



JANUARY 29, 2014  
FINAL  
BIENNIUM  
REPORT

# Programme Cooperation Agreement 2012 – 2013

Prepared for the Norwegian Ministry of Foreign Affairs



*A Centre Collaborating with UNEP*



JANUARY 29, 2014  
F I N A L  
B I E N N I U M  
R E P O R T

# Programme Cooperation Agreement 2012 – 2013

Prepared for the Norwegian Ministry of Foreign Affairs



# Contents

<b>1</b>	<b>Foreword</b>	<b>7</b>
<b>2</b>	<b>Executive summary</b>	<b>8</b>
<b>3</b>	<b>Introduction</b>	<b>13</b>
<b>4</b>	<b>Scope of context</b>	<b>13</b>
<b>5</b>	<b>Attribution of results</b>	<b>14</b>
<b>6</b>	<b>Methodology and structure</b>	<b>14</b>
<b>7</b>	<b>Marine environment</b>	<b>15</b>
	7.1 Shelf programme	15
	7.2 Management of the marine environment	20
	7.3 Green economy and natural resources	28
	7.4 Natural resources	31
<b>8</b>	<b>Polar and cryosphere</b>	<b>33</b>
	8.1 Nomadic herders and land use change	33
	8.2 Linking local and scientific knowledge for adaptation to Climate Change in SIDS	36
<b>9</b>	<b>Capacity building and assessment</b>	<b>39</b>
	9.1 Africa	39
	9.2 Eurasia	45
	9.3 Green economy	50



<b>10</b>	<b>Communications and outreach</b>	<b>52</b>
10.1	Enhance the impact of UNEP work through communications and outreach products; organise outreach events; facilitate lectures; provide technical and publication services	52
<b>11</b>	<b>Financial report</b>	<b>59</b>
11.1	Summary	59
11.2	Programme funding 2012-13	59
11.2.1	Actual funding versus budget	62
11.2.2	Expenditures	62
11.2.3	Expenditures versus funding	63
11.3	Budget 2014	63
11.3.1	Projected funding	64
11.3.2	Project expenditures 2014	65
<b>12</b>	<b>Deviations from, and adjustments to the annual work plan</b>	<b>66</b>
<b>13</b>	<b>Assessment of effectiveness</b>	<b>68</b>
<b>14</b>	<b>Summary of lessons learned</b>	<b>69</b>
	<b>Acronyms</b>	<b>70</b>
	Annex 1 – Letter UNEP’s Executive Director to Chair Board GRID-Arendal	75
	Annex 2 – GA strategy directions 2014 – 2017	76
	Annex 3 – Audited financial statements	80
	Annex 4 – Flyer ‘Environmental strategic outlook’	84



# 1 Foreword

The work plan set out for GRID-Arendal in the 2012-2013 Programme Cooperation Agreement with the Norwegian Ministry of Foreign Affairs was wide in its scope and potentially important in its impact. This report on programme delivery over the biennium demonstrates that GRID-Arendal has met its institutional commitments and demonstrates evidence of the multiple benefits being reaped from this programme.

UNEP makes use of the capacities of many institutions around the world, such as GRID-Arendal, to expand the depth and breadth of its support to member countries. Specifically, GRID-Arendal helps position UNEP as a strong science-based organization able to respond in a timely and relevant way to the needs of governments and international policy processes.

This report shows how GRID-Arendal is continuing to develop its reputation as a facilitator of objective dialogue on the local, national and regional levels, expanding and strengthening its partnerships within Norway and around the world. The international, multi-disciplinary staff is well equipped to support networking amongst public institutions, NGOs, indigenous communities, the private sector, and civil society across cultures, geographic and demographic borders, and disciplines.

The core business and centre of the partnership of GRID-Arendal's support to UNEP remains in publishing and use of its dedicated databases, web-based tools and knowledge portals. The three Rapid Response Assessments published in 2012-13 Illegal Logging, Stolen Apes and Elephants in the Dust exemplify how timely, targeted and compelling reports produced by GRID-Arendal enabled UNEP to raise public and political awareness of critical issues.

GRID-Arendal continues to provide leadership with respect to Polar issues, giving member states extensive access to information and expertise needed to protect the Polar region. Building on over two decades of experience, activities have now expanded into the cryosphere, with exciting projects in the Himalayas and Mongolia.

The Shelf Programme, a cornerstone of GRID-Arendal's Marine programme, together with the work on Blue Carbon, has seen an increasing emphasis on marine ecosystem services and their sustainable management. Technical support and capacity building has also been channelled through several UNEP Regional Seas Programmes and member states to enable them to participate in the first World Ocean Assessment.

Capacity building in Africa has successfully focused on the preparation of environmental assessments and the production of atlases of environmental change. In Eastern Europe, the Caucasus and Central Asia, the focus was on making reliable, accurate and up-to-date information easily accessible and 'digestible' to a broad range of stakeholders in the region and beyond. The effectiveness of this approach is demonstrated by projects on toxic chemicals, closely linked with the work of UNEP's Chemicals Branch and impacting on national policy decisions towards safeguarding vulnerable groups in the future.

The alignment of GRID-Arendal's biennial work programme with that of UNEP, plus GRID-Arendal's responsiveness, has proved to be a successful formula with significant benefits for member states and the global community. I extend my gratitude to the Norwegian Government for the invaluable support that facilitates our long-standing partnership and look forward to continuing our close collaboration as we move into the new biennium.



A handwritten signature in black ink that reads "Achim Steiner". The signature is fluid and cursive, written in a professional style.

**Achim Steiner**  
UN Under-Secretary-General  
UNEP Executive Director

## 2 Executive summary

### “GRID-Arendal: one of the most effective collaboration centres in the UNEP family”

In November 2012, the Executive Director of UNEP, Achim Steiner, wrote in a letter to our Chairman, Olav Orheim, that “GRID-Arendal has emerged as one of the most effective collaboration centres in the UNEP family, helping to position UNEP as a strong, science-based organisation, able to respond expeditiously to the needs of governments and international policy processes.”<sup>1</sup> The letter was also a topic when the Standing Committee on Foreign Affairs and Defence (‘Utenriks- og forsvarskomiteen’) of the Norwegian Parliament (Stortinget) invited GRID-Arendal for a public hearing on “Norge og FN: Felles framtid, felles løsninger” (“Norway and the UN: common future, common solutions”). In the parliamentary committee’s official response (‘instilling’) to the Government, GRID-Arendal and UNEP are specifically mentioned in the context that it is important for Norway to develop the relationships between Norwegian-based organisations and UN institutions and organisations in order to make UN organisations more effective.<sup>2</sup>

Signs that GRID-Arendal is seen as an effective and efficient partner of UNEP are the increasing requests and contracts from UNEP for “Rapid Response Assessments” (RRAs) on urgent global issues. On very short notice and within tight time frames, GRID-Arendal has produced in 2012-13 the following RRAs: *Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the World’s Tropical Forests*; *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*; *Elephants in the Dust: The African Elephant Poaching Crisis*; and *Food Lost, Food Waste: Food Security by Restoring Ecosystems and Reducing Food Loss*.

### Adaptation to Climate Change

GRID-Arendal communicated information in formats suitable for policy-making, regarding the threats and opportunities posed by climate change, including how to adapt to and mitigate climate change impacts. Focal areas included new emission reduction pathways, adaptation to disasters, reversing loss of natural climate buffers in oceans (e.g. mangroves) and on land (e.g. forests), issues of food security, gender and planning. Projects involved a range of activities including engaging with stakeholders, training workshops, advocating for targeted policy action, mapping and reporting at national and international government and UN levels.

For example, our pioneering RRA on “Blue Carbon” (the role of healthy oceans in binding carbon) contributed to the global recognition of this issue. Awareness of the Blue Carbon concept was raised by GRID-Arendal’s RRA publication in 2009 and it is now receiving growing interest as evidenced by:

- a synthesis of publications advancing Blue Carbon policy, economics and science published by The World Bank, Duke University, UNEP-WCMC, NOAA, Climate Focus, Resources for the Future and others;
- many peer-reviewed journal articles advancing Blue Carbon science;
- international working groups set up to address Blue Carbon science and policy issues; and,
- methodologies developed for assessing Blue Carbon stocks; multiple Blue Carbon demonstration projects around the world are now attempting to employ these methodologies (including the United Arab Emirates, Indonesia, Vietnam, Kenya, Senegal, and Bangladesh).

Many countries and organisations are now striving to protect mangroves, sea grasses and saltmarshes and trying to bring Blue Carbon into the carbon trade systems. Our work for Abu Dhabi is focusing on Blue Carbon in the carbon trade context, and results from the ‘Abu Dhabi Blue Carbon Demonstration Project’ present excellent policy targets and examples of lessons learnt for the application of Blue Carbon through other international projects and efforts, and have resulted in a number of national follow-up decisions and projects in the Emirates.

Our involvement in Blue Carbon projects also laid the basis for UNEP’s decision to provide GRID-Arendal with the lead to develop a Global Environment Facility (GEF) project on ‘Blue Forests’. The project proposal, which focuses on the global protection of mangroves, has now (December 2013) been prepared and submitted to GEF.

The work on Blue Carbon, mangroves and ecosystem-based adaptation, is also relevant to Small Island Developing States (SIDS), which are also supported by GRID-Arendal’s ‘Many Strong Voices’ (MSV) project. MSV, which links Arctic and SIDS to assess the impacts of climate change on remote communities, was selected by readers of The Guardian newspaper in the UK as the sixth most influential awareness raising campaign in the world.<sup>3</sup>

1. See letter in Annex 1

2. <http://www.stortinget.no/Saker-og-publikasjoner/Saker/Sak/?p=54599>

3. <http://www.theguardian.com/global-development-professionals-network/2013/nov/15/top-10-climate-change-campaigns>



Several climate-related publications have been produced. The *Green Carbon, Black Trade RRA on Illegal Logging* focused on the tactics being deployed in illegal logging and options for reducing both deforestation and carbon emissions. *Clean Energy Postcards* are concise and easily accessible sources of information for the general public, journalists, NGOs and policy-makers worldwide, enabling them to easily grasp and effectively communicate clean energy concepts. The postcards were produced for the UNFCCC COP18 in Doha in December 2012. The *Short-lived Climate Pollutants (SLCPs) Vital Graphics* are produced to support UNEP's activities in the Climate Clean Air Coalition (CCAC).

GRID-Arendal continues to be an active partner in the Himalayan Climate Adaptation Programme (HICAP), which aims to enhance mountain communities' resilience to change, particularly climate change, by improving the understanding of vulnerabilities and opportunities for adaptation.

### **Marine and coastal resources**

The continental shelves contain among the greatest natural resources available for developing coastal states and mapping their boundaries is critical for future planning. For coastal nations, the continental shelves contain valuable minerals, hydrocarbons, and living resources critical to tourism, fisheries, food security, coastal livelihoods, health and culture.

The Shelf Programme, one of the "flagship" programmes of GRID-Arendal, is seen (as expressed by high officials of governments) as one of the most important Norwegian programmes supporting developing countries. Particular focus of GRID-Arendal's programme was on West African countries. In 2012, GRID-Arendal as part of a technical partnership, completed a major sea-floor mapping programme providing the most comprehensive seafloor geophysical data set ever collected in the region. Technicians and specialists from seven West African countries (Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone) participated in regular capacity-building workshops held at GRID-Arendal during 2012-13, where interpretation and analysis of the marine geophysical data collected in the West African region was carried out. These workshops have not only built technical capacity for the participants, but have also built bridges and professional networks among African experts, fostering regional collaboration, sharing of information and dialogue.

In the Pacific region, the Maritime Boundaries partnership contributed to regional stability and improved ocean governance opportunities. The partnership has played a key role in making this happen alongside that almost 30% of the shared maritime boundaries in the region have been resolved and appropriate legislation enacted.

In support of the United Nations World Ocean Assessment (WOA), GRID-Arendal has created a dedicated website and helped to organize capacity-building workshops. The new website provides information for the general public as well as an editorial system to assist members of the WOA Group of Experts to compile information and draft their report by the end of 2014. The workshops have enabled developing countries in South East Asia and West Africa to conduct their own State of the Marine Environment reporting and to thus be able to participate in and contribute to the WOA.

Major outputs have been completed in regard to the Pacific Deep Sea Minerals Assessment. The Secretariat of the Pacific Community-European Union Deep Sea Minerals in the Pacific Islands Region: A Legal and Fiscal Framework for Sustainable Resource Management Project is being implemented in 15 Pacific countries. The Pacific Deep Sea Minerals Assessment, which is part of this project, has been completed by GRID-Arendal and was launched in December 2013. The two-volume report provides the first integrated examination of the key aspects of mineral extraction for policy-makers, including the geological, biological, technical, social, economic, and fiscal components. These volumes have, for the first time, brought together international experts with a broad range of skills and backgrounds relating to deep sea minerals. Consolidating this information to support decision-making, and the regional development of a legislative framework to underpin resource development, both within and beyond national jurisdictions, places the Pacific Island states at the forefront of responsible management of their non-renewable resources.

To illustrate that the ecological health and economic productivity of marine and coastal ecosystems, which are currently in decline around the globe, can be boosted by shifting to a more sustainable economic paradigm, GRID-Arendal published, in fulfillment of a UNEP request, the *Green Economy in a Blue World* report in 2012. The report describes how generating renewable energy and promoting eco-tourism, sustainable fisheries and transport are more compatible with sustainable and inclusive economies.

Building on experience with the Shelf Programme for developing coastal countries, GRID-Arendal has engaged with several Regional Seas Conventions to support capacity development for sustainable management of the marine environment, including the Abidjan Convention (coast of West Africa), the Nairobi Convention (coast of East Africa), the Barcelona Convention (Mediterranean Sea) and the Tehran Convention (Caspian Sea). GRID-Arendal has entered into special cooperation with the Abidjan Convention, and participated in their meetings and activities. Coastal populations in the 22 member states (the Atlantic coast of Africa, from Mauritania to South Africa) are to a large extent dependent on the marine environment for food and socio-economic development. As unsustainable

management practices are threatening the marine environment and coordination between marine planning processes is lacking, GRID-Arendal plays an important role in introducing “Ecosystem-based Management” (EbM) to the whole region.

### Transboundary waters

GRID-Arendal is involved in several regions, particularly in Africa and Eurasia, engaging with countries which have complicated relationships with each other but share common waters, such as rivers, lakes and/or seas. For example, transboundary rivers form crucial lifelines for the supply of energy, transport and irrigation for agriculture in many countries. Several transboundary agreements over water resources already exist and provide excellent opportunities for international peaceful collaboration and improved natural resource management.

In 2013, GRID-Arendal published the *Zambezi River Basin Atlas of our Changing Environment*, in cooperation with the Southern African Research and Documentation Centre’s environment institute, the India Musokotwane Environment Resource Centre for Southern Africa. Eight countries in Southern Africa (Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe) share this globally important river basin. Credible scientific information provided in the Zambezi Atlas will inform the institutional and legislative processes that will shape developments in the Zambezi River basin over the next decade.

The publication of the Atlas has renewed interest in basin management issues among the eight riparian countries. After the launch in Angola, several governments expressed interest in the follow-up of the findings of the atlas. GRID-Arendal also worked with the Zambia Environmental Management Agency to produce the Zambia Atlas of our Changing Environment.

The Zambezi Watercourse Commission (ZAMCOM) and other institutions have expressed great satisfaction with the Zambezi Atlas publication. And interest to use the atlas methodology and visualization has been received from potential partners such as Germany’s Gesellschaft für Internationale Zusammenarbeit (GIZ) and Kreditanstalt für Wiederaufbau (KfW), which have activities in the Kavango-Zambezi trans-frontier conservation area. This interest indicates that the atlas work has a major potential to create real impact on the ground as demonstrated previously with the *Uganda Atlas of Our Changing Environment*<sup>4</sup> that generated immediate actions and policy decisions (ref. the final biennium report for 2010-11).

An Eastern-European example of transboundary water cooperation is the Lake Drukšiai/Drisviaty Basin Man-

agement Programme. The transboundary water basin of Drukšiai/Drisviaty Lake is shared by three countries: Lithuania, Belarus and Latvia. The lake is part of a national park and is included in protected nature reserves and NATURA 2000 network sites, which are fully or partly protected by national laws. At the same time the basin is an environmental and security hot spot of high concern, especially in the region of Ignalina Nuclear Power Plant (NPP) with its nuclear waste storage and repository facilities and the newly proposed Visaginas NPP. In addition, the national boundaries represent barriers for implementation of a basin-wide approach and integration of various water management aspects. In 2012, an official Drukšiai/Drisviaty Lake Basin Management Programme (DLB MP) website and mapping application was launched. The tool has been shared with all three basin countries and is intended to stimulate information exchange between the stakeholders (governments, academia, and NGOs) of the basin.

Another example is the Dniester River Basin, shared by Moldova and Ukraine, which is the fifth largest transboundary basin in the Black Sea region. GRID-Arendal has been managing the Information Working Group of Dniester projects, and assisting the two governments in the development and negotiations of the Dniester Treaty, signed on 29 November 2012. The achievements of the Dniester projects include improved cooperation and coordination between health authorities in the region responsible for the quality of drinking water. Transboundary cooperation has been established to conserve biodiversity, including the management of fish stocks, improved sharing and management of information on the basin, and increased awareness among stakeholders and the public about the value of the water resources in the Dniester Basin and the threats they face. An on-going component aims to reduce vulnerability to floods. GRID-Arendal’s substantive contribution has included the development of the ‘Geoportal of the Dniester River Basin’ and production of the *Environmental Atlas* launched in November 2012.

Five countries’ cooperation is the focus of GRID-Arendal’s support to the Tehran Convention, the countries sharing the Caspian Sea: Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan. For the last three years, GRID-Arendal has supported the Tehran Convention through providing staff to the Interim Secretariat, supporting regional assessments and conducting the *Caspian Sea State of the Environment* (SoE) report adopted by the Third Conference of the Parties (COP3). The Caspian SoE report was finalized and circulated in 2012. During this biennium, the Interim Secretariat assisted with the preparations for COP4 held in Moscow in 2012 and with the “Protocol on the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities”, which was finalized and adopted at COP4. The web-based Caspian Environmental Information Center (CEIC), designed by GRID-Arendal, serves as a communication tool for the Secretariat of the Tehran Con-

4. <http://www.grida.no/publications/the-uganda-atlas/>

vention and aims to provide reliable and high-quality data and information for regular SoE reporting on the Caspian Sea.

Other transboundary (water) work featured in this report, is the continental shelf work in West-Africa and in the Himalayas (funded outside the framework agreement).

### **Environmental Crime Programme**

GRID-Arendal's Environmental Crime Programme started in 2012. Transnational organized environmental crime robs mainly developing countries of an estimated USD 90-210 billion every year, or 1-2 times global Official Development Assistance (ODA). It involves five key areas: i) Illegal logging and deforestation; ii) Illegal fisheries; iii) Illegal mining and trade in minerals including conflict diamonds; iv) Illegal dumping and trade in hazardous and toxic waste; and v) Illegal trade and poaching of wildlife and plants. It threatens state security by increasing corruption, spreading into other crimes such as arms and drug smuggling and human trafficking. It therefore has devastating effects on developing economies.

In 2013, GRID-Arendal used MFA funds to support the development of its environmental crime programme. Additional co-funding of over NOK 60 million was secured for the period 2013-2015 from multiple partners.

GRID-Arendal, together with the UN Office for Drugs and Crime (UNODC), was granted NOK 15 million by NORAD for the three-year project 'Organised Forest Crime (ORGFORC) – Combatting Transnational Organized Forest Crime and Corruption'. The purpose of the project is to reduce corruption and organized crime associated with illegal logging, thereby paving the way for REDD funds and investments to achieve significant sustainable development impacts on poverty reduction and better governance. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is also a collaborating partner. In addition, GRID-Arendal together with INTERPOL, has developed a 'Law Enforcement Assistance to Forests (LEAF)' project to support government agencies and INTERPOL in training frontline police officers, investigators and National Central Bureaus, as well as supplying information on illegal logging to improve international enforcement operations. GRID-Arendal assists with information gathering and research to help inform INTERPOL and collaborating countries.

ORGFORC and LEAF are evolving quickly, and have already provided a range of results both on the ground and in improved international collaboration to combat illegal logging, including through meetings and courses worldwide. GRID-Arendal has been central to the overall development and initiation of both projects. Building on its close cooperation and involvement in these two projects, GRID-Arendal was also closely involved in initiating a col-

laborative effort in East Africa with UNODC, INTERPOL and UN REDD. A joint proposal for USD 5.7 million has been developed and submitted to the Norwegian Government.

In 2012-2013, three UNEP Rapid Response Assessments (RRAs) on environmental crime were launched, all co-funded by UNEP and donor countries. All received extensive global media coverage and are repeatedly quoted worldwide, including in the UN General Assembly.

The UNEP RRA *Green Carbon, Black Trade* revealed that illegal logging has a global value of USD 30-100 billion and is responsible for 50-90% of the deforestation in key tropical countries. In addition, illegal logging represents 8-14% of global CO<sub>2</sub> emissions. Major countries, including Brazil, referenced the report in media when announcing decisions to enhance the effort against organized crime and illegal logging.

Two more RRAs were produced during the first quarter of 2013. The UNEP report *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*, analyzes the scale and scope of the illegal trade in apes and highlights the growing links to sophisticated transboundary crime networks, which law enforcement networks are struggling to contain. Another report, prepared by GRID-Arendal for UNEP, CITES, IUCN and TRAFFIC, *Elephants in the Dust: The African Elephant Poaching Crisis*, provides an overview of the current state of the African elephant and recommendations for action to ensure its protection. Both reports were launched in early March 2013, at side events at the 16th Meeting of the Conference of the Parties (COP16) of CITES held in Bangkok, Thailand, and were intended to influence decisions at the COP. An agreement was reached on concrete actions to be taken by a group of eight countries identified as the worst offenders in the illegal ivory trade (the supply states, Kenya, Tanzania and Uganda; the consumer states, China and Thailand; and the transit countries Malaysia, Viet Nam and the Philippines). According to this agreement, the countries are committed to quickly develop national ivory action plans and to take urgent measures to implement and report on these plans. Whilst the *Elephants in the Dust* report cannot claim attribution for this new policy, it is likely to have been an important resource for raising awareness as it was launched prior to the COP discussions on this issue.

### **Longer lasting Engagements of GRID-Arendal**

As recommended by the Ministry of Foreign Affairs, GRID-Arendal is striving to focus its traditionally diverse work increasingly on some broader and longer lasting programmes. As noted above, GRID-Arendal is working with Regional Seas Conventions to build regional capacity in Africa for implementing ecosystem-based management and state of marine environment reporting. The rapidly increasing work on "Blue Carbon" includes a 4-year com-

mitment to the GEF Blue Forests programme. GRID-Arendal is also positioning itself, through the appointment of highly qualified experts, to engage with UNEP's TEEB (The Economics of Ecosystems and Biodiversity) programme.

Within the context of the Nomadic Herders Project, the Polar and Cryosphere programme implemented the preparatory phase of a large-scale GEF project, which should lead to concrete impacts on the biodiversity of Mongolian and Russian pasturelands, contributing to fulfilment of the Convention on Biological Diversity (CBD).

Our Cryosphere work, anchored in the Himalayan Climate Change Adaptation Programme (HICAP), has achieved significant synergies with the Center for International Climate Research – Oslo (CICERO) and the International Centre for Integrated Mountain Development (ICIMOD). The partnership with ICIMOD, a regional intergovernmental learning and knowledge-sharing centre that serves the whole region of the Hindu-Kush Himalayas, has proved especially rewarding.

Our long-standing work within the African Environment Information Network (AfricaEIN) has been revived in order to tap into other information networks, including the Global Network of Networks and UNEPLive. The AfricaEIN is a network of information and data centres, institutions and experts across Africa, which aims to avail information and data for environmental assessments such as the Africa Environment Outlook. A funding proposal has been submitted to the GEF for a medium-sized project. Plans for the future AfricaEIN are set out in a booklet entitled *Strengthening the Africa Environment Information Network: A Framework to Increase Access to Environmental Information and to Support Africa's Development Planning Processes*.

In the past biennium, GRID-Arendal started the Chemical Safety Programme. In its framework it has conducted 3 projects, including the project on 'Toxic Metals in Children's Products' in cooperation with the International POPs Elimination Network (IPEN). 569 different children's products, mainly toys, available on the market in 2012 in 6 countries of the EECCA region (Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, and Ukraine) have been analyzed. Measurements focused on 6 heavy metals - lead, mercury, arsenic, antimony, cadmium and chromium. Approximately 27% of the products were found to

contain at least one toxic metal above maximum permissible level and 13% contained two or more toxic metals, increasing their potential for harm. A media campaign, designed to attract public attention and initiate discussions with concerned audiences has generated more than 300 publications in European media and contributed to policy changes.

The project 'Improvement of the environmental policy of Tajikistan in order to reduce mercury pollution and improve human health' in partnership with IPEN and local NGO The Foundation for the Support of Civil Initiatives, undertook a laboratory evaluation of the sources of mercury emissions in the mining industry in the Sogd province of Tajikistan, provided technical assistance to 5 hospitals and capacity building for 130 staff in the cities of Dushanbe and Vahdat. It also set up collection points for mercury waste from households, organized the exchange of conventional mercury lamps for energy saving ones, and instructed 250 people on the collection of the hazardous waste. The project has received a considerable attention of national media and praise from the Chairman of the Environmental Commission of the Parliament of Tajikistan Mr. Makhmadsharaf Khakdodov. He acknowledged its contribution to forming the position of Tajikistan towards the Minamata Convention.

On the request of the Chemicals Branch of the UNEP Division of Technology, Industry and Economics, a medium-size GEF project proposal titled: 'Development of mercury inventory and national mercury management approach in Belarus, Ukraine and Kazakhstan.' has been prepared with the national beneficiaries, endorsed by governments of project countries and submitted by UNEP to the GEF Secretariat. Partners have conducted a feasibility study of the sources of mercury contamination in the three countries.

Another Project Identification Form (PIF) has been developed by the Interim Secretariat of the Tehran Convention with the participation of GRID-Arendal for a GEF project titled: 'Advancement of pollution control and reduction in the Caspian Sea through enhanced regional governance and knowledge of the Caspian Sea'. The project will focus on three catalytic areas: regional governance; environmental monitoring; and capacity building and strengthening of the scientific community in understanding the Caspian ecosystem.



# 3 Introduction

This is the Final Report on the Programme Cooperation Agreement (PCA) between the Norwegian Ministry of Foreign Affairs (MFA) and GRID-Arendal for the period 2012-2013 (the 'biennium'). The Final Report provides an overview of the 2012-2013 *programme delivery and highlights the results* that have been achieved during the biennium. A detailed financial report is also included.

In line with the principles and terminology laid out in NORAD's guide on Results Based Management,<sup>5</sup> the

---

5. Results Management in Norwegian Development Cooperation: A practical guide. NORAD on behalf of Norwegian Ministry of Foreign Affairs (December 2008).

effects of GRID-Arendal's work under the PCA fall into one of three categories along the results chain: **outputs** are the direct products and services generated by programme activities; **outcomes** are the effects that these products and services have on the target group; and **impacts** are the long-term changes, or improvements that occur in society or in the state of the environment.

