaming, the following three main priority areas may be put forward: review of national and regional plans for their relevance to MEAs; strategic approaches to data collection and assessments development (both regionally and nationally) to support policy development; and the importance of cross-sectoral collaborations (especially between policy-makers) to create a basis for bottom-up support for mainstreaming.

Participant feedback on specific entry points for MEAs suggested it is critical to ensure mainstreaming into strategic documents such as a country's vision, poverty reduction, and economic development plans. Such integration provides a direct signal to the bureaucrats on the necessity of mainstreaming. However, when identifying these linkages, it is important to critically review the national and regional plans and strategies to identify if the goals of the MEAs are in line with the issues that are being mainstreamed, and if they don't, then key changes in the high-level documents need to be articulated and addressed during the review of these documents. Providing examples of national plans and suggestions for strategies that are compatible with MEAs could help countries develop their planning efforts.

The mainstreaming process must be rooted in research outputs including data, targets and thresholds that could guide the policy and monitoring processes. Especially in countries with limited capacity, working with regional data, sharing data with neighbouring countries and accessing data from different sectors could increase their capacities to mainstream issues—including MEAs. For future work, this would require greater effort when designing regional and national assessments to have policy relevance across diverse sectors as one of their key objectives while at the same time ensuring high scientific standards when presenting data on MEAs so the published information can be used (and will be accepted) by different policy-makers and other stakeholders.

For the participants, it was clearly important to share their experiences and points of view across different sectors within their countries and across the region. The evaluation forms from the three applications indicated that policy-makers highly valued opportunities to work together and developed a shared understanding about the key roles of MEAs in the countries' development priorities and at the level of actual actions. Such close collaborations provide opportunities to uncover the impacts of sectoral policies on MEA targets and assist in working with indicators monitoring these sectors to support MEAs. Improvements in the capacities of policy-makers create a strong bottom-up basis within agencies and ministries that could provide an additional push for mainstreaming and coordination with top-down guidance from the regional and national levels. For future efforts on capacity-building focused on mainstreaming, this means that they should encourage diverse cross-sectoral participations and also focus on key ministries and agencies such as finance, trade and others.

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Training Module

Achieving National and Sectoral Development Priorities

The use of integrated environmental assessment tools for improved MEA implementation

This module is designed to convey innovative integrated environmental assessment (IEA) tools that can generate win-win scenarios for achieving national development priorities in the Caribbean through more effective MEA implementation. Some of the same tools have already been used in and can build on the experience of those countries of the Caribbean that already have an IEA process in place and have published integrated environmental outlook reports.