# 4 Scope and context

During 2013, GRID-Arendal has further developed its strategy<sup>6</sup> for the next 4 years. *Our mission is to support environmentally sustainable development through UNEP and other partners by communicating information that strengthens environmental management capacity and motivates decision-makers to act. And our vision is a society that understands, values and protects the environment on which it depends.*

GRID-Arendal's overall strategic directions are, amongst others, to:

- Focus on building a portfolio of larger, long-term projects.
- Strengthen our support to environmental conventions and cross-border cooperation.
- Support the world's transition to a 'green economy.
- Increase cooperation with other UN organisations in fulfilling the goals of the Rio+20 process.

In order to focus on larger long-term projects during the biennium 2012/2013, GRID-Arendal went through a process with UNEP to get involved in larger projects financed significantly by the World Bank through its Global Environment Facility (GEF). This entailed both the opportunity to use the funds under the agreement with MFA as "seed" funds for the delivery of a larger programme, but also for complicated processes and risks we had to take into account (see chapter on lessons learnt).

---

6. Annex 2: GRID-Arendal strategy directions 2014 - 2017

Increasingly, GRID-Arendal's work involves environmental conventions and thereby contributes to cross-boundary co-operation. Good examples are the Tehran Convention for the protection of the Caspian sea and the Abidjan Convention, UNEP's Regional Seas agreement of West-African states.

Increasingly GRID-Arendal supports projects related to "green economy", one of the key agendas of UNEP, and uses its communication and facilitation competences in related fields such as "The Economics of Ecosystems and Biodiversity" (TEEB).

Rio+20 and the outcome document "*The Future we Want*" became an important framework guiding GRID-Arendal's strategic planning during the last biennium. Strengthening the environmental dimension of sustainable development and thereby UNEP and the co-operation among UN-organisations on environmental fields has always been a goal for the work of GRID-Arendal.

While the Final Report focuses on the work programme specified under the MFA PCA, the overview of programme delivery also summarizes the work undertaken by GRID-Arendal beyond the Agreement (such as Polar-related activities). This is done to show the close integration within and across the programme areas and the co-benefits that derive from sharing knowledge, skills and partners between projects.

## 5 Attribution of results

While clear causal links – from inputs and activities through outputs to outcomes and impacts – form the basis of project design, the *attribution* of a particular result tends to become more tenuous along the results chain.

GRID-Arendal's outputs, such as reports and websites, are relatively easy to identify and attribute. Direct linkages to outcomes and impacts are generally harder to establish. One reason for this is the time lag that often exists between the delivery of products and services and the emergence of related outcomes and impacts - especially when the latter depend on decision-making processes. Several of GRID-Arendal's projects are subject to these delays along the results chain, including the Blue Carbon initiative, the Shelf Programme and the Nomadic

Herders project. Indeed, some of the results that can now be attributed to GRID-Arendal, actually relate to work done before the 2012-2013 biennium, and some of the results from this biennium will not become apparent until some time in the future. In addition, decision-makers rarely make decisions based on a single source of information. Many of GRID-Arendal's reports are likely to have influenced decisions, but it is rarely possible to prove this connection. The Rapid Response Assessments on transnational wildlife crimes, available to decision-makers at the CITES COPs, are a case in point. Despite these limitations in attribution, considerable evidence is available and presented in this report to trace direct and indirect linkages from the work of GRID-Arendal to positive outcomes and/or impacts.

## 6 Methodology and structure

To make it easy to identify and track progress on specific programme components, the programme delivery is reported in chapters 7 to 10 following the same order and subdivision of programme areas as they are listed in the MFA PCA: Marine Environment, Polar & Cryosphere, Capacity Building & Assessment, and Communication & Outreach. Within each of these, and in order to illuminate the connection between planned activities and their associated achievements, the narrative on major projects or programmes covers both implementation and results. Presentation of results is easily identified in the narrative by blue text boxes.

While the Final Report reflects the functional division of GRID-Arendal, it should be noted that the 'programme-wide support' provided by Communications & Outreach (including cartography, publication layout, graphics generation, digital integration, and web development) are intrinsically related to the operations of the other three units. Therefore, the contributions to GRID-Arendal's strategic objectives made by the Communications & Outreach unit are to a significant extent reflected in the

activities of the other units and, consequently, in the narrative of this report.

Chapter 11 presents comprehensive financial information for the 2012-2013 biennium. The report concludes by summarizing some of the key considerations for programme management including deviations from, and adjustments to the programme, problems and risks encountered, Work Programme efficiency and effectiveness and, last but not least, insight into lessons learned. The gender dimension is addressed in the report under individual interventions where relevant, rather than as a 'stand-alone' segment.

Annex 1 presents a letter from UNEP's Executive Director Achim Steiner to Olav Orheim, Chair of the Board GRID-Arendal. GRID-Arendal's strategic directions 2014-2017 with a global map of GRID-Arendal's geographic focus are contained in Annex 2. Annex 3 presents the letters from the auditors regarding GRID-Arendal's finances for 2012 and 2013. Annex 4 outlines GRID-Arendal's strategic areas of focus for 2014-2017.

# 7 Marine environment

## 7.1 SHELF PROGRAMME

### ◆ Norwegian Continental Shelf Initiative

Now in its 8<sup>th</sup> year, the Shelf Programme continued to be a main component of GRID-Arendal's Marine Programme. Special focus has been placed on supporting West African states during this biennium.

#### The Shelf Programme in West Africa

The project to assist coastal states in West Africa prepare submissions for continental shelf beyond 200 nautical miles, has gone from strength to strength. A regional data acquisition programme, and regional capacity building strategy, were both completed at the end of 2012.<sup>7</sup> A team of experts, with new and increased understanding of the offshore marine environment has been developed. These scientists from Mauritania, Cape Verde, Senegal The Gambia, Guinea, Guinea-Bissau and Sierra Leone have worked together to develop the arguments and compile the data to support claims for large areas of the sea floor. Together we have completed foundation documents and analyses<sup>8</sup> and all seven countries are now in an advanced stage of submission preparation.

- 
7. In May 2012 GRID-Arendal signed a contract with the Norwegian Petroleum Directorate (NPD) for NOK 1 Mill to assist with the acquisition of geophysical data offshore of the West Africa States of Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone. The survey company Gardline was responsible for project oversight including the continuous valuation of data quality and applicability.
8. On 1 July 2013, in accordance with the Norwegian agreement, the Shelf programme delivered, to the West African national focal points, the three key technical documents that form the major part of the final submission documents. These included the geological background, the base of slope document and the revised foot of slope document.



Participants and instructors at the 2<sup>nd</sup> Technical Training Workshop.  
Photo: Rannveig Nilsen

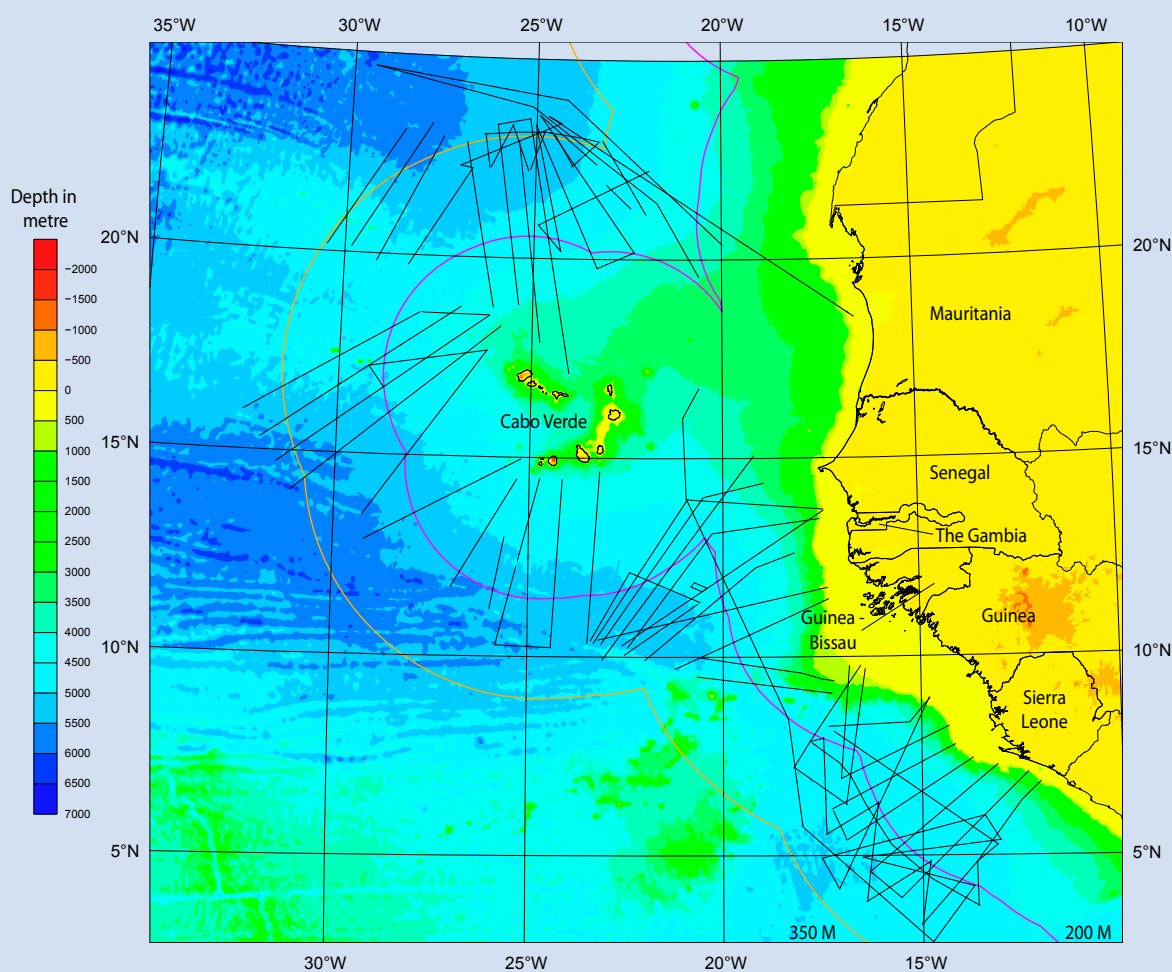
Participating technical experts have received hands-on experience in marine geophysical data integration, interpretation and analysis and drafting of the technical sections of the submission document and accompanying annexes. Apart from the satisfaction felt by the team in completing these large and complex activities for the benefit of their countries, it was acknowledged that very exciting and useful new information now exists on the geological history of the region and the physical processes operating offshore. This information can be used to inform marine resource exploration and management, but potentially has even more added-value. Many of the team have expressed interest in working together to develop this supplementary information into a tertiary-level textbook to enhance the teaching of marine geoscience in West Africa.



Participants and instructors at the 2<sup>nd</sup> Technical Training Workshop under the West Africa Training and Capacity Building Programme for the Establishment of the Outer Limits of the Continental Shelf Beyond 200 Nautical Miles.  
Photo: Lars Kullerud, GRID-Arendal.

### SIGNIFICANT OUTCOME: Shelf Programme in West Africa

In 2012, GRID-Arendal completed a major seafloor mapping programme, providing the most comprehensive seafloor geophysical data set ever collected in the region. Technicians and specialists from seven West African countries (Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone) participated in regular capacity-building workshops held at GRID-Arendal during 13-2012, where interpretation and analysis of the marine geophysical data collected in the west African region was carried out. These workshops have not only built technical capacity for the participants, but have also built bridges and professional networks among African experts, fostering regional collaboration, sharing of information and dialogue.



West Africa Countries and survey lines (Kristina Thygesen, GRID-Arendal)



## **SIGNIFICANT OUTCOMES reported from West African States**

Extract from a message received from Dr Jerreh Barrow, Acting Director, Geological Department, Office of the President, The Gambia

*“The West Africa Shelf Project has had many positive benefits... for The Gambia. In particular we have benefited from the data acquisition, the training and capacity building program and the experience sharing during the workshops. Through the West African Continental Shelf Program supported by the Kingdom of Norway, The Gambia is on track to meet its obligations under Article 76 of UNCLOS and has established cooperation and understanding with neighboring states with respect to matters of common regional interest.”*

18 November 2013

---

Extract from a letter received from Dr Jinnah S Momoh, Chairman of Technical Experts, on behalf of the Sierra Leone Technical Experts and the Government of Sierra Leone

*“The West African Shelf Project with funding provided by the Norwegian Government is highly valued and appreciated by the Government of Sierra Leone. A lot of progress has been made in all the stages...along with the other six countries. Sierra Leonean experts were involved in the actual collection of the data which gave them insight into the whole process. Training workshops held in GRID-Arendal helped to build their capacity to properly analyze the data...given the continued support and guidance from GRID-Arendal, Sierra Leone is now on a solid footing to compile the relevant documentation for its submission to UNCLOS.”*

15 November 2013

---

Extract from a message received from Mr Ahmed Tejan Bah, Geologist, Sierra Leone Petroleum Directorate

*“I have attended the boundary delimitation workshops as a member of the task force from Sierra Leone. The workshops have given me the opportunity to analyse new geophysical data and develop the arguments to support our case for extended continental shelf. I am very much looking forward to defending our submission before the Commission on the Limits of the Continental Shelf. The team from GRID-Arendal has been instrumental in getting us to this point. One very good part of the programme for me personally has been all the information that we have collected on the West African continental margin. I would very much like to participate with the team from GRID-Arendal in turning this information into a text book and learning materials for students studying geology at the University of Sierra Leone. The offshore petroleum industry is vital for the development of our country and a better understanding of the geology will help our students get jobs in the industry.”*

7 November 2013

---

Extract from a message received from Mr Celedonio Placido Vieira, Director of Marketing and Business Development of Petroguin, Guinea – Bissau

*“Being in Arendal four or five times, I had the opportunity for learning a lot from GRID-Arendal specialists in order to build the technical basis for the submission of my country and that fact let me to keep believing strongly that our dream to make the extension of the shelf of my country beyond 200 nautical miles will, one day, become reality. I had also the opportunity for exchanging technically very important issues related to our common deal with colleagues from other West African countries.”*

8 November 2013

## Liberia desktop study

In the first step for Liberia to secure additional seabed resources through the delineation of an extended continental shelf, the Shelf team completed a desktop study outlining the potential outer limits of the continental shelf and a plan for obtaining the additional data required to credibly define these limits. GRID-Arendal has recently successfully obtained copies of permission to access important industry-acquired geoscientific data to complement the publicly available data used to undertake the desktop study. The proposed acquisition has not proceeded as yet, as the Liberian government has been unable to assemble the task force. However we are now in contact with a member of the Liberian National Oil Company who is taking the lead on the project and we hope to meet with him in early 2014.

## Supporting the Somali Continental Shelf Submission

Norway has played a key role in supporting Somalia delineate the outer limits of its marine jurisdiction. The technical component of the preliminary information document, outlining the indicative outer limits of the Somali

continental shelf, was prepared by the Shelf team. This preliminary information document was submitted by the Transitional Federal Government of the Somali Republic and accepted by the Secretary General of the United Nations in April 2009. Following this milestone, the Shelf team worked to complete the full submission documents. These were finalised in October 2013 and approved by the late Ambassador Longva. If successful, the submission has the potential to significantly increase the size of the marine territory of Somalia.

## ◆ Submission support to remaining developing states

### Building on the Pacific Maritime Boundaries partnership

Marine resources are the largest natural resource base for Pacific Islanders and contribute significantly to poverty reduction. They are critically important for government revenues, employment, livelihoods and food security. However there are tensions regarding resource use decisions. To address these issues the Pacific Maritime

### **SIGNIFICANT OUTCOME: The Pacific Maritime Boundaries partnership**

Almost 30% of the shared maritime boundaries in the region have been resolved and appropriate legislation enacted, contributing to regional stability and improved ocean governance opportunities. The partnership has played a key role in making this happen:

A delegation from the United States State Department was recently invited to attend the Pacific Boundary workshops, generally held twice a year. The head of the delegation, Dr Brian Van Pay from the Office of Ocean and Polar Affairs at the U.S. Department of State sent the following message to the partners:

*“The U.S. shares boundaries with a number of countries in the Pacific, and we appreciate this unique opportunity to sit down and make progress on settling our maritime boundaries in an atmosphere that is focused on achieving results. We have been extremely impressed by the technical and legal expertise of the participants.”*

29 November 2012

Following the successful presentation of the submission by Kiribati to the Commission on the Limits of the Continental Shelf in New York, Mr Romano Reo, Chief Surveyor & Mayor of Betio Town Council and Chairman of Kiribati Local Government Association sent this message addressed to the members of the Pacific Maritime Boundaries team:

*“Once again guys, this is a joint effort from you that has built our confidence, and I just want to say it again for this time round, THANK YOU ALL FOR THE MARVELOUS WORK AND EFFORTS THAT YOU HAVE ASSISTED US WITH.”*

1 August 2013

The following quote from Dr Arthur Webb, the Secretariat of the South Pacific Community, is recorded on the University of Sydney website:

*“We have achieved more progress in the last six years with this program than in the last three decades. Not only have Pacific Island countries worked collaboratively to settle maritime boundaries, they have also submitted joint claims to seabed territory which may contain valuable mineral resources.”*

[http://sydney.edu.au/news/84.html?newscategoryId=4&newsstoryid=12790&utm\\_source=console&utm\\_medium=news&utm\\_campaign=cws](http://sydney.edu.au/news/84.html?newscategoryId=4&newsstoryid=12790&utm_source=console&utm_medium=news&utm_campaign=cws)

Boundaries partnership,<sup>9</sup> in which GRID-Arendal is actively involved, is supporting regional organisations and governments to implement effective marine and coastal governance at community, national and regional scales. The partnership was recently part of a successful funding application to the Australian Government – the project received the highest ranking in the competitive grant process that saw less than 15% of the submitted proposals funded.

The Pacific Islands are coming to the end of the first phase in securing legal rights over their maritime jurisdiction and resources. Only three of nine preliminary information documents remain to be converted into full submissions. The completed submissions would see countries increase their cumulative seabed territory by an area equivalent to the size of India. As the mammoth task of delineating the outer limits of Pacific Island States is completed, the region is focusing on developing modern legislative frameworks for the definition of their territorial sea baselines

and other maritime zones. The partnership has been successfully supporting these endeavours with on-going capacity building activities.<sup>10, 11</sup>

Regarding further requests from countries outside the Pacific and West African initiatives, in May 2013, GRID-Arendal received a delegation from Benin to discuss a variety of technical issues related to their continental shelf work. Benin has progressed quite well on building a strong geological case. This request is in addition to those received in 2012 from Barbados, Uruguay, Chile and Costa Rica.

## ◆ Further develop the one stop data shop

### One Stop Data Shop (OSDS)

The OSDS<sup>12</sup> continues to be a vital component of the Shelf Programme and many countries have used it over the years (see Map below). First time requests are still being re-

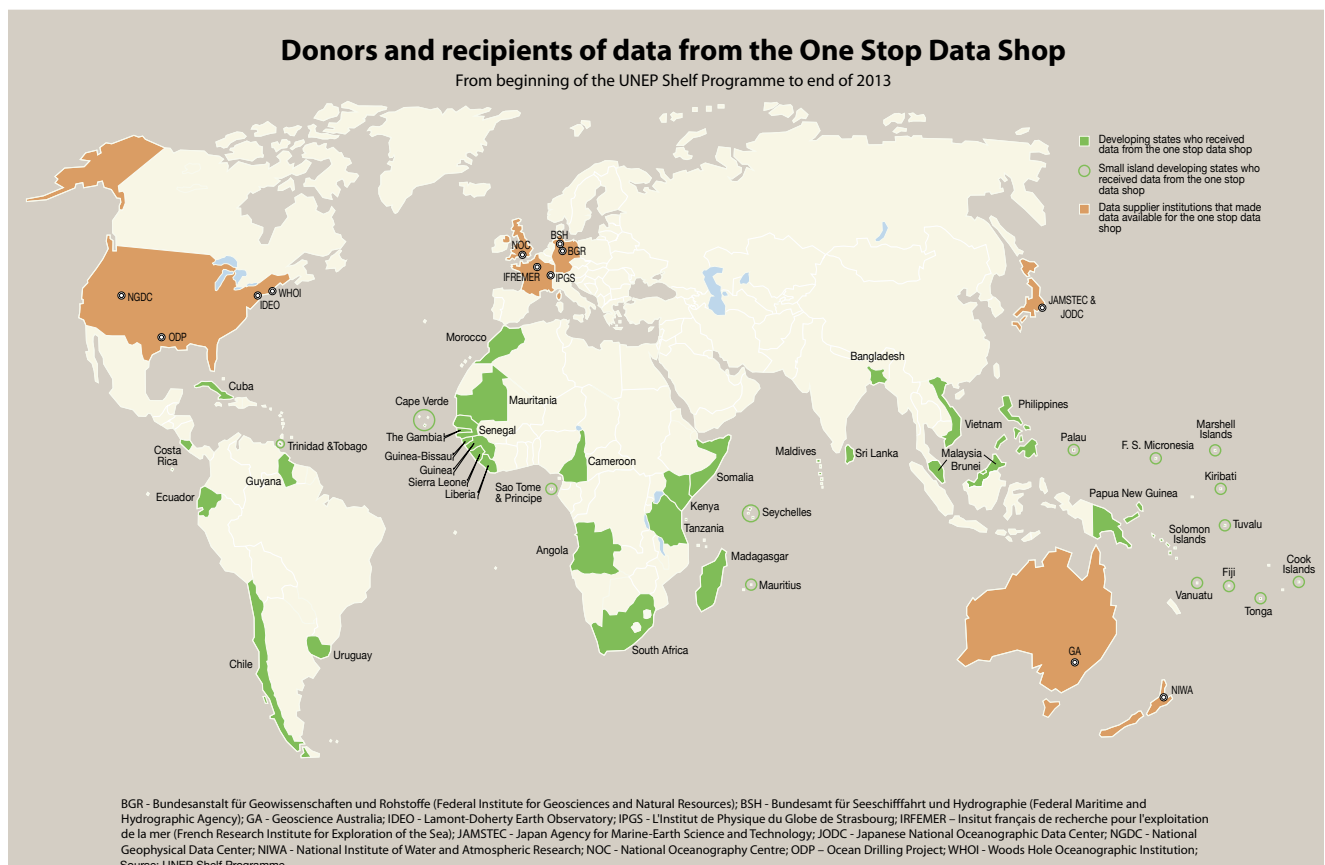
9. University of Sydney, GRID-Arendal, Geoscience Australia, the Commonwealth Secretariat, the Secretariat of the Pacific Community, the Forum Fisheries Agency, and the Australian Attorney General's Department.

10. <http://www.sidsnet.org/news/pacific-countries-sign-eight-maritime-boundary-agreements>

11. <http://pacific.scoop.co.nz/2013/12/kiribati-finalise-maritime-boundaries-with-the-us/>

12. <http://www.continentalsheff.org/onestopdatashop/1149.aspx>

Donors and recipients of data from the one Stop Data Shop: from beginning of the Shelf programme to end of 2013.



ceived from states – up-to-date data and information have recently been provided to Malaysia, Morocco and Ecuador as these countries work to complete their submissions for extended continental shelf. As GRID-Arendal incorporates new data into the system, they can be used to update and strengthen the case for extended continental shelf.

## OCEANIDS

The OCEANIDS web mapping tool,<sup>13</sup> developed by GRID-Arendal in 2010, now contains over 100 marine-related data sets, with recent maps covering topics including sea-floor geomorphology and marine litter. The system has been used to support the sustainable seas programme with maps focusing on the South China Sea and the Abidjan Convention Regional Sea area. OCEANIDS maps have routinely featured as the ‘map of the month’ in the marine newsletter. The OCEANIDS tool has also been used to support external projects, including Ecologically or Biologically Significant Area (EBSA) workshops for the North East Atlantic for the Oslo and Paris Conventions (OSPAR). The OSPAR commission has subsequently adopted the OCEANIDS tool to support its ongoing work programme.

Development and support for the underlying technology on which the OCEANIDS tool has been built, GeoIQ, was discontinued in 2013 due to the developer being purchased by the global mapping software company ESRI. Since then GRID-Arendal has been working with ESRI to develop a migration pathway for the current GeoIQ system to the ArcGIS online system. The migration of existing users and maps will be completed in early 2014.

## ◆ Support developing countries with extended continental shelf issues and the management of the deep seabed in and outside national jurisdiction

### Areas Beyond National Jurisdiction GEF project

The Global Environment Facility (GEF) project ‘Areas Beyond National Jurisdiction’ (ABNJ) is an FAO-UNEP initiative which aims to achieve efficiency and sustainability in the use of deep-sea living resources in ABNJ, through i) improving sustainable management practices for deep-sea fisheries, ii) protecting vulnerable marine ecosystems (VMEs) and Ecologically or Biologically Significant Areas (EBSAs) and, iii) practicing improved area-based planning for deep sea ecosystems. The project is scheduled to start in early 2014, subject to final GEF approval.

Component 4 of the GEF project focuses on the application of spatial planning in ABNJ. As one of the ex-

ecuting partners for this UNEP-WCMC led component, GRID-Arendal will tap into its continental shelf and other deep-sea experience to support the project over the next 5 years. GRID-Arendal has also been invited by the FAO to partner with their iMarine data infrastructure project to develop an application using seafloor geomorphology and the iMarine data infrastructure to assess and identify VMEs in the South East Atlantic Fisheries Organisation Area. MFA’s past funding investment in the Shelf Programme is thereby being leveraged as co-finance for our participation.

## 7.2 MANAGEMENT OF THE MARINE ENVIRONMENT

### ◆ Sustainable seas programme

The Sustainable Seas Programme builds on the results and the experience derived from the Shelf Programme. During the past few years the focus of the Shelf Programme has been the provision of assistance to West African Coastal states for the delineation of their extended continental shelf. Scientific and technical support and capacity building have been provided by GRID-Arendal in partnership with the Norwegian Petroleum Directorate while political issues have been coordinated by the Norwegian Ministry of Foreign Affairs through the West African Liaison Committee. The West African Liaison Committee has been an example of the establishment of a process to ensure African ownership and cooperation with Norwegian technical and financial support.

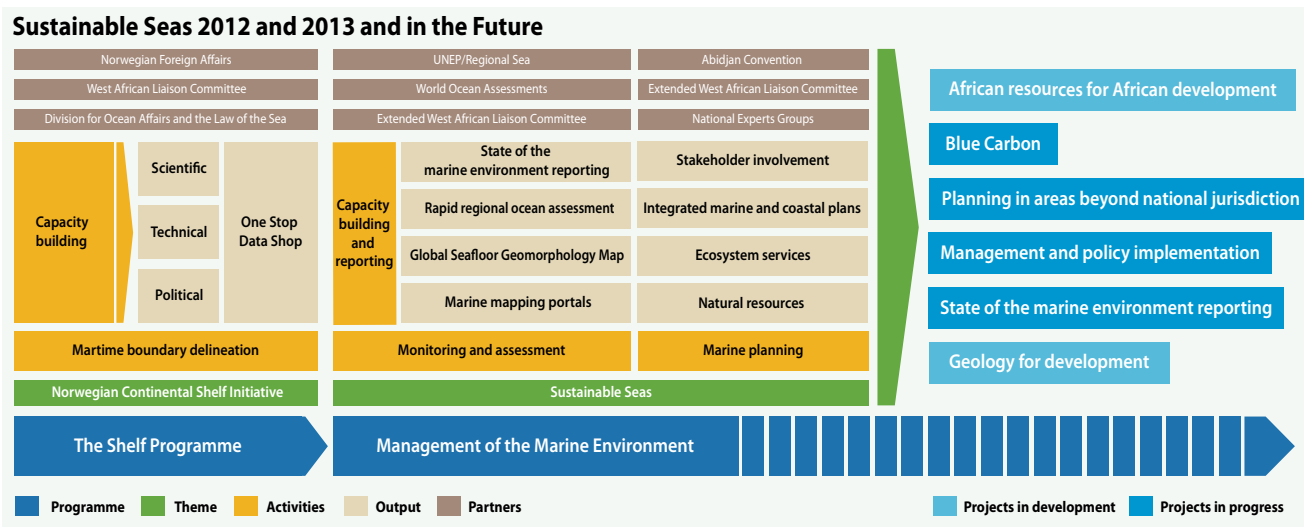
The purpose of the Shelf Programme has been continental shelf boundary delineation while the focus of the Sustainable Seas Programme is management of marine resources and the environment. Ecosystem Based Management forms the basis for marine monitoring, assessment and planning approaches in the Sustainable Seas Programme.

The Sustainable Seas Programme also supports the UNEP Regional Seas Programme and the UN World Ocean Assessment (WOA). It is working to combine the expert elicitation method into the UN WOA process with templates and indicators that are currently being tested and further developed in the Programme.

West-Africa and the Abidjan convention is selected as the geographical pilot area in the Sustainable Seas Programme. This based on the possibility of further collaboration in the area where GRID-Arendal has established experience through the Shelf programme, and ensuring maintenance and re-purposing of the West African Liaison Committee.

13. <http://www.grida.no/marine/activities.aspx?id=4476>





*Sustainable Seas 2012 and 2013 and in the future (GRID-Arendal)*

The Sustainable Seas Programme ties well in with the other programmes and sub-programmes of the Marine Division. The Blue Carbon Programme and the Ecosystem based Management/Spatial Planning, and the Green Economy and Natural Resources activity areas are all closely related to the Sustainable Seas Programme and form an integrated Marine programmatic area of focus.

GRID-Arendal's Sustainable Seas work will be part of the 'UNEP Global Support Programme: Integrated, Ecosystem-based National and Regional Seas Marine and Coastal Management and Policy Implementation'. This is a framework under development that aims to build capacity for Ecosystem-based management (EbM) in Regional Seas Conventions. In the meantime, we have focused attention in 2012-13 on building marine management and assessment capacities within regional seas conventions in West Africa and East Asia, thereby



*Participants at the Abidjan Convention Sustainable Seas Pilot Workshop in Grand-Bassam, Côte d'Ivoire.*

*Photo: Wouter Rommens, Consultant GRID-Arendal.*

also enabling member states to participate in the World Ocean Assessment.

#### **EbM approach through Regional Seas Programme in West Africa**

Coastal populations in the 22 member states of the Abidjan Convention<sup>14</sup> (the Atlantic coast of Africa, from Mauritania to South Africa) are to a large extent dependent on the marine environment for food and socio-economic development. Unsustainable management practices are threatening the capacity of the marine environment to provide these ecosystem services, with overfishing, ecosystem degradation and pollution among the most important issues in the region. Lack of coordination between marine planning processes, resulting in conflicts between sectors, is contributing to the problem. A new, holistic, EbM approach is urgently required.

The first 'Abidjan Convention Sustainable Seas Pilot Workshop' took place in Grand-Bassam, Côte d'Ivoire in June 2012. It was organized by the Abidjan Convention Secretariat and GRID-Arendal, in cooperation with the Institute of Marine Research<sup>15</sup> (Norway), World Wide Fund for Nature (WWF)<sup>16</sup> and the Ocean Data and Information Network of Africa (ODINAFRICA)<sup>17</sup> that is a part of the Intergovernmental Oceanographic Commission (IOC) of UNESCO.<sup>18</sup> The meeting was attended by 17 government representatives from the region who identified regional

14. <http://abidjanconvention.org>

15. <http://www.imr.no/en>

16. <http://wwf.panda.org/>

17. <http://odinafrica.org/>

18. Further cooperation with ODINAFRICA was discussed in the ODINAFRICA Planning and Review Workshop in Maputo, Mozambique in May 2013. <http://ioc-unesco.org/>

needs and priorities in 5 thematic areas: EbM, offshore oil and gas and EbM, marine data and information, marine assessments and communication and outreach. They also identified 'building blocks' for EbM during the implementation phase.<sup>19</sup>

The pilot workshop was followed through further discussions and specifications during the 10<sup>th</sup> Meeting of the Conference of the Parties to the Abidjan Convention (COP10) in Pointe Noire (Congo-Brazzaville) (12-17/11/2012). It was agreed that the Abidjan convention and GA first should establish a system for producing national state of the marine environment reports.

GRID-Arendal has based on this developed a common State of Marine Environment (SoME) reporting template to be used by all 22 states in the Abidjan convention. A regional marine environmental indicator set has been included, and the structure of the reports and the indicator set are based on the World Ocean Assessment.<sup>20</sup>

A capacity building workshop on SoME reporting was held in Abidjan from 31 October to 2 November 2013. The workshop promoted a methodology for rapid ocean assessment based on an expert elicitation process that is commonly used in business and economics, but is relatively new in environmental assessment. An innovative, new digital template and software for SoME production were created by GRID-Arendal and tested in Abidjan. Experts from the group of pilot countries (Sierra Leone, Liberia, Côte d'Ivoire, Gabon and Congo-Brazzaville) as well as some regional experts participated in the workshop, which was lead and organized by GRID-Arendal in cooperation with the Abidjan Convention Secretariat.

Experts assessed the status of biodiversity and marine ecosystems, as well as socio-economic issues, and pressures on the marine environment. After a review of workshop results a regional report for the Guinea Current has been produced that includes information from the five pilot countries, thus representing five separate SoME reports for the pilot countries.

This will be followed up with a national workshop using the same method in Libreville in Sierra Leone early in February. The results from this workshop and the Guinea Current reports will be presented at the next Abidjan Convention COP in Cape Town, South Africa in March 2014. The reports created using the new SoME web-based software can be viewed online.<sup>21</sup>

---

19. The full workshop report is available at <http://www.grida.no/news/default/5331.aspx>

20. USD 40,000 has been secured from the Abidjan Convention for this work. The work is closely coordinated with UNEP, the Regional Seas Programme, ODINAFRICA and IOC of UNESCO and the Norwegian Ministry of Environment.

21. <http://some.demo2.frameworks.no>

## UN Regular Process, World Ocean Assessment

The World Ocean Assessment (WOA) is the new name of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-economic Aspects. The WOA has its home in the United Nation's Division for Ocean Affairs and the Law of the Sea. Until now, there has been no system to provide an integrated, worldwide view of what is happening to the oceans and seas and our uses of them. The WOA will carry out a global review of marine assessments and report to the General Assembly by the end of 2014. GRID-Arendal is taking the lead on the sea floor mining chapter.

The World Ocean Assessment website<sup>22</sup> was designed and built by GRID-Arendal, with financial and in-kind support from the IOC of UNESCO, the Australian Government and UNEP. It incorporates an editorial system to handle author's contributions, peer-review and production of final content for the report. The website includes a database of over 500 registered experts from around the world that is currently being used by the UN to assemble teams of authors who will write the first WOA during 2014. It also includes information about the resources that will be used to produce the report and information about the workshops that have been taking place around the world to gather information, enlist experts and identify capacity-building needs for developing countries to conduct marine environmental assessments. Launched on 28 January 2013, the website features a video of the UN Secretary General, Ban Ki-moon, endorsing the WOA.

The WOA will make use of existing SoME reports from around the world, but many developing countries have been unable to prepare their own SoME report. To help address this capacity gap UNEP, GRID-Arendal and partners have made a concerted effort to deliver technical capacity to national experts via the Regional Seas network. Two workshops were held: in Bangkok, Thailand in September 2012 and in Abidjan, Ivory Coast, in November 2013 (mentioned above). During the Bangkok workshop scientific experts from eleven countries carried out a trial assessment of the South China Sea using the expert elicitation technique. The exercise demonstrated how the methodology could be used to produce an assessment of the condition of biodiversity across a region as large and complex as the South China Sea and to encourage review, questioning and real-time revision of the assessment process.<sup>23</sup>

---

22. <http://www.worldoceanassessment.org/>

23. The workshop was conducted in close cooperation with members of the Global Group of Experts of the WOA and the IOC of UNESCO and organized with the cooperation and support of UNEP through the Coordinating Body on the Seas of East Asia (COBSEA) and the North West Pacific Action Plan (NOWPAP). Funding support was received from the Asia-Pacific Network for Global Change Research (APN). The workshop report can be downloaded from <http://www.worldoceanassessment.org>

## **SIGNIFICANT OUTCOME: United Nations World Ocean Assessment (WOA)**

In support of the WOA, GRID-Arendal has created a dedicated website and helped to organize capacity-building workshops. The new website provides information for the general public as well as an editorial system to assist members of the WOA Group of Experts to compile information and draft their report by the end of 2014. The workshops have enabled developing countries in South East Asia and West Africa to conduct their own SoME reporting and to thus be able to participate in and contribute to the WOA.

GRID-Arendal has also developed a new web-based SoME reporting system designed to be populated with information gathered during workshops from regional and national marine experts. The so-called expert elicitation method, successfully applied by GRID-Arendal during workshops in Bangkok and Abidjan, is ideally suited to developing country situations, where conventional scientific data comprised of long time series are rarely available. Instead, the expert elicitation method is based on gathering local knowledge and unpublished evidence from local experts in a workshop setting.



### **Regional Scientific and Technical Capacity Building Workshop on the World Ocean Assessment**

Bangkok, Thailand 17–19 September 2012

Workshop report: South China Sea

## **◆ Blue Carbon Programme**

The Blue Carbon Programme continues to parallel international momentum and interest in the concept as one of GRID-Arendal's fastest growing efforts. Blue Carbon is a recent concept that describes the role certain coastal and marine ecosystems play in climate change mitigation and adaptation. Coastal Blue Carbon ecosystems include mangrove forests, seagrass meadows, and saltwater marshlands, which have been found to store carbon at rates sometimes greater than tropical rain forests. These ecosystems are also vital for coastal and island communities through the other services they provide, such as shoreline protection, fish nursery and habitat, tourism, and cultural significance.

The importance of Blue Carbon was brought to the attention of the international community by the 2009 UNEP Rapid Response Assessment Blue Carbon - The Role of Healthy Oceans in Binding Carbon,<sup>24</sup> produced by GRID-Arendal, and an IUCN report entitled The Management of Natural Coastal Carbon Sinks. Following the international interest stimulated by these reports, GRID-Arendal initiated a Blue Carbon Programme in 2011, and has established itself as a Blue Carbon center of excel-

lence, playing key roles in the Blue Carbon Portal,<sup>25</sup> the (GEF) Blue Forests Project and the Abu Dhabi Blue Carbon Demonstration Project. GRID-Arendal's efforts are closely coordinated with UNEP's Blue Carbon Initiative.

### **SIGNIFICANT OUTCOME: The Blue Carbon concept gathers momentum**

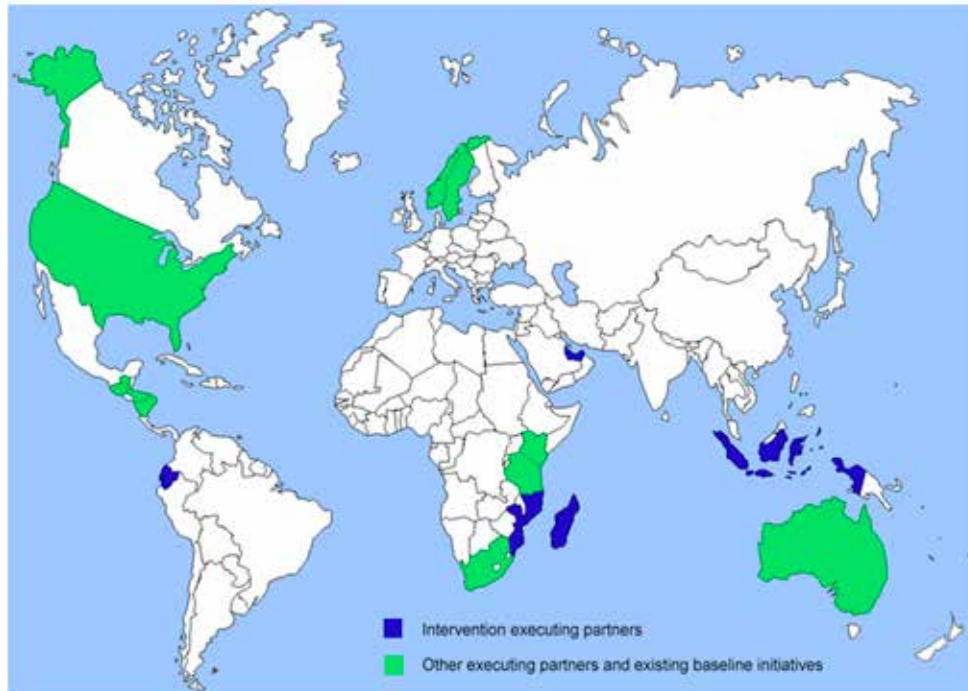
The Blue Carbon concept has received rapidly growing interest since GRID-Arendal raised awareness in 2009. Evidence of this 'sea change' includes:

- a synthesis of publications advancing Blue Carbon policy, economics and science published (by The World Bank, Duke University, UNEP-WCMC, NOAA, Climate Focus, Resources for the Future and others);
- many peer-reviewed journal articles advancing Blue Carbon science;
- international working groups set up to address Blue Carbon science and policy issues;
- methodologies developed for assessing Blue Carbon stocks; multiple Blue Carbon demonstration projects around the world are now attempting to employ these methodologies (including the United Arab Emirates, Indonesia, Vietnam, Kenya, Senegal, and Bangladesh).

24. <http://www.grida.no/publications/rr/blue-carbon/>

25. C:\Users\luana\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\SMKGGTOL\bluicarbonportal.org

*Geographic reach of the GEF/UNEP Blue Forests Project through the small-scale interventions, replication and up-scaling activities, and other project components.*



**Interventions:** Ecuador, Mozambique, Madagascar, Indonesia, UAE

**Other partners:** Kenya, Tanzania, South Africa, USA, Australia, Sweden, Norway, Guatemala, Honduras, Nicaragua

### GEF/UNEP Blue Forests Project

One of the Marine Division's most significant strategic project developments is the proposal for the GEF Blue Forests Project. This four-year project, expected to begin in the first quarter of 2014, will be implemented by UNEP<sup>26</sup> and executed by GRID-Arendal. It aims to provide a better understanding of natural coastal carbon sequestration and storage and other coastal ecosystem service values, and explores how these values can be utilized for improved and sustainable ecosystem management.

Core project partners<sup>27</sup> held their first formal meeting in January 2013. The responsibilities and expectations of each project partner and component were discussed, and a plan of action for incorporating them into the project proposal was agreed. Project consultations continued through 2013, and the Full-Sized Proposal (FSP) has now been finalized for submission by UNEP to the GEF. Additional project partners and funding were secured during 2013, including the US National Oceanic and Atmospheric Administration (NOAA)<sup>28</sup> and the Abu Dhabi Global Environmental Data

Initiative (AGEDI),<sup>29</sup> which together bring approximately USD11 million in co-financing to the project.<sup>30</sup> AGEDI's co-finance includes the entire Abu Dhabi Blue Carbon Demonstration Project managed by GRID-Arendal (see below), as a 'featured intervention' of the GEF project. Other interventions of the Blue Forests Project include those planned in Indonesia, Madagascar, Mozambique, and Ecuador. Replication and up-scaling activities are planned globally with targeted activities planned in Central America and Kenya.

During 2013 GRID-Arendal represented the GEF Blue Forests Project in the monthly Eye on Oceans and Blue Carbon<sup>31</sup> partner calls, a Special Initiative of the Eye on Earth Summit,<sup>32</sup> managed by AGEDI and UNEP. Since July 2013 GRID-Arendal has produced 'Bluepages', a bi-weekly newsletter for the Blue Forests Project intended to keep all partners updated on the progress of the project and up to date with relevant news and events.

26. <http://www.unep.org/>

27. Blue Ventures, Conservation International, Duke University, GRID-Arendal, the Indonesian Ministry of Marine Affairs and Fisheries, International Union for Conservation of Nature (IUCN), UNEP World Conservation Monitoring Centre (UNEP-WCMC), and the World Wide Fund for Nature (WWF)

28. <http://www.noaa.gov/>

29. <http://www.agedi.ae/>

30. Other partners brought into the Blue Forests Project in 2013 include the South African Institute of International Affairs (SAIIA), Stockholm University, Charles Darwin University, and Blue Climate Solutions (a project of The Ocean Foundation). Also, in September 2013, GRID-Arendal engaged with Washington, DC-based GEF Blue Forests Project partners and Blue Carbon interests, including UNEP-RONA, World Bank's Global Partnership for Oceans, NOAA, U.S. Department of State, The Ocean Foundation, Restore America's Estuaries, and the Marine Conservation Institute.

31. <http://www.eyeonearthsummit.org/special-initiative-blue-carbon>

32. <http://www.eyeonearthsummit.org/>



## Blue Carbon Project Guide

During 2013, the GRID-Arendal Blue Carbon Programme combined two targeted MFA Work Programme outputs (the development of a Blue Carbon ecosystem-based management strategy to support developing states and the production of a Blue Carbon Action Plan for national governments) into a deliverable for the Abu Dhabi Blue Carbon Demonstration Project: a report entitled *Building Blue Carbon Projects - An Introductory Guide*. Rather than develop potentially conflicting or duplicative reports, it was decided that these efforts compliment and enhance each other and that we could leverage Abu Dhabi's interest to produce a high quality product that would also meet our goals and interests. The report is intended to assist developing states in assessing their options for pursuing Blue Carbon and ecosystem-based management projects. Prepared in collaboration with many Blue Carbon partners,<sup>33</sup> the report draws on the experience of finalizing the GEF Blue Forests FSP, including project partner discussions and case studies. The report is expected to be published in January 2014.

## Blue Carbon Portal

GRID-Arendal has continued to maintain the Blue Carbon Portal,<sup>34</sup> a comprehensive community-based website for all matters related to blue carbon. The Portal is co-managed

33. Report partners included [UNEP](#), [UNEP-WCMC](#), [IUCN](#), [Blue Climate Solutions](#), [The Ocean Foundation](#), [Forest Trends](#), [Kenya Marine and Fisheries Research Institute \(KMFRI\)](#), [Blue Ventures](#), the Governments of Abu Dhabi, Indonesia and the Seychelles, and leading scientists in the field of Blue Carbon.

34. C:\Users\luana\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\SMKGGTOL\bluecarbonportal.org

with UNEP and received over 11,600 visits during 2013, with at least 8% of the visits coming from three developing nations (India, Indonesia and Kenya). GRID-Arendal ensures high quality control on Portal posts and stories, provides technical capacity for web site maintenance, and solicits Portal stories from international Blue Carbon partners. The Portal continues to support the rapidly growing Blue Carbon community and serves as a Blue Carbon Network - a virtual space to connect, share ideas and resources, and discuss issues. The Portal has been cited as a "selected international online resource on Blue Carbon" in a 2013 report issued by the Commonwealth Secretariat.<sup>35</sup>

## ADDITIONAL COMPONENTS OF THE BLUE CARBON PROGRAMME FUNDED BY OTHER (NON-MFA) SOURCES

### Abu Dhabi Blue Carbon Demonstration Project

The Abu Dhabi Blue Carbon Demonstration Project was initiated in November 2012 and is executed and managed by GRID-Arendal through a NOK 10 million contract with AGEDI. Although MFA funds have not been used in its execution, we have used this project to leverage activities and impact for our Blue Carbon Programme. During 2013 the entire project was offered by AGEDI's main funder, the Abu Dhabi Environment Agency,<sup>36</sup> to the GEF Blue Forests Project as 100% co-finance and is now considered one of the five 'featured interventions' of the GEF project. The Abu Dhabi Blue Carbon Demonstration Project is expected to be completed in January 2014.

35. Laffoley, D.d'A., 2013. The management of coastal carbon sinks in Vanuatu: realising the potential. A report to the Government of Vanuatu. Commonwealth Secretariat. London.

36. <https://www.ead.ae/en>

## SIGNIFICANT OUTCOME: Abu Dhabi Blue Carbon Demonstration Project

Significant results from the Abu Dhabi Blue Carbon Demonstration Project present excellent policy targets and examples of lessons learnt for the application of Blue Carbon through the other GEF Blue Forests Project interventions and other international projects and efforts. Results to date include the following:

- The Emirate of Dubai will be using the project's methodology and ecosystem services habitat protocols to carry out similar assessments;
- The Northern Emirates, especially two important habitat sites, will be incorporated into future AGEDI Blue Carbon work;
- Project findings have been incorporated into Abu Dhabi's National Biodiversity Strategies and Action Plans (NB-SAP) report;
- Project findings have been incorporated into the Abu Dhabi Environmental Performance Index (AD-EPI) report;
- Project findings have been incorporated into Environment Agency Abu Dhabi (EAD) business planning towards the Climate Change programme;
- Project findings have been directly incorporated into the Abu Dhabi 2030 Urban Structure Framework Plan (Abu Dhabi Capital 2030), planning for the Al Gharbia Region (Al Gharbia 2030) and marine spatial plans; and
- Project findings have been directly utilized by Abu Dhabi municipality.

Quote from H.E. Razan Khalifa Al Mubarak, Secretary General, Environment Agency Abu Dhabi (EAD):

*"Mangroves, along with the coastal ecosystem are key to maintained and improved sustainability of our Emirate. The Abu Dhabi blue Carbon Demonstration Project is an invaluable initiative, not only for the duration of the project but beyond. The experience and knowledge gained from this local project will help pave the way for other national blue carbon projects and international efforts for a greener economy and natural climate change mitigation."*



Lalao Aigrette, a mangrove scientist from Madagascar, examining a mangrove tree on a field trip in Abu Dhabi and contributing to the first international capacity building exchange in Blue Carbon (credit Blue Ventures).

The Demonstration Project has provided guidance to the Emirate on the use of Blue Carbon to secure ecosystem services vital to the Emirate and beyond (mangroves, saltmarshes, seagrass and potentially algal mats), based on scientific assessment. Stakeholders in the Emirate have shown enthusiasm for the opportunities the project presents; the establishment of a specialised fund for the protection of ecosystems is already in the early stages.

During 2013 GRID-Arendal incorporated the first international Blue Carbon capacity building exchange into the project. Scientists from Madagascar and Indonesia were able to participate in the Blue Carbon baseline assessment in Abu Dhabi. These scientists also represented partners from the GEF Blue Forests Project (Blue Ventures and the Government of Indonesia). According to Lalao Aigrette, a Mangrove Field Scientist from Madagascar, the experience will help “safeguard the ecological goods and services critical to increasingly poor and vulnerable Malagasy coastal communities, while also safeguarding critical biodiversity.”

### Blue Carbon Report

GRID-Arendal contributed to a major review of Australia’s coastal wetland ecosystems as part of the Blue Carbon Programme. Funded by the Australian Fisheries Research and Development Corporation the study compares the carbon capture and storage of these coastal systems with that of Australia’s terrestrial ecosystems, including native forests, grasslands, croplands, freshwater wetlands and agricultural land use. The report makes 12 major recom-

mendations aimed at integrating Blue Carbon into Australia’s national climate policy.<sup>37</sup>

## ◆ Ecosystem based management/spatial planning

### Support to UNEP Mediterranean Action Plan (MAP)

GRID-Arendal and UNEP/MAP completed the *State of the Mediterranean Marine and Coastal Environment Report (SoMMCER) 2012*. The objective of the report was to synthesize information on major environmental issues to support the continued development of an ecosystem-based approach to marine planning in the Mediterranean. A Summary for Policy Makers<sup>38</sup> was presented at the 17th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols, held in February 2012, in Paris, France. The full SoMMCER<sup>39</sup> was launched in January 2013.

The Mediterranean Sea is complex in its ecology and its social dimensions. Twenty-one countries border the basin of this heavily used and highly valued sea. The Barce-

37. Lawrence, A.J., Baker, E., and Lovelock, C.E. (2012). Optimising and managing coastal carbon: Comparative sequestration and mitigation opportunities across Australia’s landscapes and land uses, FRDC Report 2011/084, Fisheries Research and Development Corporation

38. <http://www.grida.no/publications/soemediterranean/>

39. <http://www.grida.no/publications/med/>

Iona Convention provides a critical framework for setting standards and targets acceptable to all the Contracting Parties, as well as for sharing necessary information.

**SIGNIFICANT OUTCOME: SoMMCER**

Feedback from the UNEP/MAP Coordinating Unit indicates that the SoMMCER approach and graphics have been very useful, not just for displaying information but also for eliciting really constructive discussion about what is known and not known about the Mediterranean, and its delivery of ecosystem services. In addition, the report has helped conservation NGOs build a case for a new and improved management regime for marine mammals, by assessing the current state of knowledge on the topic.

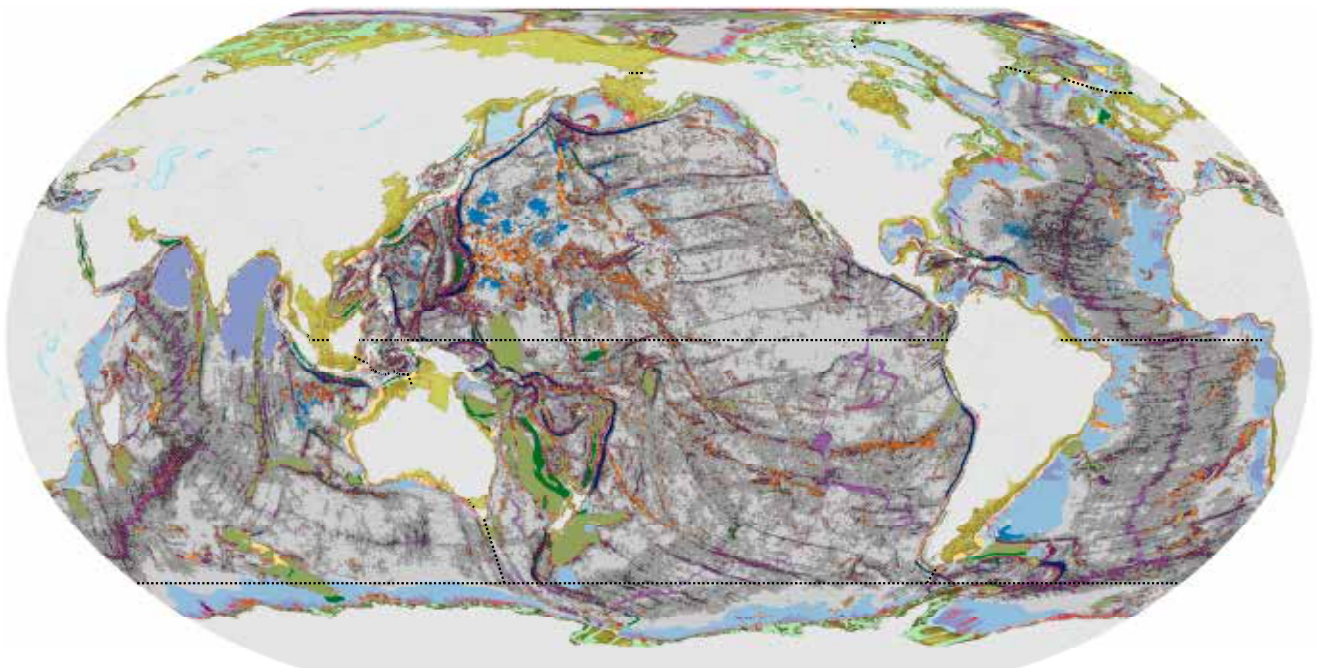
Further afield, the head of the Coastal Zone unit in Barbados, Dr. Lorna Innis, who is a member of the Group of Experts for the WOA, said that the SoMMCER has influenced how she and other Group of Experts members are shaping the WOA.

**New global map of seafloor geomorphology**

Through a joint initiative of Conservation International,<sup>40</sup> GRID-Arendal and Geoscience Australia,<sup>41</sup> a new global map of seafloor geomorphology has been created. Seafloor geomorphology is one of the more useful of the physical attributes of the seabed mapped and measured by marine scientists for ocean management. This is because different geomorphic features (such as submarine canyons, seamounts, spreading ridges, escarpments, plateaus, trenches) are commonly associated with particular suites of habitats and biological communities. Prior to this new product, our best available global seafloor geomorphic features map was over 30 years old.

In addition to the new global seafloor map, experts from GRID-Arendal and Geoscience Australia edited an atlas of seafloor geomorphic features and benthic habitats.

40. <http://www.conservation.org/Pages/default.aspx>  
 41. <http://www.ga.gov.au/>



- |                        |            |                 |                  |
|------------------------|------------|-----------------|------------------|
| Shelf - high profile   | Hadal      | shelf valley    | rise             |
| Shelf - medium profile | canyon     | rift valley     | terrace          |
| Shelf - low profile    | guyot      | glacial trough  | trench           |
| Slope                  | seamount   | trough          | plateau          |
| Abyss - mountains      | bridge     | ridge           | ocean boundaries |
| Abyss - hills          | sill       | spreading ridge |                  |
| Abyss - plains         | escarpment | fan/apron       |                  |

A new global seafloor geomorphic features map (GSFM) has been created by GRID-Arendal. The GSFM includes 131,190 separate polygons in 29 geomorphic feature categories and shows that less than 5% of seamounts, shelf valleys, submarine canyons, mid-ocean spreading ridges and rift valleys are managed in marine protected areas globally. The GSFM provides a foundation on which to build a global scale understanding of the living and non-living resources of the ocean – supplemented by interpretation and other spatial data it will help improve decision making on a range of global issues like food security, resource use and conservation.



GRID-Arendal staff also contributed 3 chapters to this scientific volume, published in 2012 by Elsevier.<sup>42</sup>

### Pacific Islands Marine Spatial Planning Information System

GRID-Arendal is managing and providing technical oversight for a large AUSAID-funded project to develop a Pacific Islands Marine Spatial Planning Information System (due for completion in June 2014). The effort continues a long-standing collaboration between GRID-Arendal, Geoscience Australia, SPC/SOPAC and the University of Sydney. The portal, now known as PacGeo, is a geospatial catalogue to administer and deliver marine spatial data to users. The system is built using the innovative GeoNode open source geospatial content management system, which can be easily maintained and expanded by the Pacific community.

### Pacific Marine Spatial Planning Workshop

As part of the 11<sup>th</sup> Pacific Islands Countries Maritime Boundaries Workshop held in Sydney, Australia from 25<sup>th</sup> November to 6<sup>th</sup> December 2013 GRID-Arendal assisted with a marine spatial planning workshop for Geographic Information Systems (GIS) professionals. This workshop focussed on building regional capacity in marine spatial data analysis and communication to support marine spatial planning. Participants were introduced to a range of processing and analysis techniques using the freely available spatial analysis software Quantum GIS. The workshop was well received, with requests for further training at future Pacific Boundaries Workshops. One participant commented that “out of the four similar workshops I had attended in Sydney, the last workshop was one of the most constructive and educational, especially in relation to GIS and spatial analysis”.<sup>43</sup>

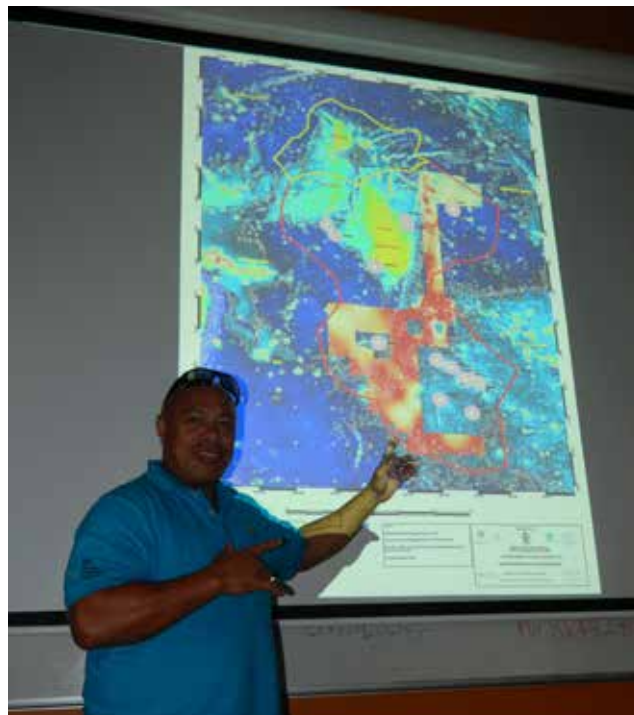
## 7.3 GREEN ECONOMY AND NATURAL RESOURCES

### ♦ Green Economy for a blue world

Applying the Green Economy concept to the ocean presents many new opportunities which can create new jobs, achieve a higher rate of sustainable growth, reduce poverty, protect biodiversity and secure sustainability obligations – all achieved through better protection and investment in habitats, marine fisheries resources and biodiversity. However, barriers to

42. Harris, P.T. and Baker, E.K., 2012 (Editors). *Seafloor Geomorphology as Benthic Habitat: GeoHab Atlas of seafloor geomorphic features and benthic habitats*. Elsevier, Amsterdam, 947pp.

43. Comment from Mr Malakai Vakautwale, Fiji's Maritime Boundary Coordinating Committee



Participant showing one of the maps he produced during the workshop

realizing greater opportunities and benefits need to be addressed, and industry working in the ocean needs to be greened, so the ocean can play a fuller, more central, role in economies at national, regional and global scales.

### Green Economy in a Blue World: global report

The Green Economy in a Blue World<sup>44</sup> report was completed in 2012.<sup>45</sup> The report argues that the ecological health and economic productivity of marine and coastal ecosystems, which are currently in decline around the globe, can be boosted by shifting to a more sustainable economic paradigm that taps their natural potential - from generating renewable energy and promoting eco-tourism, to sustainable fisheries and transport. It is viewed as a useful resource to promote policy shifts to a more sustainable and inclusive economy, and also as a textbook for introductory courses in the field.

GRID-Arendal was the lead coordinator for the report (and for the SIDS report below), working with an extensive team from international organizations.<sup>46</sup> GRID-Arendal also prepared the report's marine minerals chapter and conclusions. Follow-up outreach with UNEP and

44. <http://www.grida.no/publications/green-economy-blue-world/>

45. <http://www.grida.no/publications/green-economy-blue-world/>

46. Partners included UNEP, the [United Nations Development Programme \(UNDP\)](#), the [Food and Agriculture Organization of the United Nations \(FAO\)](#), the [International Maritime Organization \(IMO\)](#), the [United Nations Department of Economic and Social Affairs \(UN-DESA\)](#), the [International Union for the Conservation of Nature \(IUCN\)](#), the [WorldFishCenter](#) and GRID-Arendal.

other partners (e.g. the Commonwealth Secretariat) to transform the report findings into action has assisted developing countries to adopt green economy roadmaps (see sections below).

### Green Economy in a Blue World: Small Island Developing States (SIDS) Report

Linking with the Green Economy in a Blue World report, UNEP, the UNDESA SIDS Unit and GRID-Arendal produced a report that focused specifically on green economic challenges and opportunities for small island developing states — *Green Economy in a Blue World: Challenges and Opportunities for SIDS*. The report was launched by UNEP in December 2012 at the Nairobi Convention COP. Following the launch UNEP and partners organised two follow up workshops in 2013 to highlight the importance of the Green Economy for SIDS parties to the Cartagena and Nairobi Conventions respectively.<sup>47</sup>

As a result of their small size, small populations and remote location, SIDS face specific sustainable development challenges, and are particularly vulnerable to economic and environmental shocks. At the same time, many of them harbour extraordinary marine ecosystems and benefit from the services they provide. This study looks at SIDS' challenges and opportunities in greening five economic fields: fresh water management, waste management, small scale fisheries and aquaculture, energy, and tourism. Recommendations for SIDS include the articulation of clear transitional policy instruments, the establishment of sound regulatory frameworks, and coordination of policies across countries in regional groups.

### Green Economy in a Blue World capacity development partnerships:

#### i) Collaboration with the World Bank

A partnership with the World Bank was formalized in January 2012. GRID-Arendal was asked to develop and co-host a series of webinars on Green Economy in a Blue World themes as part of the World Bank Global Development Learning Network. Interactive webinars were conducted for the East Asia and Pacific Region Sector of the World Bank's Environment Group. The three sessions (held in April and June 2012 and November 2013) highlighted opportunities and discussed practical experiences of how ocean ecosystem-based economic development can be sustained and contribute to building strong and climate resilient communities.<sup>48</sup>

47. See <http://www.cep.unep.org/news/unep-commonwealth-secretariat-hosting-green-economy-workshop-april-15-17> and <http://www.nation.sc/article.html?id=240082>

48. Video archives of the sessions are available at: [http://www.jointokyo.org/en/programs/catalogue/green-economy\\_in\\_a\\_blue\\_world/](http://www.jointokyo.org/en/programs/catalogue/green-economy_in_a_blue_world/)

#### SIGNIFICANT OUTCOME: Meeting partner expectations (1)

Extract from a letter from Christophe Crepin Sector Leader, Environment East Asia and Pacific Region, The World Bank

*"We would like to express our gratitude for GRID-Arendal's partnership in hosting the first session of the "Green-Economy in a Blue World" Global Development Learning Network Seminar Series held on April 2012 ,3. As the premier session, it was successful in engaging with policy-makers from twelve nations in the East Asia and Pacific region with representatives from national and local governments, international NGOs, and academic institutions. We strongly believe that promoting the dialogue and transfer of knowledge between regional stakeholders is an important component of enhancing marine and coastal resource management".*

10 April 2012

Cooperation between GRID-Arendal and the World Bank continued through an engagement to design and facilitate the 3<sup>rd</sup> Wealth Accounting and Valuation of Ecosystem Services (WAVES) Partnership Meeting in Washington DC in April 2013. The Massachusetts Institute of Technology's Presencing Institute (PI) was engaged by GRID-Arendal as a co-facilitation partner, bringing in innovative social technologies and group facilitation approaches. The workshop preparation included interviews with a subset of the 200 workshop participants to determine expectations and adjust the design and agenda of the 5-day workshop. A post-workshop survey showed the highest positive responses (with respect to design and facilitation) of all 3 annual workshops to date. A feature article was also produced.<sup>49</sup>

#### SIGNIFICANT OUTCOME: Meeting partner expectations (2)

Extract from a letter from Glenn-Marie Lange, Program Leader, WAVES Global Partnership Agriculture and Environmental Services Department, The World Bank

*"We would like to express our deep gratitude to GRID-Arendal for facilitating the 3<sup>rd</sup> Annual Partnership Meeting of the World Bank-led Global Partnership for Wealth Accounting and Valuation for Ecosystem Services (WAVES). This was a pivotal meeting for the partnership. The facilitation brought a highly effective and innovative approach to building a broad partnership, sharing country experiences and technical training, and establishing a process to design the way forward [and was] instrumental in bringing together a community of practice that will support widespread adoption of natural capital accounting in the years to come."*

5 May 2012

49. <http://www.wavespartnership.org/waves/dynamic-exchange-natural-capital-accounting>

The World Bank has already approached GRID-Arendal with respect to designing and facilitating the 2014 WAVES partnership meeting. Although the broader impacts (for example on the state of ecosystems) of a workshop are difficult to ascertain, the positive response from participants on the process chosen and implemented, and the renewed interest demonstrated by the World Bank can be counted as recognition of GRID-Arendal's capacity to deliver innovative group facilitation.

## ii) Collaboration with the Commonwealth Secretariat

In April 2012, GRID-Arendal facilitated a half day Think Session with 46 participants from 23 developing countries of the Commonwealth. Country representatives were inter-ministerial and included members of parliament, academia and finance, foreign, fisheries and environment ministries. The Think Session was part of a 3 day Commonwealth Ocean Governance Forum which included UNEP Regional Seas and was a first step towards a capacity development partnership with countries to create and operationalize enabling conditions for a green economy for countries dependent on the oceans.<sup>50</sup>

### SIGNIFICANT OUTCOME: Meeting partner expectations (3)

Extract from a letter from José Maurel, Director, Commonwealth Secretariat

*"I would like to extend my personal thanks to GRID-Arendal for helping to make this event such a success and, in particular, for assistance in both delivering an extremely thought provoking half-day workshop on the Green Economy in a Blue World and for preparing material which was displayed at an evening reception during the forum. My Division has collaborated with GRID-Arendal for a number of years relating to submissions [to the] UN Commission on the Limits of the Continental Shelf. I understand that both UNEP and GRID-Arendal are keen to develop this relationship further in the area of ocean governance and in particular the application of the Green Economy concept to the oceans. I welcome the opportunity to work collaboratively in this area."*

8 May 2012

UNEP, GRID-Arendal and the Commonwealth Secretariat subsequently convened a Caribbean Green Economy in a Blue World exploratory workshop in Montego Bay, Jamaica in April 2013. The workshop was a deeper exploration of the opportunities and challenges presented by a green economy transition. Delegates from 12 Caribbean island states explored different pathways to a sustainable future with an environmental economist and an ecological economist.

50. A press release of the event can be found at: <http://www.thecommonwealth.org/news/34580/34581/246441/200412oceansgovernance.htm>

### SIGNIFICANT OUTCOME: Benefits of partnership

Collaborative agreements with partners such as the World Bank, the Commonwealth Secretariat and Duke University have multiple benefits - they strengthen the projects we are currently working on together, but also reduce the transaction costs, enhance the continuity of collaborative work, ensure more stable, continuous resources and enhance conservation science, policy and action more effectively than either organization working on its own.

## iii) Collaboration with Duke University

In discussions between GRID-Arendal and Duke, four areas of mutual interest have been identified, with collaborative work underway in two. These are: ecosystem services (underway), deep sea mining (underway), blue carbon and enabling a green economy in a blue world. An MoU with Duke University on these areas of mutual interest was formalized in October 2012 and runs until June 2015.

### TEEB for Oceans

In January 2012, GRID-Arendal in collaboration with The Economics of Ecosystems and Biodiversity (TEEB) Secretariat and Duke University produced a Think Piece, 'Why Value the Oceans?'<sup>51</sup> The Piece gathered commentary from 22 global marine experts and laid the foundation for the development of a full TEEB for Oceans and Coasts study.

GRID-Arendal, in partnership with UNEP Regional Seas and Duke University, with funding from UK DEFRA and under the auspices of the UNEP TEEB Office, has submitted a full project proposal to UNEP for a 4-year TEEB for Oceans and Coasts valuation study. The proposal has been approved for inclusion in UNEP's 2014-2015 PoW. TEEB for Oceans and Coasts will support the mainstreaming of biodiversity and ecosystem considerations in national policymaking and broader societal perspectives. Together with the UNEP TEEB Office and UNEP DEPI, GRID-Arendal is now engaged in fundraising for the 4-year TEEB study. A large number of potential partners have already been identified.<sup>52</sup> In addition a TEEB knowledge portal,<sup>53</sup> developed by GRID-Arendal, was launched in February 2013.

51. <http://www.grida.no/publications/teeb/>

52. TEEB Secretariat, Global Ocean Commission, World Ocean Council, national government policy advisors (e.g. options: Ecuador, Columbia, US, EU, Norway, UK, Pacific Island Countries), UNEP, UNDP, WAVES, Academia (e.g. Duke University, McGill, UBC, others TBD), Community-based decision makers (particularly from SIDS and Developing Coastal States - the Many Strong Voices network), member(s) of relevant Arctic Council Workgroups, Civil Society (e.g. WRI, CI, IUCN, WWF, Earth Economics, other TBD), Social Innovation Groups (e.g. Presencing Institute) and the mainstream media.

53. <http://teebcoceans.org/>

## 7.4 NATURAL RESOURCES

Natural resources of every kind are the foundation of our civilization. Non-living resources are particular priority in the context of societal development. In a world where non-living natural resources such as fossil fuels and minerals are increasingly scarce and predominantly located in developing countries, it is vital for decision-makers from the local to global level are provide with sound information covering critical environmental, social and economic aspects. GRID-Arendal continues with its tradition of identifying emerging issues, gathering the expertise and partnerships needed to explore these issues and producing credible information for policy consideration. During the course of the current reporting period, the Marine team focused on two emerging issues relevant to developing countries:

### Global Outlook on Methane Gas Hydrates

The *Global Outlook on Methane Gas Hydrates* report has been completed and will be launched in 2014. The 3-year effort to produce the report has established a dynamic international community of practice that includes national government scientists, academics, NGOs and the private sector. Through GRID-Arendal's coordination, this community of practice has expanded its approach to gas hydrates research (on viability of exploitation) to be more inclusive of social realities (e.g. wealth distribution) and ecological limits. The concept of a transitional global energy mix designed to lead society to a low to no carbon system is now part of the discussion and the policy advice being provided to decision makers.

### Pacific Deep Sea Minerals Assessment

The Secretariat of the Pacific Community-European Union Deep Sea Minerals in the Pacific Islands Region: A Legal and Fiscal Framework for Sustainable Resource Management Project (the DSM Project) is being implemented in 15 Pacific countries.<sup>54</sup> The Pacific Deep Sea Minerals Assessment, which is part of this project, has been completed by GRID-Arendal and was launched by SPC/SOPAC in December 2013.<sup>55</sup> The two-volume report provides the first integrated examination of the key aspects of mineral extraction for policy-makers, including the geological, biological, technical, social, economic, and fiscal components.

#### SIGNIFICANT OUTCOME: Pacific Deep Sea Minerals Assessment

These volumes have, for the first time, brought together international experts with a broad range of skills and backgrounds relating to deep sea minerals. Consolidating this information to support decision making, and the regional development of a legislative framework to underpin resource development, both within and beyond national jurisdictions, places the Pacific Island states at the forefront of responsible management of their non-renewable resources.

54. Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu, and Vanuatu.  
55. <http://www.grida.no/publications/deep-sea-minerals/>



Deep sea minerals



**ADDITIONAL MARINE-RELATED WORK FUNDED FROM OTHER (NON-MFA) SOURCES**

**EMODNET**

GRID-Arendal has been confirmed as a full partner for the next phase of the EU's European Marine Observation and Data Network's Hydrographic Mapping Lot. Having secured Euro 100,000 over 3 years, GRID-Arendal will coordinate the production of a digital terrain model (DTM) covering the Norwegian Sea and Icelandic Sea as part of the pan-European mapping effort. This project builds on expertise in processing multibeam bathymetric data gained through the Shelf Programme. The project kicked off in June 2013 with the first phase identifying regional data partners including the Norwegian Mapping Authority, the Norwegian Petroleum Directorate and the Faeroese Hydrographic Office.

**Blue Solutions GIZ (German Development Agency)**

GRID-Arendal has secured approximately Euro 500,000 over 4 years to support the GIZ-led Blue Solutions development effort. The global project is implemented by GIZ in partnership with IUCN, GRID-Arendal and UNEP's Freshwater and Marine Ecosystems Branch. Blue Solutions offers a knowledge network and capacity development platform to exchange and synthesize experiences and good practices, and to work towards the application of innovative concepts, methods and (financing) instruments for marine and coastal biodiversity conservation, sustainable use and restoration. GRID-Arendal is developing the theme on Integrating Ecosystem Services into Decision Making, together with UNEP, and also leads the projects activities on knowledge sharing and capacity building.

# 8 Polar and cryosphere

## 8.1 NOMADIC HERDERS AND LAND USE CHANGE

Nomadic Herders' is a long-term initiative, led by GRID-Arendal, which seeks to enhance biodiversity conservation and reduce land degradation in reindeer herding areas of Mongolia and the Russian Far East. Since its beginning in 2010, this community-focused project - which forms part of the UNEP PoW<sup>56</sup> - has laid a firm foundation

56. Sub-programme 1, Ecosystem-based Adaptation Output 1-6, Project 1a-P3

for achieving positive environmental impact in the years to come in some of the world's most important biodiversity hotspots, whilst at the same time improving people's livelihoods.

Over 2012 and 2013, the project has raised the capacity of reindeer herders to engage in local decision-making and co-management, heightened awareness within the Mongolian government of the value of engaging local communities in protecting the environment, and promoted cooperation internationally between environmental organizations and Indigenous people's organizations - for the benefit of both.



*The Nomadic Herders team undertakes consultations in February 2013 with reindeer herding families in the West Taiga, northern Mongolia.*

In April 2012, the Nomadic Herders was awarded a project preparation grant (PPG) by the Global Environment Facility (GEF) in order to develop a Full-Sized Project (FSP) focusing on biodiversity conservation and reduction of land degradation in Mongolia and the Russian Far East. GRID-Arendal and its partners subsequently undertook an extensive series of consultations at all necessary levels in Mongolia and the Russian Federation to develop project activities. At the community level, the team used the same participatory approaches employed since the beginning of the project to ensure local participation where reindeer herders are true collaborators in project planning and implementation. As a beneficial side effect the project has also built the capacity of the

local NGO, the Mongolian Taiga Nature Society, which is now the designated national coordinator for the main project phase.

Examples of the consultations within Mongolia over this period include:

- Four representatives from the Dukha reindeer herding community and a biodiversity expert participated in the project's International Stakeholder Meeting in St. Petersburg in November 2012;<sup>57</sup>

57. <http://reindeerherding.org/blog/nomadic-herders-international-stakeholder-workshop-sets-priorities-for-work-in-russia/>



- In late February and early March 2013, GRID-Arendal, the International Centre for Reindeer Husbandry (ICR) and members of the national project team held extensive consultations in Tsaganuur and in the East and West Taiga with reindeer herders. Feedback was incorporated in the design of the project and a much better understanding was achieved of the conditions on the ground;<sup>58</sup>
- Also during this period, the project team conducted extensive meetings with decision-makers, from the Ministries at the national level to administrators at the local level in Tsaganuur, to ensure that the project was in line with each administration level's plans over the coming years, and to ensure support for the project.<sup>59</sup>

#### **SIGNIFICANT OUTCOME: Nomadic herders project**

Through extensive consultation and persistent follow-up by the project team, the Mongolian Government has committed USD 1.32\$ million through its allocation of GEF funds, and a further USD 3.2\$ million of co-financing into the Nomadic Herders' project for the coming four years. The GEF FSP is expected to be officially submitted to UNEP and the GEF in early 2014, and activities to start by mid 2014.

The proposed structure for managing the GEF project is unique. Both the local community and relevant government institutions are strongly embedded within the project, both in terms of activities and as members of the project steering committee. Furthermore, this project represents one of the few current-day examples of environmental collaboration between Norway and Mongolia. It is also a unique example of how UNEP is engaging, through GRID-Arendal, to support environmental issues and Indigenous Peoples at the local, community level.

In October 2012, the Nomadic Herders' project took the opportunity of a Mongolian State visit to Norway to raise awareness at the highest levels of government. The President of Mongolia, His Excellency Tsakhiagiin Elbegdorj, was presented with a Mongolian edition of the UNEP report *Changing Taiga: Challenges for Mongolia's Reindeer Herders* (produced and edited by GRID-Arendal), and was made aware of some of the environmental and social challenges facing the smallest ethnic minority in Mongolia. Following this intervention - and at the suggestion of the project team - the President himself visited the reindeer herders in December 2012.<sup>60</sup>

58. <http://reindeerherding.org/blog/nomadic-herders-team-visits-reindeer-herding-communities-in-tsaganuur-and-east-and-west-taiga/>

59. <http://reindeerherding.org/blog/nomadic-herders-consults-with-the-mongolian-ministries/>

60. <http://reindeerherding.org/blog/reindeer-people-to-receive-monthly-allocation-the-ub-post/>

#### **SIGNIFICANT OUTCOME: Greater support for reindeer husbandry**

In May 2013, the Mongolian Government enacted a new Special Decree on Support to Reindeer Husbandry to support reindeer herders. The Nomadic Herders project cannot claim full attribution for this new policy. However, as a result of the project awareness-raising efforts, the project certainly played a major role.

During the 2013 World Environment Day celebrations, which were hosted by Mongolia, GRID-Arendal and partners organized a seminar on 'The Future for Reindeer Husbandry and Conservation in Mongolia's Biodiversity Hotspot'. Co-management of the Tengis-Shishged Protected Area was discussed and a preliminary working group established to take these issues further. World Environment Day also provided an opportunity for the Nomadic Herders project partners to meet with Mr. Achim Steiner, UNEP Executive Director, as well as high-level representatives from the Mongolian Government. At the same time, GRID-Arendal unveiled a unique photo exhibit with images from the reindeer herding areas of Mongolia in Ulaan Bataar's Central Square, where the photos remained on display throughout the celebrations.<sup>61</sup>

Over 2012 and 2013, the Nomadic Herders project continued to build important knowledge-sharing synergies with the EALLIN<sup>62</sup> project of the Arctic Council's Sustainable

61. For further information see: <http://reindeerherding.org/blog/reindeer-herders-join-in-celebrations-to-mark-world-environment-day/>  
62. EALLIN means "youth" in Sami

*The project team, including two reindeer herders from Mongolia, meet with the President of Mongolia (His Excellency Tsakhiagiin Elbegdorj) during his visit to Norway, October 2012*





World Environment Day seminar in Mongolia, June 2013.

Development Working Group, which aims to train reindeer herding youth in carrying out environmental impact assessments. The Nomadic Herders' project has also been endorsed by the Arctic Council's Conservation of Arctic Flora and Fauna Working Group (CAFF), an important indicator of demand, and recognition of the project's contribution to promoting best practise in sustainable reindeer husbandry across the Arctic and sub-Arctic. The Nomadic Herders' project is one of the few projects run by Observers (GRID-Arendal and the Association of World Reindeer Herders) that is endorsed by the Arctic Council.

*Mongolian version of Taiga report*

ШИЛЖИЛТИЙН ДҮР ТӨРХ NO.1



**ӨӨРЧЛӨГДӨН БУЙ ТАЙГА**

МОНГОЛЫН ЦААТНУУДАД ТУЛГАРЧ БУЙ АСУУДЛУУД

Since its endorsement in 2012, the project has delivered regular progress reports to the CAFF Board and presented updates at various meetings.<sup>63</sup>

In 2013, a new dedicated portal for reindeer herding was launched.<sup>64</sup> The portal features the nomadic herders project and is regularly updated with project news in Mongolia, Russia and Norway. Whilst the portal has served as a useful outreach tool for the project, no information has been published in the Mongolian language to date. However, now that the website infrastructure is in place, new articles are expected to be published in Mongolian in 2014. A short film on the project has been developed for the site and is also available on Youtube.<sup>65</sup>

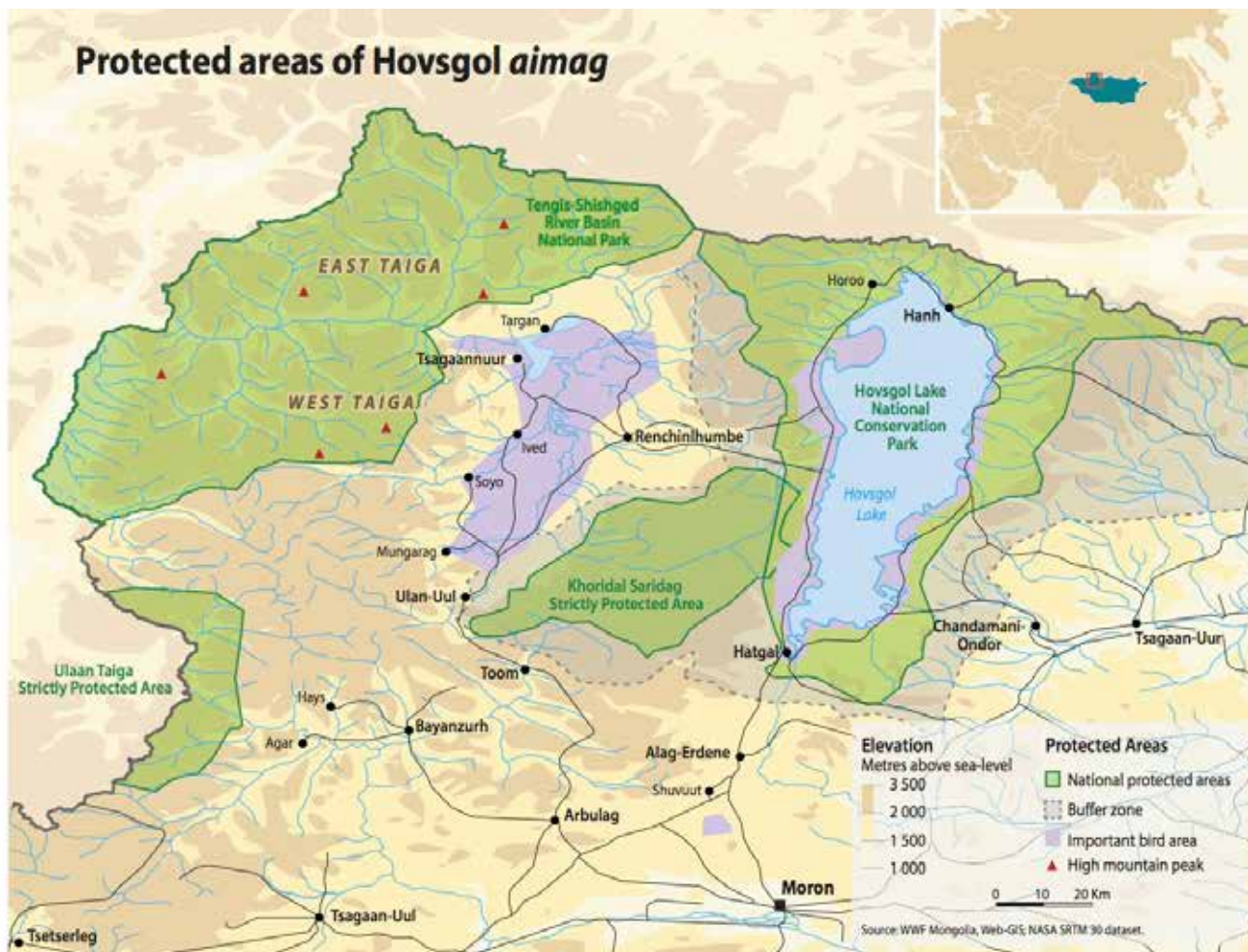
Possibilities for broadening the Nomadic Herders project to China were explored during the 5<sup>th</sup> World Reindeer Herders' Congress, when the Mongolian reindeer herding delegation (funded from the project) were able to network with their Chinese counterparts. However, based on the urgent needs within Mongolia, and guidance by the GEF Secretariat and others to keep project activities geographically focused, it was decided to remain focused on Mongolia and the Russian Far East only.

63. <http://www.grida.no/polar/news/5413.aspx?p=2>

64. [www.reindeerherding.org](http://www.reindeerherding.org)

65. <http://reindeerherding.org/blog/updated-version-of-nomadic-herders-intro-video-now-online/>, and at <http://www.youtube.com/watch?v=PHBQa-FhvUE>





By the end of 2012, the reindeer herders and their pastures were included into a newly designated protected area, the Tengis-Shishged River Basin National Park.

## 8.2 LINKING LOCAL AND SCIENTIFIC KNOWLEDGE FOR ADAPTATION TO CLIMATE CHANGE IN SIDS

'Integrating scientific and traditional knowledge to reduce community vulnerability' is an Ecosystem-based Adaptation (EbA) project to enhance resilience of local communities in Small Island Developing States (SIDS) to adverse climate change effects. The project's methodology merges time-honoured local knowledge and practice with the latest scientific research to determine appropriate and sustainable solutions. This project is part of the Many Strong Voices (MSV) programme (see below) which links Arctic and SIDS communities to address climate change. The lessons learned here will be shared with Arctic and SIDS communities in the MSV network.

The initial phase involves pilot programmes in Central America (Belize) and the Indian Ocean (Seychelles) to gather baseline data, consolidate existing methodologies for linking local and scientific knowledge, conduct fieldwork in collaboration with local communities, develop a toolkit, analyse preliminary results and prepare initial

policy recommendations, and ensure outreach to regional stakeholders. To date, one peer-reviewed article related to the project has been published in *Sustainability* (August 2012) focusing on EbA in the Caribbean. A second paper focusing on EbA in the AIMS Region<sup>66</sup> is under development.<sup>67</sup>

Site visits and potential partner meetings were held in Belize in late 2012, in collaboration with the Caribbean Community Climate Change Centre, and in the Seychelles in February-March 2013, coordinated by the Seychelles Ministry of Environment. A pilot phase methodology has been agreed upon in principle but fieldwork in both countries has been postponed to 2014 due to capacity shortcomings among local partners. Other follow-on activities have also been delayed as a result. GRID-Arendal is trying to address this issue by seeking additional funding which will help local organizations start implementation. Notifications on new funding applications are expected from March 2014.

66. Atlantic, Indian Ocean, Mediterranean, and South China Sea

67. <http://www.mdpi.com/2071-1050/4/8/1908>

## ARCTIC WORK FUNDED FROM OTHER (NON-MFA) SOURCES

### Many Strong Voices (MSV)

MSV brings together people and organizations in the SIDS and the Arctic to take collaborative and strategic actions on climate change mitigation and adaptation at the local, national, regional and international levels. Its goal is the well-being, security, and sustainability of communities, and it provides a platform for people in these regions to tell their stories to the world.

In September 2012, MSV supported the organisation of a workshop in Bougainville, Papua New Guinea. During the event, community leaders from Newtok, Alaska met with residents of the Cateret Islands in Papua New Guinea to discuss climate-induced relocation, a challenge faced by both communities.

At the UNFCCC COP 19 in November 2013, MSV held a global consultation entitled the Warsaw Dialogue as part of its project on climate change, human rights and community-based relocation. There is much discussion about forced migration in the context of climate change, much of it from a top-down perspective, but little from the bottom up. The consultation brought together 45 participants from affected communities<sup>68</sup> to begin a dialogue on community-based relocation, and share experiences and best practice between regions. Plans were developed for next steps – including how to support the voices of people and communities facing relocation.

GRID-Arendal participated in two research field trips to Indian Ocean SIDS during 2013 to explore future MSV options. A trip to the Seychelles in late February, together with colleagues from the Center for International Climate and Environmental Research - Oslo (CICERO), provided the opportunity to plan initiatives on ecosystem-based adaptation, forced relocation, and food security. A second research field trip was undertaken to the Maldives in early March.

GRID-Arendal took part in partner meetings and initial field visits for the new MSV project 'Perceptions and understanding of climate change and migration: Conceptualising and contextualizing for Lakshadweep and the Maldives'.<sup>69</sup> Participation in the September 2013 Asia Pacific Clean Energy Summit and Expo and Islands & Isolated Communities Congress, in Hawai'i, enabled MSV to es-

tablish new contacts for developing a project on sustainable energy in the SIDS and Arctic.

Following consultation with MSV's Advisory Committee, a new three-year funding proposal is currently being developed with University College London and will be finalized in January 2014. A first draft was submitted to the Ministry of Foreign Affairs earlier in 2013. (Note: due to a change in organizational priorities, CICERO will no longer be involved in MSV after 2013.)

### SIGNIFICANT OUTCOME: MSV's global outreach

Many Strong Voices has reached a point where numerous organizations and individuals are asking to participate. In November 2013, MSV was selected by readers of The Guardian newspaper in the UK as one of the most influential awareness raising campaigns in the world.

See: <http://www.theguardian.com/global-development-professionals-network/2013/nov/15/top-10-climate-change-campaigns>

### European Space Agency (ESA) project

The ESA-funded project, 'Supporting European Arctic Policy-Opportunities for Space-based Systems', led by GRID-Arendal with the support of the Polar View consortium members C-Core and the Tromsø center for Remote Technology, University of Tromsø, provided a coherent perspective on how space-based technologies can support European Arctic policies at national, regional and international levels. In March 2012 a cross-section of Arctic stakeholders including the private sector, indigenous peoples, and scientists were invited to identify priorities and needs for space-based systems. The final project report was submitted to the ESA later that month.

### University of the Arctic Thematic Network on Communicating Arctic Research

GRID-Arendal led a photography workshop<sup>70</sup> in Kuusamo, Finland in September 2012 organized by the Thematic Network on Communicating Arctic Research at the Oulanka Research Station. The goal of the new network is to link professional photographers, information visualization specialists and art students together with science students, Arctic researchers, and holders of traditional knowledge, to create photo, video, and map-based communication materials that can be used for publishing, scientific research, public exhibiting, and web distribution. The project will continue for the next three years with new funding from the Prince Albert Foundation.

68. Participants included representatives from the Pacific, Caribbean, Bangladesh, Nepal, Tibet and Taiwan

69. Project partners include GRID-Arendal, CICERO, The Energy and Resources Institute from India, the Ministry of Housing and Environment in the Maldives, the Centre for Earth Research and Environment Management, the University of Manchester, and the University of Reading.

70. <http://www.uarctic.org/SingleArticle.aspx?m=1225&amid=13464>

## Strategic Environmental Impact Assessment of Development of the Arctic

This project aims to strengthen communication and outreach on the European Union's responses to addressing the challenges induced by a rapidly changing and developing Arctic. GRID-Arendal, attended the kick-off meeting for this project in Rovaniemi, Finland, in February 2013. Stakeholder consultations took place in October 2013 and a follow-up meeting is scheduled for January 2014. GRID-Arendal will facilitate the consultations, and lead the production of a stakeholder recommendation report following these meetings.<sup>71</sup>

### Arctic NGO Forum

The kick-off meeting of the Arctic NGO Forum took place in Arendal in January 2012. The Arctic NGO forum is a 3-year project to promote a platform for NGOs with an Arctic agenda and interest in working together and to provide advice to the European Union (EU) as it develops Arctic policies. It is financed by the EU and coordinated jointly by GRID-Arendal and Ecorys, Netherlands. The first meeting agreed the Forum's *modus operandi*. In November 2012, the Arctic NGO Forum held a workshop in Haparanda, Sweden, to examine the implications of oil and gas development in the Polar Regions. The workshop brought together NGOs working in the Arctic, EU representatives, researchers and indigenous peoples. A planning meeting was held in April 2013 and a workshop on Arctic marine issues was held in the autumn of 2013.

## OTHER MOUNTAIN/CRYOSPHERE WORK OUTSIDE THE MFA WORK PROGRAMME

### Himalayan Climate Change Adaptation Programme (HICAP)

GRID-Arendal continues to be an active partner in HICAP, which is funded by the Norwegian Government through CICERO:

- In August 2012 GRID-Arendal took part in the HICAP Regional Review and Planning Workshop hosted by the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal. The workshop was designed to: (i) enhance interactions and understanding among HICAP partners; (ii) review HICAP activities and achievements; (iii) identify new/potential areas of partnership; and, (iv) draft the work plan to December 2013.
- GRID-Arendal attended the Bhutan+10 Conference on Gender and Sustainable Mountain Development in a Changing World held in in October 2012. The conference brought together stakeholders from the Hindu Kush-Himalayan region and beyond and provided GRID-Arendal with an opportunity to conducted interviews, take photos and videos, and gather other data for future HICAP publication projects.
- GRID-Arendal and ICIMOD organized a training workshop in Nepal, February 2013, for journalists from Nepal, India, Pakistan and China. Over the six days of active training, the 20 participants produced stories, video, and photo features about climate change related subjects. The workshop was facilitated by experienced senior reporters associated with international media.
- In March 2013 the Directors of the three partner organisations, CICERO, ICIMOD, and GRID-Arendal, met for the Promoters Meeting of HICAP in Kathmandu, Nepal. It was agreed that GRID-Arendal has specific responsibilities relating to the HICAP communication strategy and the joint production of a food security report.
- Also in March 2013, GRID-Arendal visited HICAP<sup>72</sup> project sites in the North East Indian state of Assam where recent climatic changes are making the annual flooding season more erratic and unpredictable, and ultimately affecting the livelihoods of thousands of people. The site visits provided greater clarity on two thematic areas that HICAP will focus on in coming years: ecosystem services<sup>73</sup> and food security.<sup>74</sup>

---

71. GRID-Arendal is one of nineteen partners in this project, which brings together leading Arctic research and communication centres and universities, and is headed by the Arctic Centre of the University of Lapland.

---

72. <http://www.icimod.org/?q=4779>

73. <http://www.icimod.org/?q=7229>

74. <http://www.icimod.org/?q=7230>



# 9 Capacity building and assessment

## 9.1 AFRICA

### ◆ Support to UNEP's flagship products – GEO-5, AEO-3 and national environment summaries (only 2012)

GRID-Arendal's Africa Programme coordinated processes contributing to two of UNEP's flagship reports – the fifth Global Environment Outlook (GEO-5) and the third Africa Environment Outlook (AEO-3). GRID-Arendal provided one of the two Coordinating Lead Authors for GEO-5's regional chapter on Africa<sup>75</sup> and subsequently assisted UNEP with the Africa launch of GEO-5 in Addis Ababa, Ethiopia, one of the 25 launches worldwide coinciding with the Rio+20 Earth Summit in June 2012. The report and its associated capacity building received significant mention in the Rio+20 Outcome Document.<sup>76</sup>

For AEO-3,<sup>77</sup> GRID-Arendal compiled the guidelines for authors, provided the Coordinating Lead Authorship of the main report and Summary for Policy Makers (SPM), and supported outreach activities. The AEO-3 SPM was launched in September 2012 during the 14<sup>th</sup> session of the Africa Ministerial Conference on the Environment (AMCEN) in Arusha, Tanzania, as well as in 2013 during the First Universal Session of the Governing Council of UNEP. The full AEO-3 report, whose theme is environment and health, was launched in October 2013 during the 5<sup>th</sup> special session of AMCEN, held in Gaborone, Botswana.

To widen the dissemination of key findings in both GEO-5 and AEO-3 reports a process was initiated to visually repackage some messages for online publishing. Much of this process was subsumed under the new UNEP-Live initiative which contains country-relevant case studies and country environment profiles reported under the Africa Environment Information Network (see below). In addition, GRID-Arendal and UNEP hosted a team of experts from Africa to discuss the GEO-5 messages and use of the report findings in policy setting.

75. [http://www.unep.org/geo/pdfs/geo5/GEO5\\_report\\_C9.pdf](http://www.unep.org/geo/pdfs/geo5/GEO5_report_C9.pdf)

76. GA Document A/66/L.56

77. <http://www.unep.org/pdf/aeo3.pdf>

### SIGNIFICANT OUTCOME: AEO-3

While it is early to assess the impact of the AEO-3 process, it is notable that the theme and analytical framework have been well received by countries in the region, which are keen to assess environment and health linkages. For example, Zimbabwe's third state of the environment report will incorporate the environment and health thread, and the team that will put together the report underwent training on Integrated Environmental Assessment and Reporting using the AEO-3 analytical framework. The training was requested by Zimbabwe, and facilitated by GRID-Arendal and UNEP.

### ◆ Promotion of Zambia and Zambezi Atlases' findings and tracking their immediate impact (only 2012)

The *Zambezi River Basin: Atlas of the Changing Environment*,<sup>78</sup> a component of the 2010-2011 MFA Programme Cooperation Agreement, was completed in 2012. The atlas was requested by the Zambezi Watercourse Commission as baseline information to support their work and was compiled by the Southern Africa Research and Documentation Centre, with GRID-Arendal undertaking research on remote-sensing data, and providing editorial and production support. Outreach activities included a launch of the atlas on 29 May 2013 by Angola's Minister of Water, who is the current chairperson of the Southern African Development Community (SADC) Ministers of Water. A second showcase of the Zambezi Basin Atlas took place during the World Tourism Organization General Assembly in August 2013. In addition, a promotional video was produced with guidance from GRID-Arendal.

The content of the Zambia Atlas was developed by both GRID-Arendal and the Zambia Environmental Management Agency. The production followed training offered by GRID-Sioux Falls in the collection, processing and visualization of satellite data. The Zambia Atlas responds to growing concerns in Zambia about the impact of the fast recovering copper mining industry on the environment and urbanization. Print and USB flash drive versions of the atlas were published in late 2013, and the launch took place on 18 December 2013.

78. <http://www.grida.no/publications/zambezi/>



## SIGNIFICANT OUTCOME: Zambezi River Basin: Atlas of our Changing Environment

Credible scientific information provided in the Zambezi Atlas will inform the institutional and legislative processes that will shape developments in the Zambezi River basin over the next decade. As the first publication to carry their logo, the Zambezi Watercourse Commission (ZAMCOM) is very pleased to be associated with the publication.

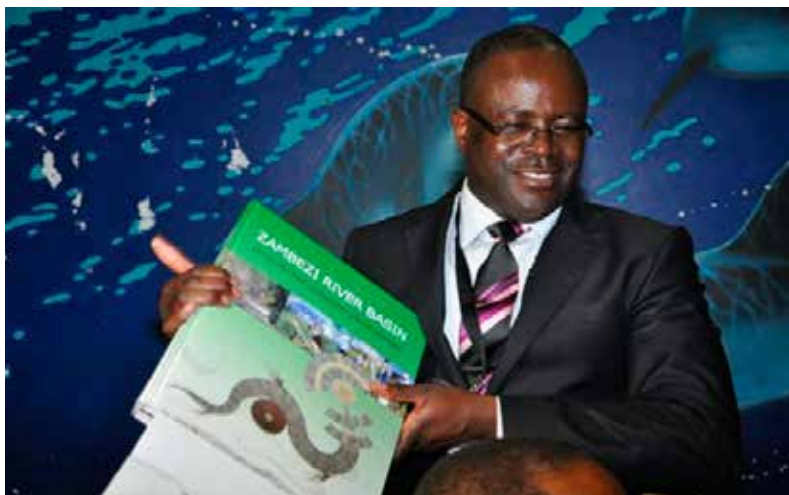
See [http://www.zambezicommission.org/index.php?option=com\\_content&view=article&id=40:changing-the-environment-in-the-zambezi-river-basin&catid=15&Itemid=18](http://www.zambezicommission.org/index.php?option=com_content&view=article&id=40:changing-the-environment-in-the-zambezi-river-basin&catid=15&Itemid=18)

Publication of the Atlas has renewed interest in basin management issues among the eight riparian countries. After the launch in Angola:

- the Angolan government minister requested that the report be translated into Portuguese for the benefit of the two countries in the Zambezi basin whose official language is Portuguese; the Angolan Embassy in Harare has since committed to support the translation;
- the University of Copenhagen expressed interest in blending the atlas methodology with their own in mapping the forest resources of Eastern and Southern Africa
- interest has been received to use the atlas methodology and visualization from potential partners such as Germany's Gesellschaft für Internationale Zusammenarbeit (GIZ) and Kreditanstalt für Wiederaufbau (KfW), which have activities in the Kavango-Zambezi trans-frontier conservation area; and
- interest has been expressed for similar atlas products for the Limpopo and Okavango river basins, and Lake Victoria basin (see below).

Based upon the previous and current GRID-Arendal involvement in various transboundary water projects in Eastern Europe, Caucasus and Central Asia (EECCA) and in Africa a major planning exercise was undertaken in 2013 to explore the possibilities for a considerable expansion of Transboundary Waters Resource Management (TBWR) activities in Africa:

- A plan was developed, together with the Lake Victoria Basin Commission, for an Atlas for the Lake Victoria River Basin and the project is planned to start in 2014. The Commission is also financially committed to Atlas development;
- The Executive Secretary of the Lake Victoria Basin Commission inquired about a long-term cooperation agreement with GRID-Arendal to strengthen the Commission's capacities on communication and outreach to its main stakeholders;
- Cooperation has been established with the Global Water Partnership (GWP) to provide technical support to the 'Water Security and Climate Resilient Development' programme. The first plan is to develop an Atlas for the Limpopo River Basin together with GWP and the Limpopo River Basin Commission (LIMCOM). GWP is financially committed to supporting the Atlas development.
- Planning is underway for An Assessment of Ecosystem Services Status and Possibilities in the Okavango River Basin, together with UNEP, GWP, the Okavango River basin Commission (OKACOM) and the United States Agency for International Development (USAID);
- Discussions are ongoing with UNEP (DEPI and DEWA), regarding cooperation in the development of a transboundary assessment of Lake Turkana in 2014.



*Presentation of the Zambezi River Basin Atlas to the Zambia delegation on the occasion of the launch of the Atlas in May 2013 in Angola.*



20 June 1984 – 27 June 1989



01 July 2011 – 23 July 2011

*Reduced Water body of Lake Mweru Wantipa*

### ♦ Africa environment information network (2012 and 2013)

The Africa Environment Information Network (AfricaEIN) has been revived in order to tap into other information networks, including the Global Network of Networks and UNEPLive.<sup>79</sup> The AfricaEIN is a network of information and data centres, institutions and experts across Africa, which aims to avail information and data for environmental assessments such as the Africa Environment Outlook. A range of activities has been proposed including community involvement to solicit citizen observations as input for the indicators-based country environment profiles, which are being piloted in four countries - Zambia, Ghana, Tanzania and Cameroon.<sup>80</sup> The pilot profiles are being used as templates for regular, country-led, easy-to-update environmental reporting. A core set of indicators for environmental reporting in Africa was also compiled although these are yet to be agreed upon by countries. The indicators should ensure that environmental profiles are comparable. AfricaEIN members had also planned a publication on Land and Oceans Connections but this did not materialize, due to insufficient funding.

The AfricaEIN project will continue into 2014, and a funding proposal has been submitted to the GEF for a medium-sized project. Plans for the future AfricaEIN are set out in a booklet entitled *Strengthening the Africa Environment Information Network: A Framework to Increase Access*

79. As part of the revival process, the AfricaEIN drew lessons from the European Information Network and undertook a detailed survey with UNEP to assess the strengths and weaknesses of the earlier phase of the Africa network.

80. See <http://aein.aspen.grida.no>

to Environmental Information and to Support Africa's Development Planning Processes.<sup>81</sup>

### ♦ Raise awareness on Africa's environmental hotspots, promote resource efficiency and empower governments and local communities with decision-making tools (only 2012)

In 2012 a quick study was undertaken on the efficient use of Africa's resources, focusing on energy, land and water. The study on land focused on changing land use patterns, especially the transformation of smallholder farming with large-scale commercial farming practices. It looked especially at palm farming in Cameroon and cereals production in Sudan, Ethiopia and Uganda. Based on the study findings, a narrowly focused project on large-scale land acquisitions was conceived, and a detailed project proposal was developed and presented to various potential funders during the Rio+20 conference. The large-scale land acquisition project is discussed in 5 below.

The study on energy focused on the potential for hydropower generation in Africa. While the region has significant potential for hydropower, much of this has not yet been tapped. However, given the current land use and ownership arrangements, any investments in hydropower infrastructure will have significant impacts on local livelihoods. This observation led to discussions with WWF-Norway and WWF-Uganda leading to the Uganda hydropower mapping project discussed in 6 below, including deliverables such as interactive Geo-IQ mapping and training of local users.

81. <http://www.grida.no/publications/africa%2Dein/>

## ◆ Environmental impacts of large-scale land investments (only 2013)

GRID-Arendal prepared a factsheet<sup>82</sup> together with maps and graphics on the state of large-scale land investments in Africa. The maps and graphics show countries that are affected by the large-scale land investments, as well as the investing countries, including the magnitude of their investment. From a donor perspective, as well as from research findings, these investments are a topical issue in Africa that merits awareness raising. While there is ongoing research on large-scale land acquisitions, especially on the socio-economic front, there seems to be a paucity of research on their impacts, such as 'water grabbing' for example. Secondly, much of the research has focused on land resources while ignoring the equally important water resources. In addition, land remains an emotive and sensitive issue, which many countries in Africa are not keen to engage in.

It is for these reasons that GRID-Arendal's focus is shifting to water resources despite a project proposal having been compiled on large-scale land acquisitions. Interest has been expressed by UNEP and the African Ministerial Conference on Water to partner with GRID-Arendal and undertake detailed studies on water grabbing in Africa. Consultations with prospective funders and partners will be further pursued in 2014.<sup>83</sup>

## ◆ Mapping hydropower potential on the upper Nile (only 2012)

Through an agreement with WWF, GRID-Arendal collaborated with WWF-Uganda in mapping the hydropower potential of Uganda, including preparing interactive visual tools to demonstrate the local impact of hydropower investments on the environment and society. GRID-Arendal and WWF both allocated NOK 200,000 to the project and critical data were collected through the Uganda Environment Information Network. Under the project, GRID-Arendal prepared two printed maps showing the location of current and planned electricity facilities in Uganda. The maps, together with additional data layers, are also available through an online interactive mapping tool using GeoIQ.<sup>84</sup> A team of Ugandan experts were subsequently trained on how to use and update both the print and online maps.

82. <http://www.grida.no/publications/land-acquisition/>

83. Organizations that have been contacted include Noragric, Norwegian Research Council, Swiss Development Cooperation, and the International Institute for Environment and Development.

84. <http://geoiq.grida.no/maps/1072>

While there was hope that WWF-Uganda will use the online interactive map to argue for or against investments in hydropower infrastructure in the country, there are also fears that the Geo-IQ platform may not be available in the long-term following its acquisition by ESRI who are keen to promote the commercial GIS software.

## ◆ Environment and crime (only 2013)

Transnational organized environmental crime involves five key areas: i) Illegal logging and deforestation; ii) Illegal fisheries; iii) Illegal mining and trade in minerals including conflict diamonds; iv) Illegal dumping and trade in hazardous and toxic waste; and v) Illegal trade and poaching of wildlife and plants. These forms of transnational crime causes financial losses estimated at USD 90-230 billion every year, potentially twice as much as global ODA. They therefore have devastating effects on developing economies.

In 2013, GRID-Arendal used MFA funds to support the developing environmental crime programme. Additional co-funding of over NOK 60 million was secured for the period 2013-2015 from multiple partners.<sup>85</sup>

GRID-Arendal, together with the UN Office on Drugs and Crime (UNODC), was granted NOK 15 million by NORAD for the three-year project 'Organised Forest Crime (ORGFORC) – Combatting Transnational Organized Forest Crime and Corruption'. The purpose of the project is to reduce corruption and organized crime associated with illegal logging, thereby paving the way for REDD funds and investments to also achieve significant sustainable development impacts on poverty reduction and better governance. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is also a collaborating partner. In addition, GRID-Arendal has developed together with INTERPOL a 'Law Enforcement Assistance to Forests (LEAF)' project to support government agencies and INTERPOL in training frontline police officers, investigators and National Central Bureaus, as well as supplying information on illegal logging to improve international enforcement operations.<sup>86</sup> [GRID-Arendal assists with information gathering and research to help inform INTERPOL and collaborating countries.](#)

85. Other funders include the United Nations Office on Drugs and Crime (UNODC), INTERPOL, World Customs Organization (WCO), The United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN REDD), UNDP, UNEP and FAO and a range of countries including the USA.

86. <http://www.interpol.int/Crime-areas/Environmental-crime/Projects/Project-Leaf>



ORGFORC and LEAF are evolving quickly, and have already provided a range of results both on the ground and in improved international collaboration to combat illegal logging, including through meetings and courses worldwide. GRID-Arendal has been central to the overall development and initiation of both projects. Building on its [close cooperation and involvement in these two projects](#) GRID-Arendal was also closely involved in initiating a collaborative effort in East Africa with UNODC, INTERPOL and UN REDD. A joint proposal for USD 5.7 million has been developed and submitted to the Norwegian Government.

#### **SIGNIFICANT OUTCOME: Court cases**

By emphasizing crime scene management and securing evidence the likelihood of suspects going to court, being prosecuted and sentenced becomes much higher. Preliminary reports from a few selected LEAF and ORGFORC trainees had shown over 250 arrests. Of these, 57% were convicted in 2012, but as many as 92% were convicted in 2013 owing to much stronger emphasis on securing evidence and crime scene investigation training.

#### **SIGNIFICANT OUTCOME: Frontline protection of natural resources**

Project ORGFORC works at several different levels, training the judiciary, investigators, and customs officers – but also frontline rangers that enforce the protection of the protected areas and reserves that hold most of the remaining forest. In Tanzania, for example, over 500 enforcement officers and instructors were trained in 2013 alone, up from 75 in 2012. One 30 man unit in one part of Tanzania has made over 254 arrests and seized an estimated 44 assault rifles involved in illegal logging, charcoal production or elephant poaching in the past year. They specifically work with local communities to improve information networks against organized crime.

The following comments were given recently by some of the unit commanders and leaders trained:

*“The training on tracking has had a positive effect in our work. We were losing hope during search of the tracks of poachers and loggers in the field but after tracking training we got some techniques to do some more track search until we get a poacher or arrive at the scene of crime. I welcome more training to me and my people and also at other posts.”*

Commander (Ranger) A, 18/10/2013

*“Right now we are in a forest reserve where there are people doing illegal mining inside the forest. With the tracking knowledge from the training I easily follow their footsteps which leads us to their camps within the reserve and we arrest them as well as destroying their camps and also we are tracking people who cut down trees for timber production which is also illegal”*

Ranger D, 28/10/2013

---

Crime scene management and tracking training by Tanzanian Lead Instructor Ms. Rosemary Kweka at Pasiansi Institute. Ms. Kweka was trained in the programme as a lead instructor and now train hundreds of rangers under the approval of the Tanzanian authorities.



**SIGNIFICANT OUTCOME: Project LEAF takes a lead in combatting environmental crime in two continents**

Under the auspices of INTERPOL's Environmental Crime Programme and project LEAF the Law Enforcement Against Deforestation (LEAD) operation was undertaken with INTERPOL from 17 September to 17 November 2012. LEAD brought together law enforcement agencies to combat forestry crime in Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Paraguay, Peru, and Venezuela. Under the operation, officials carried out inspections and investigations on transport vehicles, retail premises, and individuals, as well as surveillance at ports and transport centres. In the first phase, the seizures of wood and related products were estimated at more than 50,000 m<sup>3</sup> of wood, equivalent to some 2,000 truckloads of timber. The total value of the seized timber is estimated at around USD 8 million. In phase two, approximately 292,000 m<sup>3</sup> of wood was seized, equivalent to around 19,500 truckloads of timber, and valued at USD 39 million.

See: <http://www.interpol.int/News-and-media/News-media-releases/2012/N20120913>

As part of INTERPOL's Project Wisdom and Project LEAF, more than 240 kg of elephant ivory and 856 timber logs were seized and 660 people arrested during an INTERPOL-coordinated operation combating ivory trafficking and illegal logging across Southern and Eastern Africa. Also seized were 20 kg of rhino horns, 302 bags of charcoal, 637 firearms, nearly 2,000 rounds of ammunition, 30 chainsaws, 200 kilos of cannabis and khat, 65 pellets of heroin, 47 animal parts and 44 vehicles. The month-long operation, from 26 September to 26 October 2013, supported by the Wildcat Foundation and the Norwegian Agency for Development Cooperation (NORAD), involved wildlife enforcement officers, forest authorities, park rangers, police and customs officers from five countries - Mozambique, South Africa, Swaziland, Tanzania and Zimbabwe.

See: <http://www.interpol.int/News-and-media/News-media-releases/2013/PR151>

In 2012-2013 three UNEP Rapid Response Assessments on environmental crime were launched, all co-funded by UNEP and donor countries. All received extensive global media coverage and are repeatedly quoted worldwide, including in the UN General Assembly.

*Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the World's Tropical Forests*, was released on 27 September 2012 during World Forestry Week hosted by the FAO in Rome. The report, jointly edited and launched by GRID-Arendal and the INTERPOL Environmental Crime Programme, focuses on the increasingly sophisticated tactics being deployed in illegal logging and identi-

fies options for reducing both deforestation and carbon emissions.<sup>87</sup>

**SIGNIFICANT OUTCOME: Evidence underpinning action**

The UNEP Rapid Response Assessment - Green Carbon, Black Trade revealed that illegal logging has a global value of USD 30-100 billion and is responsible for 50-90% of the deforestation in key tropical countries. In addition, illegal logging represents 8-14% of global CO<sub>2</sub> emissions. Major countries, including Brazil, referenced the report in media when announcing decisions to enhance the effort against organized crime and illegal logging.

Nadia Pontes, <http://www.dw.de/brasil>  
AFP, October 10, 2012

Two more Rapid Response Assessments were produced during the first quarter of 2013. The UNEP report *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*<sup>88</sup> analyzes the scale and scope of the illegal trade in apes and highlights the growing links to sophisticated trans-boundary crime networks, which law enforcement networks are struggling to contain. The report was prepared by GRID-Arendal and the Great Apes Survival Partnership (GRASP). Another report, prepared by GRID-Arendal for UNEP, CITES, IUCN and TRAFFIC, *Elephants in the Dust: The African Elephant Poaching Crisis*,<sup>89</sup> provides an overview of the current state of the African elephant and recommendations for action to ensure its protection. Both reports were launched in early March, at side events at the 16<sup>th</sup> Meeting of the Conference of the Parties of CITES held in Bangkok, Thailand<sup>90</sup> and were intended to influence decisions at the COP.

**SIGNIFICANT OUTCOME: National ivory action plans**

On the very last day of the CITES COP16, an agreement was reached on concrete actions to be taken by a group of eight countries identified as the worst offenders in the illegal ivory trade chain (the supply states Kenya, Tanzania and Uganda; the consumer states China and Thailand; and the transit countries Malaysia, Viet Nam and the Philippines). According to this agreement, the countries are committed to quickly develop national ivory action plans and to take urgent measures to implement and report on these plans. The Whilst the *Elephants in the Dust* report cannot claim attribution for this new policy, it is likely to have been an important resource for raising awareness as it was launched prior to the COP discussions on this issue.

Nadia Pontes, <http://www.dw.de/brasil>  
AFP, October 10, 2012)

87. <http://www.grida.no/regional/news.aspx?id=5313>

88. <http://www.grida.no/publications/rr/apes/>

89. <http://www.grida.no/publications/rr/elephants/>

90. <http://www.unep.org/newscentre/Default.aspx?DocumentID=2708&ArticleID=9434&l=en>

## OTHER AFRICA-RELATED WORK OUTSIDE THE MFA WORK PROGRAMME

### Emerging Environmental Issues

The Africa Programme continues to explore the landscape for emerging and persistent environmental issues that require awareness raising. Three potential topics are under consideration - the influence of environmental resources on the development of Africa's infrastructure, environmental impacts of electronic waste in Africa, and possible impacts of the development of the oil and gas industry in East Africa's Indian Ocean.

A project proposal on the role of environmental resources in the development of Africa's infrastructure was submitted to the African Development Bank following the short-listing of GRID-Arendal to bid for the project along with five other organizations. A decision on the proposal is still pending. Funding from other sources will also be explored.

The extent of electronic waste in Africa is not well documented although there is growing interest by the private sector to find better ways of collecting and reusing the waste. GRID-Arendal will conduct a study on electronic waste in 2014, while also prospecting for large-scale project development under the Environmental Crime portfolio.

Following a request by coastal countries in East Africa, GRID-Arendal and the Nairobi Convention Secretariat have prepared a project proposal on the potential impacts of the development of the oil and gas industry off the Indian Ocean coast in East Africa. Funding options will be explored during the course of 2014.

### FK Exchange

The 2011/12 round of the FK exchange was successfully concluded. While all the six participants benefited from a skills exchange during their posting abroad, it is also worth noting that all were able to undertake very inspiring personal projects in areas such as landslides in Uganda,<sup>91</sup> environmental outreach activities targeting schools in and around Arendal, and development of e-learning products.

## 9.2 EURASIA

### ◆ Chemical safety in ODA countries of EECCA region

Two projects, linked to the UNEP Chemicals Branch, were carried out under a partnership agreement with the International POPs Elimination Network (IPEN). GRID-Arendal coordinated the communication and information

components of the project, while IPEN provided technical and scientific support.

The project on 'Toxic Metals in Children's Products'<sup>92</sup> analysed 569 different children's products, mainly toys, available on the market in 2012 in 6 countries of the EECCA region (Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, and Ukraine).<sup>93</sup> Measurements focused on 6 heavy metals - lead, mercury, arsenic, antimony, cadmium and chromium. Approximately 27% of the products were found to contain at least one toxic metal and 13% contained two or more toxic metals, increasing their potential for harm.



*Samples of toys, contaminated with heavy metals (lead, arsenic, cadmium)*

A media campaign was designed to attract public attention and initiate discussions with concerned audiences. Two sets of outreach activities were organised. The first took place in Moscow from 11-14 December 2012 and involved a press conference at the Journalists Union, a public/live testing on BBC News, and round tables in Moscow Duma, the Mendeleev Institute of the Russian Academy of Sciences and the State Duma. More than 300 media sources published the findings in the 6 project countries. Since then various secondary publications have cited the project results (for example, the Widerøe in-flight magazine in the fall of 2013). In Russia an important outcome was the circulation of the results through the country's largest consumer organization – the Consumers' Union of Russia. The second event was a regional conference in Yerevan, Armenia on 17 December 2012 when representatives from all project stakeholders discussed appropriate policy measures and made recommendations to governments.

92. The project had a total budget of USD160,000 and was jointly (50/50) funded with IPEN.

93. The study was carried out under the auspices of the IPEN, EcoAccord (Russia), the Armenian Women for Health and Healthy Environment, MAM-86 (Ukraine), the Centre for Environmental Solutions (Belarus), Independent Environmental Expertise (Kyrgyzstan), Greenwomen (Kazakhstan), and GRID-Arendal.

91. <http://www.grida.no/africa/focus2.aspx?id=5322>



The full communication paper, *Toxic Metals in Children's products: An Insight into the Market in Eastern Europe, the Caucasus and Central Asia*<sup>94</sup> was launched at a side-event during simultaneous COPs of the chemicals conventions in May 2013.<sup>95</sup> The side-event was well attended and contributed to raising awareness of the presence of hazardous substances in children's products and the potential harmful effects of heavy metals.

#### **SIGNIFICANT OUTCOME: Toxic metals in children's products**

This project has made a huge impact in the pilot countries. The results provided information to consumers, who could start making informed choices for their children. An NGO campaign for 'No Toxic Toys' collected more than 1000 signatures in support of safe toys. The project stimulated dialogue with national regulators in the EECCA, as well as initiating processes for policy development and increased monitoring of producers and retailers in the region.

While policy changes cannot be directly attributed to single projects or publications, it is reasonable to conclude that the findings of the 'Toxic Metals in Children's Products' project may have influenced certain recent decisions: toy safety policies are now being incorporated in existing national strategies such as the Strategic Approach for Integrated Chemical Management (SAICM) and the Children Environment and Health Action Plan in Europe (CEHAPE). Toy safety standards in the EU were amended in July 2013. Nineteen elements will now be banned instead of the current 8, including Chromium and Cobalt as proposed in the study.

The longer term impacts which the project aspires to are that:

- responsible policies on chemical safety of consumer products are developed;
- health risks to children from toxic metals in consumer products are reduced; and
- toxic substances are entirely banned in children's products in the 6 pilot countries, and the practice is extended to the whole EECCA region.

94. <http://www.grida.no/publications/toxic-metals/>

95. The eleventh meeting of the Conference of the Parties to the Basel Convention (BC COP-11), the sixth meeting of the Conference of the Parties to the Rotterdam Convention (RC COP-6), the sixth meeting of the Conference of the Parties to the Stockholm Convention (SC COP-6) and the second simultaneous extraordinary meetings of the three conferences of the parties to the three conventions (ExCOPs-2) <http://synergies.pops.int/2013COPsExCOPs/Overview/tabid/2914/mctl/ViewDetails/EventModID/9163/EventID/297/xmid/9411/language/en-US/Default.aspx>



*Surveying residents for the use of mercury-containing devices in households.*



*Sampling for mercury in the industrial waste site in Tajikistan.*

The second project with IPEN was entitled 'Improvement of the environmental policy of Tajikistan in order to reduce mercury pollution and improve human health'. The Foundation for the Support of Civil Initiatives, Tajikistan, was a third partner in this project.<sup>96</sup>

The project undertook a laboratory evaluation of the sources of mercury emissions in the mining industry in the Sogd province of Tajikistan, provided technical assistance to 5 hospitals and capacity building for 130 staff in the cities of Dushanbe and Vahdat. It also set up collection points for mercury waste from households, organized the exchange of conventional mercury lamps for energy saving ones, and instructed 250 people on the collection of the hazardous waste.

A national conference 'Strengthening environmental policies to reduce mercury pollution and human health in Tajikistan' was held on 18 June 2013 in Dushanbe, where the outcomes of the project were discussed at national

96. The total project budget was USD 55,000

level. The results were subsequently presented and used in a national policy seminar on December 12, 2013, headed by the Chairman of the Environmental Commission of the Parliament of Tajikistan Mr. Makhmadsharaf Khakdodov. He acknowledged that the project has contributed to forming the position of Tajikistan towards the Minamata Convention. The project also featured on the main public television channel and in several newspapers.

Two outreach publications: *Mercury: Time to Act*<sup>97</sup> and *Mercury: Acting Now*,<sup>98</sup> explaining the urgency of the global action on mercury have been developed on the request of the UNEP Chemicals Branch. They made a significant impact on the outcome of the last round of the negotiations on the Global treaty on mercury, which has culminated in the formal adoption of the Minamata Convention on Mercury as the international law in October of 2013. As of today 94 countries have signed the convention and 1 has already ratified it.

#### **SIGNIFICANT OUTCOME: Reported on the impact of two mercury publications**

Extract from a message received from Tim Kasten, Deputy Director DTIE (former Chemicals Branch Head) UNEP

“The publication “Mercury: Time to Act” was an important contribution for governments as they embarked on the conclusions of the negotiations on the Minamata Convention on Mercury in January 2013. The technical information in the publication was presented using attractive illustrations and layouts thereby displaying clear and precise information on mercury sources, environment and human effects of mercury pollution, and possible actions to reduce mercury emissions and releases.

Its sequel “Mercury: Acting Now!” formed an integral part of the information package at the Diplomatic Conference, where 92 Parties signed the Convention. The Publication demonstrated how the UNEP Global Mercury Partnership has supported governments in addressing the key issues of the Minamata Convention on Mercury. Providing such concrete examples of what is possible demonstrated the importance to countries of the early ratification of the convention.

I have received positive feedback from many governments and other stakeholders on the two publications which UNEP developed with the support of GRID-Arendal.”

21 January 2014

#### **SIGNIFICANT OUTCOME: Influencing the environmental policy of Tajikistan to reduce mercury pollution**

Extract from a letter received from Mr. A.S. Mirzoyev, Chief Sanitary Physician, Deputy Minister of Health Protection

*“On behalf of the Ministry of Health Protection of the Republic we express gratitude to the executors of the project for the responsible, active performance aimed at the protection of health of the population of the Republic [of Tajikistan] from mercury contamination.”*

1 July 2013

Extract from a letter received from Mr A. Dzhuraev, Director of the National Centre for the Stockholm Convention on POPs and Chairman of the Environment Agency, Dushanbe

*“The project made a major contribution to the implementation of the government decision on the collection and disposal of waste mercury-containing lamps. It has stimulated the creation of special collection points for waste lamps in Dushanbe, provided with incentives for the replacement of mercury-containing lamps with energy-efficient lamps. It has also created policy improvements by facilitating the approval of tariffs for waste lamps at the city landfill by the Antimonopoly Committee. Suggestions and recommendations of the project will be included in the updated version of the National Action plan for Stockholm Convention due to be completed in 2014.”*

26 September 2013

At the request of the Chemicals Branch of the UNEP Division of Technology, Industry and Economics, GRID-Arendal and Zoï Environment Network have started developing a GEF proposal ‘Development of mercury inventory and national mercury management approach in Belarus, Ukraine and Kazakhstan’. Partners have conducted a feasibility study of the sources of mercury contamination in the three countries, and the Project Identification Form (PIF) for a medium-size GEF project<sup>99</sup> has been prepared with the national beneficiaries<sup>100</sup> and submitted by UNEP to the GEF Secretariat. The project has been fully endorsed by the three governments.

97. <http://www.grida.no/publications/mercury/>

98. <http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/Publications/Mercury%20Acting%20Now.pdf>

99. The project costs are USD 1.05 million spread over 2 years

100. Ministry of Natural Resources and Environmental Protection of the Republic of Belarus; Ministry of Environmental Protection of the Republic of Kazakhstan; Ministry of Ecology and Natural Resources of Ukraine

## ◆ Support to the Interim Secretariat of the Tehran Convention

### Support to the Teheran Convention

For the last three years GRID-Arendal has supported the Tehran Convention through providing staff to the Interim Secretariat, supporting regional assessments and conducting the Caspian Sea State of the Environment (SoE) report adopted by the Third Conference of the Parties (COP3) in Aktau in 2011. The Caspian SoE was finalized and circulated in 2012.

During this biennium, the Interim Secretariat assisted with the preparations for COP4 held in Moscow in 2012 and with the Protocol on the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities which was finalized and adopted at COP4. The Secretariat also supported preparations for:

- additional protocols on the Protection of Biological Diversity and on Environmental Impact Assessment in a Trans-boundary Context;
- the implementation strategy of the Aktau oil spill protocol;
- National Convention Action Plans and Public Participation strategies; and
- COP5 to be held in 2014 in Ashgabat, Turkmenistan.

### Caspian Environmental Information Center (CEIC)

The web-based CEIC, designed by GRID-Arendal, serves as a communication tool for the Secretariat of the Tehran Convention and aims to provide reliable and high-quality data and information for regular SoE reporting of the Caspian Sea.<sup>101</sup>

The CEIC concept was developed within the framework of the Tehran Convention and presented to country delegations in March 2012. National Environmental Infor-

mation Officers (EIOs) were subsequently appointed. It was agreed that the European Environment Agency (EEA) would provide support in training of EIOs and assist in the integration of the CEIC into the EIONET.<sup>102</sup> In addition, in April 2012, GRID-Arendal entered into an agreement with BP and its co-venturers to establish the web-based CEIC.<sup>103</sup>

Two hands-on workshops held in October 2012 at the EEA and at GRID-Arendal, exposed participants from 5 Caspian states to European methods of environmental information management and to all technical aspects of the operation of the CEIC. The CEIC was subsequently launched and demonstrated at COP4 in December 2012. It was welcomed and formally established by the Ministers, High-level officials and other conference participants as “the thesaurus of data and information submitted and collected in the context of the implementation of the Tehran Convention and its protocols”.<sup>104</sup>

In 2013 the portal was upgraded from a pilot to a fully-functional web resource housing reports, national action plans, aggregated data, and scientific and legal documents for environmental issues and activities within the Caspian region. It also provides a directory of all relevant government-affiliated organizations and public participation. The proposal for the next phase of CEIC development has been prepared and submitted to BP Caspian. Positive signals have been received from their headquarters, that the project will be funded.

101. <http://www.kaspinform.com/node/749>

102. EIONET is a partnership network of the EEA and its member and cooperating countries involving approximately 1000 experts and more than 350 national institutions. The network supports the collection and organisation of data and the development and dissemination of information concerning Europe's environment, following EEA's methodology for 'Shared Environmental Information Systems' (SEIS).

103. <http://www.bp.com/genericarticle.do?categoryId=9006615&contentId=7074558>

104. <http://www.tehranconvention.org/spip.php?article63>, paragraph 15



*The Protocol on the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities was finalized and adopted at COP4 in Moscow in 2012.*



## ◆ Transboundary waters resource management (TWRM): development of information systems and policies supporting the transboundary governance of shared water bodies in ODA countries of Eastern Europe

### Lake Drukšiai/Drisviaty Basin Management Programme

The transboundary water basin of Drukšiai/Drisviaty Lake is shared by three countries: Lithuania, Belarus and Latvia. It has international and local importance as it is a part of the national park, protected nature reserves and NATURA 2000 network sites, which are fully or partly protected by national laws. At the same time the basin is an environmental and security hot spot of high concern, especially in the region of Ignalina Nuclear Power Plant (NPP) with its nuclear waste storage and repository facilities and the newly proposed Visaginas NPP. In addition, the national boundaries represent barriers for co-operation, implementation of a basin-wide approach and integration of various water management aspects.

GRID-Arendal, together with the Regional Environmental Centre for Central and Eastern Europe (REC) in Hungary, has been managing the project since 2009. The REC is mainly responsible for the content management of the Basin Analysis Report, whereas GRID-Arendal is responsible for the overall project management, preparation and facilitation of capacity building events and the GeoIQ tool development and maintenance.

In 2012, an official Drukšiai/Drisviaty Lake Basin Management Programme (DLB MP) Website and mapping application was launched<sup>105</sup> with the GeoIQ information management tool integrated into the site.<sup>106</sup> The tool has been shared with all three basin countries and is intended to stimulate information exchange between the stakeholders (governments, academia, and NGOs) of the basin. As system administrators, GRID-Arendal can see that the site has been used for the creation and analysis of maps and datasets. As a spin-off from the Basin Analysis Report (currently in draft form) new data are now available (pollution sources, ground water status and more) for the transboundary region, which will be uploaded as maps on the DLB GeoIQ tool for future use by stakeholders.

105. <http://enrin.grida.no/druksiai/>

106. <http://enrin.grida.no/druksiai/maps.aspx>. More maps can be reviewed in the GeoIQ tool at <http://finder.geoiq.grida.no/search?model=&query=DLB>

Two international workshops were held during 2013 within the framework of the DLB MP, on 'Monitoring of surface and groundwater status and protected areas' and on 'Implementing the economic aspects of the European Union Water Framework Directive (EU WFD)'. The former included participants from 8 European countries,<sup>107</sup> whilst the latter, which was co-organised with the REC, specifically targeted participants from the three basin countries.



*Training workshop on: "Implementing the Economic Aspects of the Water Framework Directive (WFD)" in Vilnius, Lithuania on 23rd of May.*

The Basin Analysis Report has been drafted, based on the work of experts from the three basin countries. Carried out in accordance with EU WFD requirements, the report evaluates the basin's environmental, social and economic status, including issues related to nuclear safety, and provides recommendations for the further, sound development of integrated water resource management. It has enhanced water resource assessment and reporting systems in the basin countries, improved collaboration between competent authorities, and raised awareness and public participation regarding EU water policies. However, the project has had to be halted, until the transfer of allocated funds is resumed by UNOPS/UNEP.

### Dniester River Basin

The Dniester River basin, shared by Moldova and Ukraine, is the fifth largest transboundary basin in the Black Sea region. Working jointly with Zöi Environment Network, GRID-Arendal has been involved since 2006 in strengthening cooperation between Moldova and Ukraine on common environmental issues in the basin. GRID-Arendal has been managing the Information Working Group of Dniester projects, and assisting the two governments in the development and negotiations of the Dniester Treaty, signed on 29 November 2012.

107. Belarus, Lithuania, Latvia, Ukraine, Slovakia, Hungary, Austria, Norway

**SIGNIFICANT OUTCOME: Broader international co-operation on the environmental management of the Dniester River Basin**

The achievements of the Dniester projects include improved cooperation and coordination between health authorities in the region responsible for the quality of drinking water, establishment of transboundary cooperation on biodiversity including the management of fish stocks, improved sharing and management of information on the basin, and increased awareness among stakeholders and the public about the value of the water resources in the Dniester Basin and the threats they face. An on-going component aims to reduce vulnerability to floods. GRID-Arendal's substantive contribution has included the development of the 'Geoportal of the Dniester River Basin' and production of the Environmental Atlas launched in December 2012.

See <http://dniester.grida.no/en/about-geoportal> and <http://dniester.grida.no/en/events/82-latest-news>

**OTHER EURASIA WORK**

**Integrated Environmental Assessment of Lake Sevan, Armenia**

As part of the 2011 Work Programme funded by MFA, an Integrated Environmental Assessment of Lake Sevan, Armenia, was carried out in collaboration with the Association for Sustainable Human Development in Yerevan. The comprehensive assessment of the current ecological status and trends of the lake was completed in early 2012 and its results summarized in the report, '*Integrated assessment of ecological state of Lake Sevan*' in Russian, with a summary in English and Armenian.

**SIGNIFICANT OUTCOME: Steps towards improving the ecology of Lake Sevan**

Options for the improvement of the ecological balance of the lake were submitted to the Ministry of Nature Protection, the Commission on Lake Sevan of the National Academy of Sciences and the Presidential Commission on Lake Sevan. Some of the proposals were included in the Programme of Work of the Commission on the Lake Sevan for 2012. For example, a Ministerial order (N5-A, 18.01.2012) for the establishment of a special joint working group of representatives from the Ministry of Operations and the public environmental coalition to investigate the impact of the GeoProMining Gold company on the water quality in the lake was issued based on the recommendations of the report.

**Climate Change and Security in Eastern Europe, Central Asia and the Southern Caucasus**

In September 2013 GRID-Arendal signed a Small Scale Funding Agreement for the project on 'Climate change and security in Eastern Europe, Central Asia and the Southern Caucasus'.<sup>108</sup> The project will contribute to the Environment and Security Initiative (ENVSEC) under UNEP's Subprogramme 2: Disasters and Conflicts. Project objectives include: enhanced understanding and awareness of climate change as a security challenge and the consequent need for regional and transboundary cooperation on adaptation in the three regions (Eastern Europe, Southern Caucasus and Central Asia); enhanced national and local stakeholders' capacity to anticipate, prevent and mitigate potential security risks resulting from climate change.

♦ **Linking Tourism and Conservation (LT&C) (only 2012)**

This project intends to map the cases, in particular in developing countries, where tourism - financially, politically or through education – contributes to the establishment and management of protected areas. The project supports the Convention of Biological Diversity (CBD) and the Global Partnership for Sustainable Tourism (GPST), which UNEP, UNESCO and UNWTO are developing. As a result of a global survey the catalogue of positive LT&C cases has expanded. The next challenge is to identify from these cases the incentives and mechanisms that could be replicated in other parts of the (developing) world. The project featured prominently during the GPST annual conference in March 2012 in South Korea where 'Communication' was the main theme of the agenda.

**9.3 GREEN ECONOMY (ONLY 2012)**

♦ **Capacity building on Payments for Ecosystem Services (PES) for ODA countries**

Based on GRID-Arendal's publication "Vital Graphics on Payment for Ecosystem Services - Realizing Nature's Value" (<http://www.grida.no/publications/vg/pes/>) a spin-off promotional video clip has been developed in partnership with the James Hutton Institute (UK). It has been put on the Valuing Nature Networks (VNN) website (<http://www.valuing-nature.net/news/2013/james-hutton>

108. The total project cost is USD 280,000. External funding of USD 160,000 will be received from UNEP ROE. Co-funding of USD 120,000 will be required from the MFA 2014 budget.



*cartoon-payment-ecosystem-services*) and reported to be used as teaching material. It has generated more than a 1,000 views on YouTube (<http://www.youtube.com/watch?v=gzNWNREZ2xl&feature=share&list=UUB2PfWp-S9y35luR3rrn-ZQ>) in 2 months.

The decision was taken to link PES capacity development to the HICAP project and re-focus it to South Asia (Nepal

in order to produce synergies and use the resources more efficiently.

Currently a cookbook in Payment for Ecosystem Services in Mountains and Low Lands in South Asia under the component on ecosystems is in work. Field mission has been conducted in 2013 for data collection. The cookbook is due in 2014.

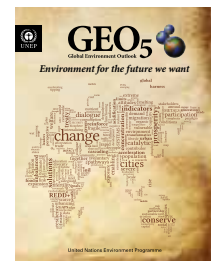
# 10 Communication and outreach

## 10.1 ENHANCE THE IMPACT OF UNEP WORK THROUGH COMMUNICATIONS AND OUTREACH PRODUCTS; ORGANISE OUTREACH EVENTS; FACILITATE LECTURES; PROVIDE TECHNICAL AND PUBLICATION SERVICES

### UNEP publications produced and disseminated

During 2012-2013 GRID-Arendal facilitated the production of a range of UNEP reports in both printed and digital (PDF and e-book) formats. Some of these publications are available in alternative language versions. Many of the publications have been further described under relevant sections of the Work Programme.

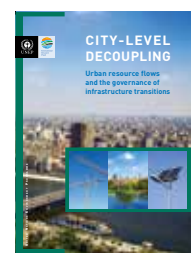
- UNEP's flagship **Global Environment Outlook-5 (GEO-5)**<sup>109</sup> report was launched on World Environment Day in June 2012 in Rio de Janeiro, on the eve of Rio+20. GRID-Arendal undertook major responsibility for the production of the full, 528-page, English version of the report and of the Summary for Policy Makers (SPM) in all six official UN languages.<sup>110</sup> This involved the preparation of complex maps and graphics and the professional and accurate layout of all versions in hardcopy (print) and electronic formats (pdfs on USB drive and as an e-book). The SPM was launched prior to the full report at the meeting of UNEP's Governing Council in February 2012.



- The **Dniester Atlas**<sup>111</sup> was launched on 29 November 2012 in conjunction with the signing of the bilateral Treaty on Cooperation on the Conservation and Sustainable Development of the Dniester River Basin by the Minister of Environment of the Republic of Moldova, Mr. Gheorge Salaru, and the Minister of Ecology and Natural Resources of Ukraine, Mr. Eduard Stavtyskyi. The event took place at the Italian Parliament during the Meeting of the Parties to the United Nations Economic Commission for Europe (UNECE)<sup>112</sup> Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention).<sup>113</sup>



- A package of public material related to the report **City-Level Decoupling: Urban Resource Flows and the Governance of Infrastructure Transitions**<sup>114</sup> by UNEP's International Resource Panel (IRP) was developed by GRID-Arendal. The package included professional and accessible versions of the full report, the SPM, the Case Studies, a fact sheet and a set of postcards in hardcopy (print) and electronic formats (pdfs and as an e-book). This is the first of four IRP reports that that will be converted into attractive, appropriate material and media that are accessible and tailored to the target groups.



109. <http://www.unep.org/geo/geo5.asp>

110. Arabic, Chinese, English, French, Russian and Spanish

111. <http://www.grida.no/publications/dniester-river-atlas/>

112. <http://www.unece.org/>

113. <http://www.unece.org/env/water/text/text.html>

114. <http://www.unep.org/resourcepanel/Publications/CityLevelDecoupling/tabid/106135/Default.aspx>

- **Mercury: Time to Act**<sup>115</sup> was released a few days ahead of the final negotiations on the new mercury treaty at the International Negotiating Committee on Mercury (INC5) held in Geneva in January 2013. It provided brief, up-to-date background information as an advocacy piece towards action on mercury management and control, providing governments and civil society with the rationale and imperative to act on this notorious pollutant. The publication was commissioned by the UNEP Chemicals Branch in Geneva and prepared in partnership with Zöi Environment.



- **Mercury: Acting Now**<sup>116</sup> shows national policy and decision makers how the work of the UNEP Global Mercury Partnership contributes to the implementation of the Minamata Convention on Mercury. The brochure was presented at the Conference of Plenipotentiaries on the Minamata Convention on Mercury that was held in Minamata and Kumamoto, Japan in October 2013



- **Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans**<sup>117</sup> and **Elephants in the Dust: The African Elephant Poaching Crisis**<sup>118</sup> are Rapid Response Assessments (RRAs) released at side events of COP 16 of the Convention on the Illegal Trade in Endangered Species (CITES) held in Bangkok in March 2013. While *Stolen Apes* examines the illegal trade in apes and highlights the growing links to sophisticated trans-boundary crime networks, *Elephants in the Dust* provides an overview of the current state of the African elephant and recommendations for action to ensure its protection. Both reports are available in English and French.



- **Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the World's Tropical Forests**<sup>119</sup> is an RRA released on 27 September 2012 during World Forestry Week hosted in Rome. The report, jointly edited by GRID-Arendal and INTERPOL, focuses on the tactics being deployed in illegal logging and options for reducing both deforestation and carbon emissions.<sup>120</sup> The report is available in English, French and Spanish.



- **Food Lost, Food Waste**, an RRA report, examines the role of ecosystem services in food provisioning and how ecosystem based management approaches can avert food loss and waste. The report will be released in 2014.

- **Green Economy in a Blue World**<sup>121</sup> analyzes how key sectors linked with the marine and coastal environment – the Blue World – can transition towards a Green Economy, simultaneously benefiting coastal communities and ocean-linked industries. Links between shipping, fisheries, tourism, marine-based renewable energies and agriculture are all explored. The synthesis report was launched at the 3rd Intergovernmental Review Panel of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities held in Manila, January 2012. The full report was completed in August 2012.



115. <http://www.grida.no/publications/mercury/>

116. <http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/Publications/Mercury%20Acting%20Now.pdf>

117. <http://www.grida.no/publications/rr/apes/>

118. <http://www.grida.no/publications/rr/elephants/>

119. <http://www.grida.no/publications/rr/green-carbon-black-trade/>

120. <http://www.grida.no/regional/news.aspx?id=5313>

121. <http://www.grida.no/publications/green-economy-blue-world/>

- **Green Economy: An Analysis of Challenges and Opportunities for Small Island Developing States**<sup>122</sup> highlights important issues in selected sectors of particular relevance to SIDS with respect to the Green Economy, and provides SIDS-focused policy recommendations. The report was launched in December 2012 at COP7 of the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region.



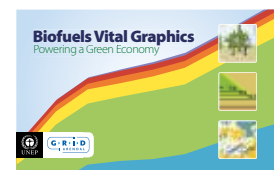
- **State of the Mediterranean Marine and Coastal Environment Report**<sup>123</sup> provides information on Mediterranean ecosystems and identifies pressures affecting the state of the Mediterranean environment. It also offers insight into the vital ecosystem services provided by coastal and marine habitats. The report was launched by UNEP's Coordinating Unit for the Mediterranean Action Plan (UNEP/MAP) and UNDP in January 2013 in Ankara, Turkey.



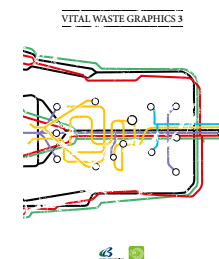
- **Changing Taiga: Challenges to Mongolia's Reindeer Herders**<sup>124</sup> highlights some of the main environmental issues and challenges facing Mongolia's remaining reindeer herders. The Mongolian edition of this UNEP report was presented by Rigmor Aasrud, Minister of Government Administration, Reform and Church Affairs of Norway, to Tsakhiagiin Elbegdorj, President of Mongolia, at a seminar in conjunction with the Mongolia - Norway Business Forum on 8 October 2012 in Oslo.



- **Biofuels Vital Graphics**<sup>125</sup> was presented by UNEP at the Global Rollout of the International Year of Sustainable Energy for All at the World Future Energy Summit in Abu Dhabi, UAE on 16 January 2012. The report visualizes the opportunities, the need for safeguards, and the options that help ensure sustainability of biofuels to make them a cornerstone for a Green Economy.



- **Vital Waste Graphics 3**<sup>126</sup> focuses on global trends on waste and sheds light on the obstacles that prevent the practical implementation of policies to promote waste minimization, recycling and resource recovery. The report was prepared for the Basel Convention and released in June 2012.



- **Vital Graphics on Payment for Ecosystem Services - Realising Nature's Value**<sup>127</sup> highlights the concept and selected market segments relating to payments for ecosystem services, emphasising the role natural capital plays in both environmental conservation and poverty alleviation. It was launched at the 5th Annual International Ecosystem Services Partnership Conference held in Portland, Oregon in July 2012.



122. <http://www.grida.no/publications/sids-green-economy/>

123. <http://www.grida.no/publications/med/>

124. <http://www.grida.no/publications/pot/changing-taiga/>

125. <http://www.grida.no/publications/vg/biofuels/>

126. <http://www.grida.no/publications/vg/waste3/>

127. <http://www.grida.no/publications/vg/pes/>

- **Vital Ozone Graphics 3 - Third edition - 25<sup>th</sup> Anniversary of the Montreal Protocol**<sup>128</sup> sheds light on the decisions taken by the Parties to the Montreal Protocol to accelerate the phase out of hydrochlorofluorocarbons (HCFCs) and the implications this has on the use of replacement chemicals. This revised edition of Vital Ozone Graphics was launched on the 25th anniversary of the Montreal Protocol in September 2012 and is available in English & French.



- GRID-Arendal and UNEP collaborated on a package of **Short-lived Climate Pollutants (SLCPs) Vital Graphics** to support UNEP's activities in the Climate Clean Air Coalition (CCAC). The CCAC is a partnership of governments, intergovernmental organizations, and civil society that is committed to accelerating action to address key SLCPs, such as black carbon. The publication explains the need for urgent action, and explores a range of solutions. GRID-Arendal's final output will be ready in January 2014.

- GRID-Arendal staff contributed as co-authors to the chapter **The View from the Top: Searching for responses to a rapidly changing Arctic**<sup>129</sup> of the UNEP Year Book 2013: Emerging issues in our global environment.<sup>130</sup> The 2013 Year Book was released by UNEP's Executive Director during the opening press conference of the First Universal Session of the UNEP Governing Council/Global Ministerial Environment Forum on 18 February 2013. The report is also being turned into an interactive e-book to be available in tablet, phone and web formats for increased visibility and a user-friendly interface.



#### Other 2012-13 publications not directly linked to UNEP

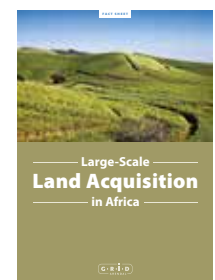
- **Toxic Metals in Children's Products: An Insight into the Market in Eastern Europe, the Caucasus and Central Asia**<sup>131</sup> was released in May 2013 during the ordinary and extraordinary meetings of the conferences of the parties to the Basel, Rotterdam and Stockholm conventions held in Geneva, Switzerland. The report presents the findings of a study that tested the toxic contents in hundreds of toys and consumer products, and is available in English and Russian.



- **The last straw? The additional burden of climate change on food security in the Hindu Kush-Himalaya**<sup>132</sup> is a brief produced in November 2013 as part of the Himalayan Climate Change Adaptation Programme (HICAP). A full length report on food security in the Hindu Kush-Himalaya will be released in 2014.



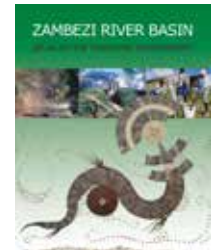
- **Large-Scale Land Acquisition in Africa**<sup>133</sup> is a fact sheet produced in June 2013 by GRID-Arendal in collaboration with partners to highlight some of the key perspectives of a topical issue that may merit further attention.



128. <http://www.grida.no/publications/vg/ozone3/>  
 129. [http://www.unep.org/yearbook/2013/pdf/View\\_from\\_the\\_top\\_new.pdf](http://www.unep.org/yearbook/2013/pdf/View_from_the_top_new.pdf)  
 130. <http://www.unep.org/yearbook/2013/>  
 131. <http://www.grida.no/publications/toxic-metals/>  
 132. <http://www.grida.no/publications/last-straw/>  
 133. <http://www.grida.no/publications/land-acquisition/>



- **Zambia Atlas of Our Changing Environment** aims to provide credible evidence of changes and propose appropriate measures to prevent, manage and/or mitigate adverse impacts. It is also designed to strengthen Integrated Environmental Assessment and Reporting processes by linking the atlas to the Zambia Environment Outlook (ZEO) 4 report and environmental indicators.
- **Zambezi River Basin: Atlas of the Changing Environment**<sup>134</sup> provides evidence of changes that are taking place in the natural resources and environment of the Zambezi River Basin. Climate change is a common theme that runs through the Atlas. Produced through a Basin-wide collaborative initiative during 2012, the Atlas was launched in May 2013 at the Annual Water Ministers Meeting of the Southern African Development Community (SADC) and in August 2013 at the UN World Tourism Organization General Assembly.
- **Deep Sea Minerals**<sup>135</sup> is a report series that collates information on multiple aspects of deep sea mineral exploration and extraction and provides a green economy context for examining how deep sea mining could be profitable, sustainable and meet the needs of Pacific Island people without sacrificing cultural heritage, community values or the health of ocean ecosystems. The series, involving a network of some 60 experts, has been compiled as part of the EU funded project 'Deep Sea Minerals in the Pacific Islands Region: a Legal and Fiscal Framework for Sustainable Resource Management'.
- **Seafloor Geomorphology as Benthic Habitat: GeoHAB Atlas of Seafloor Geomorphic Features and Benthic Habitats**<sup>136</sup> was produced by the international GeoHab consortium (www.geohab.org) as a guide for decision-makers working in marine conservation (e.g. design of marine protected areas) to mitigate anthropogenic threats to ocean health. The book contains 57 case studies from around the world representing a range of habitats where detailed bathymetric maps have been combined with seabed video and sampling to yield an integrated picture of the benthic communities that are associated with different types of habitat. The final chapter examines critical knowledge gaps and future directions for benthic habitat mapping research. Published by Elsevier in 2012.



134. <http://www.grida.no/publications/zambezi/>

135. <http://www.grida.no/publications/deep-sea-minerals/>

136. Book available at: <http://store.elsevier.com/product.jsp?isbn=9780123851406>

Some GRID-Arendal staff also contributed on an individual basis to other papers and publications.

#### New products and tools piloted and mainstreamed in UNEP's portfolio

- **Clean Energy Postcards** is a collection of 12 postcards featuring facts, figures and trends on clean energy. The postcards are intended to serve as a quick and easily accessible source of information for the general public, journalists, NGOs and policy-makers worldwide, enabling them to easily grasp and communicate effectively on clean energy. The postcards were launched at the UNFCCC COP18 in Doha in December 2012. The Energy Branch of UNEP DTIE has now included postcards in its communication strategy.
- GRID-Arendal and UNEP are developing innovative ways for Member States and other stakeholders to access environmental information interactively. These are being piloted through the tenth anniversary edition of the UNEP Year Book series, **UNEP Year Book 2014: Revisiting emerging issues in our changing environment**, which will use the GRID-Arendal e-book platform as well as piloting the iPad iBook platform as a distribution method. These innovative tools will be launched at the United Nations Environment Assembly of UNEP (UNEA) in June 2014.

#### Building communications capacity among UNEP staff and beyond

- Two members of GRID-Arendal's Communication Team travelled to Nairobi in February 2012 to give a

training course for UNEP DEWA and DCPI staff on e-book production. During 2013, DEWA staff received training on Word Press for the Blue Carbon portal,<sup>137</sup> which is part of the Blue Carbon Initiative.

- In 2013 GRID-Arendal signed a three-year partnership agreement with the University of Bologna under which GRID-Arendal staff will provide training on cartography and other topics, as well as internship opportunities at GRID-Arendal for advanced cartography students. The first training workshop in cartography was held in November 2013.

### Outreach programmes and awareness-raising with UNEP and beyond

- As part of the collaboration with UNEP on a comprehensive outreach strategy for GEO-5, GRID-Arendal developed several outreach tools as well as implementing specific outreach activities:
  - a video/curtain raiser that was used at the launch of the GEO-5 report in June 2012;
  - a targeted report for local authorities, working closely with UNEP and ICLEI;
  - a comprehensive outreach and capacity development strategy for the regions – to inform on GEO-5 findings and to build capacity in using these findings.

In addition, GRID-Arendal organized the Norway launch of GEO-5 in Oslo on 7 June 2012.

- During 2012 and 2013, GRID-Arendal has further developed the use of **videos** for communicating environmental information and messages:
  - The film *Status and Trends in Arctic Biodiversity*<sup>138</sup> based on the findings of the 2010 Arctic Biodiversity Trends report, was produced for the CAFF Working Group. It emphasizes the new challenges brought about by climate change and the increase of industrial activities in the region, and includes interviews with the President of Iceland, prominent scientists, indigenous peoples, and fishermen. Released in April 2013 during the biggest gathering of polar scientists of 2012, the International Polar Year 2012 Conference ‘From Knowledge to Action’, the film subsequently won the 2013 documentary award of the Green Lens Environmental Film Festival - an annual competition sponsored by the Northern Illinois University’s Institute for the Study of the Environment, Sustainability and Energy.
  - In collaboration with the University of the Arctic, GRID-Arendal initiated the *Snowy Owl Talks series*<sup>139</sup> addressing specific topics about the North to create awareness and promote discussion on contemporary issues. The main target audience for these videos is students.

- Videos were also produced on the *Blue Carbon Demonstration Project*<sup>140</sup> and *Payments for Ecosystem Services*,<sup>141</sup> and a HICAP video teaser entitled *Scaling Mountains, Gaining Heights*<sup>142</sup> presented concerns from women environmental leaders on gendered differences to climate change adaptation.
- Two film producers visited GRID-Arendal to collect footage for a documentary on methane hydrates that will be released on ARTE TV in Europe, the Canadian Broadcasting Corporation in Canada and in the US. An interview with the Head of the Marine Division will feature in the documentary. The documentary is set for release in early 2014.

- The *Many Strong Voices (MSV)* programme launched a new website<sup>143</sup> with the technical design provided in-house. The website gives access to peer-reviewed articles and publications on the themes of climate change and SIDS, community-based adaptation, and disaster risk management in island contexts. It also serves as the e-portal for the *Portraits of Resilience*<sup>144</sup> photography project, which trains youth and schools in the Arctic and SIDS in the use of photography and other digital media to bring personal stories and faces to the attention of the general public and to decision makers at international climate change negotiations.
- MSV also took the opportunity to raise awareness at UNFCCC COP19 in November 2013. The *‘Portraits of Resilience’* photo exhibition opened on 18 November 2013 at the State Ethnographic Museum in Warsaw. The exhibition, which was a collaboration between GoNorth! Adventure Learning and MSV, featured the work of young photographers in Chukotka (Russia), the Canadian Arctic, Seychelles, Tuvalu and the Marshall Islands. On the same day, MSV held a *Global Consultation on Climate-induced Displacement and Relocation* with affected peoples - as well as with civil society representatives, researchers and policymakers – to identify community needs as a means to develop appropriate tools and resources to assist such communities in their relocation efforts and to participate in decision-making processes at national and international levels.
- GRID-Arendal collaborated in another side event at the UNFCCC COP19 - *Adaptation without Borders: Building Cooperation for Resilient Regions* - in which a high level panel called on COP19 delegates and global development partners to protect vital mountain ecosystems, to support adaptation programmes in the mountains for improved livelihoods and sustainability, and to create incentives to enhance the benefits mountain people derive from conserving their ecosystems.

137. <http://bluecarbonportal.org/>

138. <http://www.youtube.com/watch?v=ydGhSUKSGII>

139. <http://www.grida.no/polar/activities/5671.aspx>

140. <http://vimeo.com/channels/bluecarbon>

141. <http://www.grida.no/news/default/5821.aspx>

142. <http://vimeo.com/78910631>

143. <http://www.manystrongvoices.org/>

144. <http://www.manystrongvoices.org/portraits/>

- GRID-Arendal participated in the 10th Meeting of the Conference of the Parties to the Abidjan Convention (COP10) in November 2012. The theme of the COP10 meeting was 'Financing Marine and Coastal Environmental Management projects in Africa'. GRID-Arendal presented its **Sustainable Seas Programme** and organized a side event focussed on **Areas Beyond National Jurisdiction**.
- During 2013, GRID-Arendal produced a **package of communication and outreach products and services for the Abu Dhabi Blue Carbon Demonstration Project**.<sup>145</sup> These included: an AGEDI brochure, an infographic factsheet, a project flyer (in English and Arabic), an infographic edible postcard, a project description video, a newsletter, editorials and a series of presentation materials. GRID-Arendal also facilitated the updating of the Blue Carbon website<sup>146</sup> with social media integration and the setting up of the Blue Carbon Vimeo channel.
- In October 2013 GRID-Arendal was invited by UNEP to present lessons learned in developing the **Blue Forests Project FSP** and in implementing the **Abu Dhabi Blue Carbon Demonstration Project** at the 7<sup>th</sup> Biennial GEF International Waters Conference (IWC7).<sup>147</sup> GRID-Arendal also facilitated the **Targeted Workshop on Economic Valuation** for GEF IW Project Managers and Agencies at IWC7.
- The **Abu Dhabi Blue Carbon Demonstration Project** also featured in the May 2013 edition of the Etihad Airways in-flight magazine in an article titled 'A pioneering project'.<sup>148</sup> In addition, GRID-Arendal and AGEDI staff engaged with the Royal Norwegian Embassy<sup>149</sup> in Abu Dhabi and a story on the project was featured on the Embassy's web site.
- GRID-Arendal led a **Green Economy and Blue Carbon session** at the July 2013 AIMS regional preparatory meeting leading up to the 2014 SIDS Summit, and was invited to co-implement a Nairobi Convention Green Economy workshop in Seychelles in December 2013.
- In February 2013, a well-visited side event on the Arctic was held during UNEP's Governing Council meeting. Anders Oskal, from the International Centre for Reindeer Husbandry, represented the **Nomadic Herders GEF project** on the panel and made a presentation on 'Emerging threats to the Arctic environment and indigenous people's livelihoods'.<sup>150</sup>
- From October 2012 to October 2013 UN-related organizations in Norway, including GRID-Arendal, have facilitated 15 **thematic consultations on the Post-2015 Development Agenda**. GRID-Arendal hosted two of the consultations. The outcome of this process was presented in a summary report entitled *The Future We Want For All - Report on the National Post-2015 Consultations in Norway*, that was presented to the Ministry of Foreign Affairs at a seminar held on 24 October 2013 in Oslo.
- GRID-Arendal participated with an **exhibition stand at the Sustainable Destinations conference** of Innovasjon Norge in January 2013. The message of the Minister of Commerce that Norway is aiming to become the most sustainable tourist destination in the world may give GRID-Arendal opportunities for closer cooperation with Innovasjon Norge (which handles most of the tourism budget of the Ministry).
- GRID-Arendal takes part in the annual celebration of International Week in Arendal, Norway. The week long event, which features seminars and workshops, exhibitions, a film-series, and other activities targeting different audiences, is jointly organized by GRID-Arendal and other regional and local organizations, to create awareness on the chosen theme of the celebration, to promote action at all levels and to facilitate dialogue across all stakeholders. The focus of the 2012 celebration was on sustainable energy in support of the 2012 UN Year of Sustainable Energy for All. The focus of the 2013 celebration was on water cooperation in support of the 2013.

145. [http://bluecarbonportal.org/?page\\_id=8489](http://bluecarbonportal.org/?page_id=8489)

146. <http://bluecarbonportal.org>

147. [http://iwllearn.net/abt\\_iwllearn/events/conferences/iwc7-2013/index.html](http://iwllearn.net/abt_iwllearn/events/conferences/iwc7-2013/index.html)

148. C:\Users\skaalvik\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\26XA8XZC\bluecarbonportal.org\?download=10026

149. <http://norway.ae/>

150. <http://www.grida.no/polar/news/5404.aspx?p=2>

# 11 Financial report

## 11.1 SUMMARY

The biennium 2012-13 began with an overall satisfactory funding situation where 85% of the budgeted funding for 2012 was secured with mostly larger, long-term programmes and projects.

The efforts to build up larger GEF programmes caused challenges in the coordination of our overall programme implementation due to delayed approvals. Therefore GRID-Arendal had to invest more resources in the preparation phases of the GEF projects than originally planned. These costs cannot be covered by the GEF project funding for the implementation phase in 2014. However these GEF projects remain a key long-term strategic direction for GRID-Arendal raising its international profile, institutional knowledge and level of support to UNEP and key partners.

There was a discrepancy in actual funding versus planned funding of –MNOK 22.7 determined in major part by the type of GEF funding that is required to flow through GRID-Arendal (Table 3). GRID-Arendal intends to better define and account for this type of “flow-through funding” as it prepares its future work plans and budgets.

Despite these fundraising challenges and other challenges related to the large fluctuations in the Norwegian currency both years, the foundation was flexible in the operations and able to keep the administration costs low at the same time. Therefore the biennium generated a financial surplus of MNOK 0.4 and the foundations equity amounted to MNOK 8.5, which is an equity ratio of 54% (2013 financials not yet audited).

## 11.2 PROGRAMME FUNDING 2012-13

The actual funding reported for the biennium 2012-13 does not equal the total long-term secured funding. Only funding to be spent on 2012-13 activities according to contracts, work programmes and budgets are reported as the biennium funding.

Beyond the MFA funding of MNOK 40.0 and the core funding of MNOK 9.0 from the Ministry of Environment (MoE), GRID-Arendal raised a total of MNOK 10.4 from UNEP and MNOK 48.3 from other external sources in 2012 and 2013, representing 55% of total funding of MNOK 107.7 for the biennium (up from 41% for the biennium 2010-11).

Capacity Building and Assessment and Polar and Cryosphere collectively raised MNOK 35.7 leveraged (external) funding (UNEP and external sources). This equals 67% of total funding (up from 54% for the period 2010-11).

The corresponding ratio for the Marine Programme is lower due to the stipulation that funding allocated to the Shelf Programme (Marine A) may not be leveraged. Nevertheless, external funding for the Marine Programme equals 42% of total Marine funding. This includes the Shelf Programme where the external funding is only at 9% for the period.

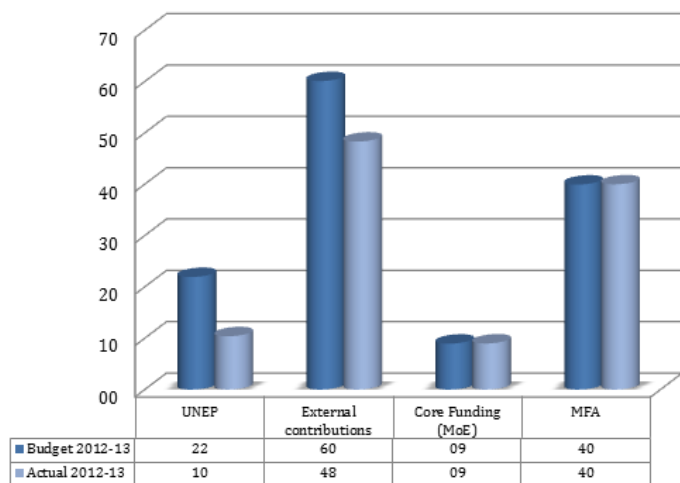


Figure 1: Actual funding 2012-13 versus budget (MNOK)



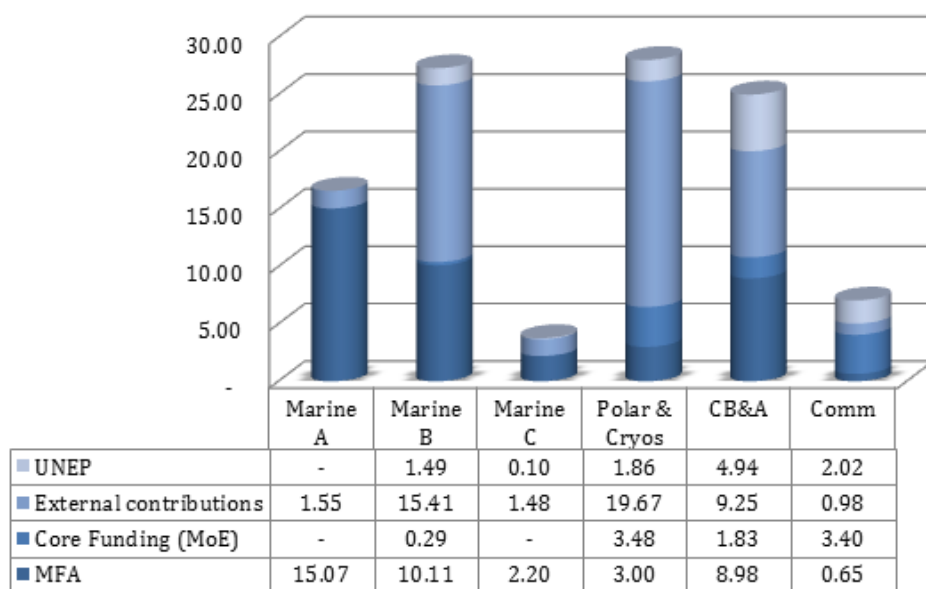


Figure 2: 2012-13 funding per programme (MNOK)

Programme	Actual funding 2012-13 (MNOK)				
	UNEP	External contributions secured by GA	GA Core Funding (MoE)	MFA	TOTAL
Marine: UNEP Shelf (A)	0,0	1,5	0,0	15,1	16,6
Management of the Marine Environment (B)	1,5	15,4	0,3	10,1	27,3
Green Economy and Natural Resources (C)	0,1	1,5	0,0	2,2	3,8
Polar and Cryosphere	1,9	19,7	3,5	3,0	28,0
Capacity Building and Assessment	4,9	9,2	1,8	9,0	25,0
Communications and Outreach	2,0	1,0	3,4	0,7	7,0
<b>TOTALS</b>	<b>10,4</b>	<b>48,3</b>	<b>9,0</b>	<b>40,0</b>	<b>107,7</b>

Table 1: Overview of GRID-Arendal's total funding 2012-13 (MNOK)

<b>Project Name</b>	<b>Donor</b>
Car pooling system	Aust Ageder Fylke
Caspian Information Center	BP Exploration (Caspian Sea) Ltd-British Petroleum
ABA Film	CAFF - Conservation of Arctic Flora and Fauna
Ecosystem Based Adaptation in 2 SIDS	CICERO - Center for International Climate and Environmental Research
Food Security Assesment - Development	CICERO - Center for International Climate and Environmental Research
Forced Migration & Climate Change	CICERO - Center for International Climate and Environmental Research
Many Strong Voices	CICERO - Center for International Climate and Environmental Research
Migration-Maldives/Ladshadweep	CICERO - Center for International Climate and Environmental Research
GeoMorphic Map	Conservation International Foundation
TEEB-Oceans	DEFRA - Department for Environment Food and Rural Affairs
Arctic NGO	ECORYS
Blue Carbon Agedi Demo Project	Environment Agency Abu Dhabi
Space Arctic	ESA - European Space Agency
FK 2011 TO 2012	Fredskorpet
Blue Solutions	GIZ - Deutsch Gesellschaft für Internationale Zusammenarbeit GmbH
Himalaya	ICIMOD - International Centre for Integrated Mountain Development
Project Leaf-Logging	INTERPOL
IPIECA - Bibliography	IPIECA - International Petroleum Industry Environment Conservation Association
Publications and Outreach 2013	Kabate
EMODNET	MARIS - Mareine Informatie Service
Caspian Master Plan	Med Ingegneria
Nomadic MoE	Miljøvern department
ORGFORC	NORAD - Norwegian Agency for Development Cooperation
West Africa Data Acquisition	NPD - Norwegian Petroleum Directorate
LIFE WEB	Permanent Commission for the South Pacific
Information Center	Regionalt Næringsfond Froland
Reindeer & Climate Change	Reindriftens Utviklingsfond
Reindeer & Industrial Development	Reindriftens Utviklingsfond
Deep Sea Minerals	SOPAC - Secretariat of the Pacific Community
Pacific Islands	SOPAC - Secretariat of the Pacific Community
Blue World Cap Dev	The World Bank
Blue Carbon Australia	Tierra Mar Consulting
UArctic	Uarctic
UN Habitat	UN Habitat
UN Regular Process	UNESCO - UN Educational Scientific and Cultural Organization
SDG Mountain Policy	University Bern - Centre for Development and Environment
EU Arctic Information Center	University of Lapland
Pacific Marine Spatial Information System	University of Sydney - AusAid
Mapping Hydro-power Potential in the Upper Nile	WWF Uganda

Table 2: External donors outside UNEP above KNOK 50 for the biennium 2012-13

### 11.2.1 Actual funding versus budget

Table 3 shows GRID-Arendal's actual funding 2012-13 versus budget. It must be noted that planned and actual funding varies as larger programmes can develop slower or faster than expected.

Programme	UNEP			External			MoE			MFA			Totals		
	Bud	Act	Ver	Bud	Act	Ver	Bud	Act	Ver	Bud	Act	Ver	Bud	Act	Ver
Marine: UNEP Shelf (A)	0,0	0,0	0,0	2,3	1,5	-0,8	0,0	0,0	0,0	18,5	15,1	-3,4	20,8	16,6	-4,1
Management of the Marine Environment (B)	10,4	1,5	-8,9	14,2	15,4	1,3	0,0	0,3	0,3	7,5	10,1	2,7	32,0	27,3	-4,7
Green Economy and Natural Resources (C)	1,9	0,1	-1,8	3,8	1,5	-2,3	0,0	0,0	0,0	1,5	2,2	0,7	7,1	3,8	-3,3
Polar and Cryosphere	0,1	1,9	1,8	19,1	19,7	0,6	3,5	3,5	0,0	3,0	3,0	0,0	25,6	28,0	2,4
Capacity Building and Assessment	4,1	4,9	0,8	20,2	9,2	-11,0	1,9	1,8	0,0	8,9	9,0	0,0	35,1	25,0	-10,1
Communications and Outreach	5,5	2,0	-3,5	0,6	1,0	0,4	3,6	3,4	-0,2	0,7	0,7	0,0	10,4	7,0	-3,3
<b>TOTALS</b>	<b>22,0</b>	<b>10,4</b>	<b>-11,5</b>	<b>60,1</b>	<b>48,3</b>	<b>-11,8</b>	<b>9,0</b>	<b>9,0</b>	<b>0,0</b>	<b>40,0</b>	<b>40,0</b>	<b>0,0</b>	<b>131,0</b>	<b>107,7</b>	<b>-23,2</b>

Table 3: Overview of GRID-Arendal's actual funding 2012-13 versus budget (MNOK)

The actual funding versus planned funding for the biennium varies negatively with MNOK 11.5 for UNEP funding and MNOK 11.2 for other external funding. The major portion of this variance is related to delayed approval and start up on the GEF related projects in the Marine and the Capacity Building and Assessment Division.

In the Africa Programme there were challenges to raise external funding. On the other side, the promising development of the activities related to the Environmental Crime Programme has partly compensated for this shortfall in funding.

The MNOK 3.5 negative funding variances in Communications and Outreach are partly due to not UNEP covered overspending on the GEO 5 production and the cancellation in respect of the DTIE contract for the International Resource Panel. And as the Communication and Outreach's main task is to support the 3 other Programmes, larger projects from 2012 onwards were not placed in Communications and Outreach.

### 11.2.2 Expenditures

Table 4 below reveals that project-related expenditures in 2012-13 totaled MNOK 104.7, inclusive of project activities not covered by the Programme Cooperation Agreement 2012-13 between MFA and GRID-Arendal.

Figure 3 graphically displays expenditure categories. The most significant is personnel costs, which represent 59% of the total (or MNOK 61.8) and are generated from time bookings of employees and long-term consultants against projects, inclusive of a mark-up to cover overheads.

Expenditures related to subcontracted services, travel and associated project expenses ('Other') are based on actual costs plus the 13% mark up to cover overheads. It should be noted that, while these costs are charged at standard rates, actual expenditures might differ slightly (i.e. overheads may not consistently equal 13%) generating a surplus in the financial accounts. External auditor KPMG has carried out an audit of the 2012-13 project expenditures.

PROJECT EXPENDITURES 2012-13 (FIGURES IN KNOK)	PERSONNEL	DIRECT COSTS	TOTAL EXPENDITURES
Marine: UNEP Shelf (A)	12 184	4 572	16 757
Management of the Marine Environment (B)	13 791	9 122	22 913
Green Economy and Natural Resources (C)	2 830	1 517	4 348
Polar and Cryosphere	15 817	10 864	26 680
Capacity Building and Assessment	13 866	12 357	26 223
Communications and Outreach	3 296	4 504	7 800
<b>TOTAL</b>	<b>61 784</b>	<b>42 937</b>	<b>104 721</b>

Table 4: Overview of GRID-Arendal's total Work programme Expenditures 2012-13 (KNOK)

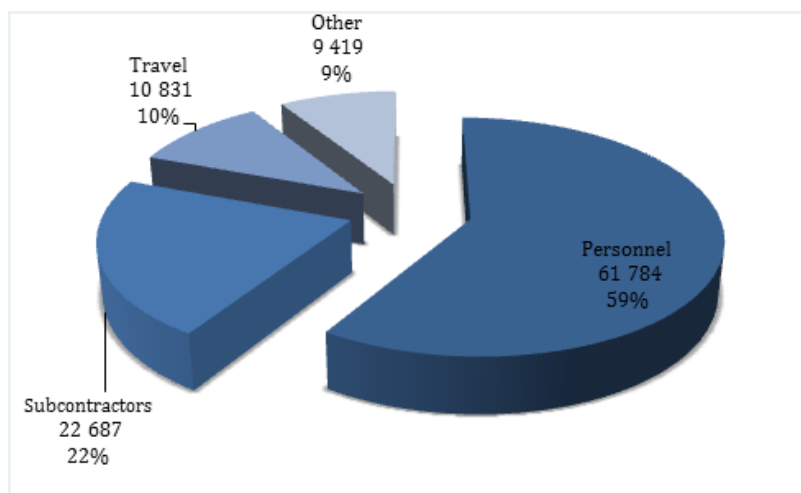


Figure 3: Breakdown of the 2012-13 expenditures of KNOK 104,721

### 11.2.3 Expenditures versus funding

Table 5 below shows how the funding balances at year-ends relate to the project activity (expenditures) per programme. The main task for project managers and finance department is to monitor that all projects has sufficient funding and can be delivered within these frames. All projects have been reviewed regarding this

matter, and programmes with negative balance in table 4 will be funded with contracted funding belonging to 2014. There are no balances of MFA funding carried over from the biennium 2012-13 into 2014. Transfer of funds is related to unspent external funding on projects (prepayment from donors), and should not be mixed with long term funding agreements on larger programmes.

Programme	Expenditures versus funding and impact on funding reserves (MNOK)			
	Transfer from 2011	Actual funding 2012-2013	Expenditure 2012-13	Variance (transfer into 2014)
Marine: UNEP Shelf (A)	- 0,2	16,6	16,8	- 0,4
Management of the Marine Environment (B)	- 0,3	27,3	22,9	4,1
Green Economy and Natural Resources (C)	0,3	3,8	4,3	- 0,3
Polar and Cryosphere	- 0,4	28,0	26,7	1,0
Capacity Building and Assessment	1,3	25,0	26,2	0,1
Communications and Outreach	1,4	7,0	7,8	0,6
<b>TOTALS</b>	<b>2,1</b>	<b>107,7</b>	<b>104,7</b>	<b>5,2</b>

Table 5: Expenditures versus funding 2012-13 and impact on funding reserves (MNOK)

### 11.3 BUDGET 2014

The budget for 2014 provides the basis for the MFA work plan and is normally prepared in October/November and approved by the Board of Directors at the beginning of December. The budget is based on the fundraising outlook at that time. Due to the challenges faced related to GEF implementations and securing other external funding, a conservative budget for 2014 has been prepared.

Therefore the Project Expenditure budget is reduced from the 2013 MNOK 70.7 level down to MNOK 54.4 for 2014 mainly to minimize the consequences of any project delays and reducing operational risks. Cost reductions in staffing and administration costs (see table 6) may be needed to secure an increased solidity/equity by MNOK 1.5 in 2014. Due to the high amount of prospects and major challenges to balance the project budgets with today's staff rates, the rates remain unchanged in 2014.



### 11.3.1 Projected funding

Figure 4 below shows the Board-approved funding budget of MNOK 57.9 for 2014, distributed by Programme area. The budget includes MNOK 4.5 MoE core funding, MNOK 20.0 MFA funding, MNOK 14.9 UNEP funding and MNOK 18.5 other external funding.

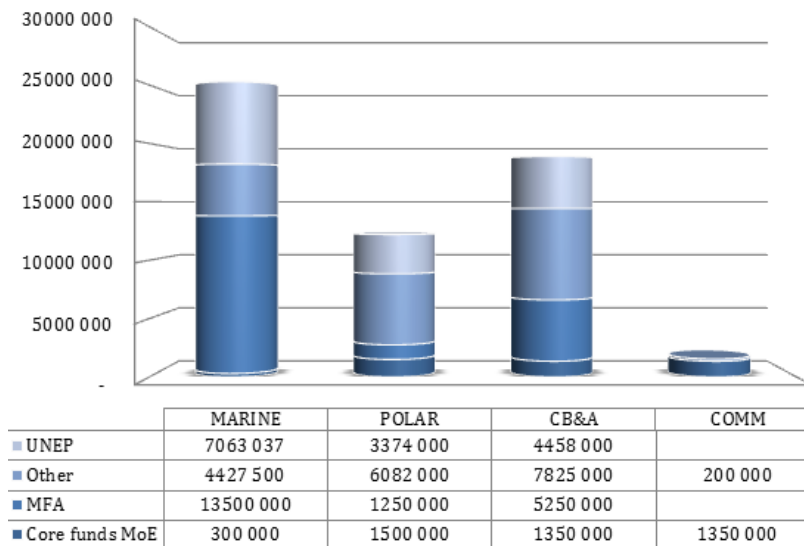


Figure 4: 2014 Board-approved budgets by programme (NOK)

GEF funding and other not contracted funding is a significant part of the fundraising budget 2014 as figure 5 shows, with totally MNOK 19.3 (58% of total external funding was not contracted). GEF contracts of MNOK 12.8 are not ap-

proved/signed. MNOK 9.7 of the funding not contracted is GEF “flow through funding” (no coverage of GA admin costs). Fundraising budget is based on all prospects with 80% or higher probability.

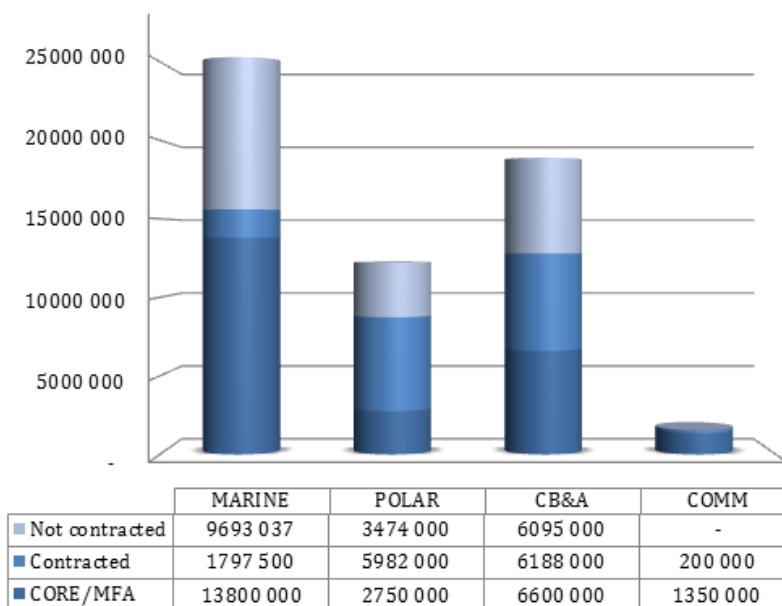


Figure 5: 2014 funding by Not contracted/Contracted (NOK)

### 11.3.2 Project expenditures 2014

Table 6 below shows fundraising budgets for 2014 projects larger than MNOK 1 and how they are funded. Various programmes are divided into individual projects for planning and reporting purposes.

Project name	CORE	MFA	OTHER	UNEP	TOTAL	EXTERNAL
ORGFORC			5 000 000		5 000 000	100%
Blue Forest Cash Through				4 776 000	4 776 000	100%
West Africa	4 400 000				4 400 000	0%
Sustainable Seas	3 850 000				3 850 000	0%
Himalaya			3 600 000		3 600 000	100%
Nomadic GEF flow thru'				2 844 000	2 844 000	100%
Assessment of sources of mercury po	1 200 000			1 200 000	2 400 000	50%
Refocusing Africa's EIMN	1 000 000			1 200 000	2 200 000	55%
Water Grab		600 000		1 050 000	1 650 000	64%
Environmental crime	1 050 000	450 000			1 500 000	0%
Polar UNEP	1 500 000				1 500 000	0%
Blue Solutions			1 490 000		1 490 000	100%
Blue Forest GEF Mgmt		325 000		1 085 950	1 410 950	77%
UArctic			1 300 000		1 300 000	100%
Nomadic Herders MFA	1 250 000				1 250 000	0%
Caspian Information Center		400 000	675 000		1 075 000	63%
Blue Forests Content		325 000		741 087	1 066 087	70%

Table 6: Largest projects in 2014 budget (NOK)

Table 7 below shows that GRID-Arendal has significantly reduced the administration costs since 2009 and are planning to reduce them even further for 2014 in order to be competitive in the challenging “international envi-

ronmental marketplace”. If the latest signals of a more optimistic funding situation at the end of January 2014 compared to October 2013 are correct, some of the more “short sighted” cost reductions may not be needed.

Admin Cost Category	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Forecast 2013	Budget 2013	Budget 2014	Cost reduction 2014
Accounting, auditing and other fees	1 736 481	1 194 990	775 483	720 136	767 111	645 996	693 000	74 111
Admin Travel costs	589 882	847 060	722 920	596 116	584 971	627 000	316 800	268 171
ICT	1 570 507	1 423 752	1 258 241	1 375 998	1 344 374	1 135 999	1 152 000	192 374
Meetings and memberships	248 055	225 570	126 571	168 879	104 157	144 000	120 000	(15 843)
Office and premises	3 007 649	2 764 823	2 792 719	2 493 472	2 820 306	2 733 000	2 875 470	(55 164)
Office supplies	342 651	245 588	243 318	195 312	357 045	210 000	282 000	75 045
Postage and freight	84 285	65 452	34 301	68 767	16 485	54 000	18 000	(1 515)
Staff development and staff retreat	248 076	515 096	447 652	384 132	492 623	696 000	216 000	276 623
<b>Grand Total</b>	<b>7 827 586</b>	<b>7 282 332</b>	<b>6 401 206</b>	<b>6 002 812</b>	<b>6 487 072</b>	<b>6 245 995</b>	<b>5 673 270</b>	<b>813 802</b>

Table 7: Administration costs 2009-2014 (NOK)

# 12 Deviations from, and adjustments to the annual work plan

Where some deviations from the work plan were to happen or were necessary is listed following our three Divisions of work GRID-Arendal was organised during 2012 and 2013.

## Marine Division

We strived to start projects to support developing countries (those we were involved for the Shelf Programme) on the management of the deep seabed in and outside national jurisdiction. 2013 saw the beginning of informal discussions with UNEP (DELC, DEWA and DEPI) on a concept referred to internally at UNEP as “Greening of the Shelf”. From initial discussions started in late 2012, UNEP project 421-1 Promoting the Progressive Development of International Environmental Law has been included in the latest (as of writing) version of the UNEP 2014-2015 PoW. This falls under Sub-programme 4, Environmental Governance. UNEP internal processes continue and a final review of the PoW by the Programme Review Committee (PRC) will determine if this collaboration will be implemented.

Within the Sustainable Seas Programme (Management of the Marine Environment) there have been 2 capacity-building workshops conducted by GRID-Arendal (Bangkok and Abidjan), one of which was in West Africa. The mandate to hold SoME workshops is derived from the UN World Ocean Assessment and GRID-Arendal has responded to the direction given by the UN and acted accordingly.

Within the Ecosystem-based Management/Spatial Planning work we aimed to have come further in relation to our involvement with the Global Partnership for Oceans (GPO), the International Seabed Authority (ISA) and implementing the ‘Greening of the Shelf’ concept in a Regional Sea. In 2012 GRID-Arendal engaged in the GPO process and nominated Dr Peter Harris (a seconded staff member to GRID-Arendal from Australia) to be a member of the GPO Interim Working Group. He attended a WG meeting in Washington DC on April 25 and 26, 2013. However, the GPO has not made the progress that had been initially envisaged (the GPO grand launch planned for The Hague in Sept 2013 was cancelled) and GRID-Arendal has substantially scaled back its involvement in 2013. GRID-Arendal has maintained a watching brief on the GPO and stands ready to contribute if this initiative is able to become established in 2014-15.

Some informal consultations were held with the International Seabed Authority and with Norway on possible alignment of technical support for developing states delivered via the Secretariat of the ISA. The conclusion was that such an approach would be politically risky and would require a re-think of any form of formal partnership. The finalization of the partnership with UNEP was deemed to be the priority and that explorations of formal partnerships with other UN bodies should not be explored at this time. Collaboration at the project level is encouraged and opportunities could be explored.

The process preparing the Global Environmental Facility (GEF) project on “Blue Forests” took longer than expected and led to a substantial budget overrun in 2013. However, the significant efforts of GRID-Arendal seem to be successful when we learned that project preparation documents passed the UNEP Project Review Committee (PRC) with a grade of satisfactory, and UNEP submitted them to GEF.

## Polar and Cryosphere

The main project of Polar and Cryosphere falling under the MoFA framework agreement work plan, the proposal for a GEF project on “Nomadic Herders and land use change” was hoped to get approval in 2013. The activities planned at the start of the biennium period were based on information and knowledge about the needs and priorities at that time. For example, the Changing Taiga report (published 2011) highlighted the strong need to engage with tourism operators and produce reports related to this. There were also plans to develop a mobile phone application for monitoring activities. However, throughout the course of the biennium period, needs and priorities rapidly changed, due to external circumstances beyond the control of the project. The establishment of the Tengis-Shishged National Park in late 2012, for example, was a major development. Reindeer herders suddenly found themselves in a protected area, but with little say or role in the management of their pastures. Hence the re-focus of activities towards dialogue between protected area management authorities and reindeer herders (see activities related to World Environment Day, for example).

Furthermore, a significant amount of resources (time, money) was needed to be re-directed towards development of the GEF proposal. This included extensive consul-

tations in Mongolia at all levels of government and with the reindeer herder community. These efforts have been well spent, as the Mongolian government has committed (and confirmed in writing) over one million USD in cash financing, and several million USD in co-financing for this project. As a result of these efforts, awareness of the issues has been significantly raised within Mongolia, and the project has played a role in the development of a new policy on reindeer husbandry.

### **Capacity Building & Assessments**

Within our African Programme, the AfricaEIN network members had planned a publication on land and ocean connections. This did not materialize because the required funding was not received. Efforts will be made to pursue the funding in 2014 as part of efforts to keep the network active.

As part of efforts to better understand the impact of large-scale land acquisitions on local livelihoods, especially of nomadic cattle herders, a Rapid Response Assessment on Drylands had been planned. However, the assessment did not materialise due to failure to obtain the required funding.

Within GRID-Arendal's engagement in Eastern Europe and Central Asian countries (EECCA region) on "Chemical Safety", national reports on toxic substances in children's products were planned as well as national outreach campaigns. However, we did not plan to do national reports ourselves – it was out of scope and beyond the budget. However all 6 project countries have prepared and circulated their national reports conducted by the NGO coalitions involved. The project has been primarily an awareness raising one, and it has succeeded in this beyond expectation. Searching the internet gives more than 120,000 web sources republishing the results of the tests

based on the overall report prepared by IPEN and GRID-Arendal.

Though there has been no national outreach campaign in Tajikistan, which was not feasible within the given budget, elements of campaigns in two main cities were achieved. And most important: the project results were taken into the National Action Plan contributing to the forming of the positive position of Tajikistan towards the Minamata Convention. Sound policy work has been performed.

Within GRID-Arendal's support to the Interim Secretariat of the Tehran Convention on the Caspian Sea, the production of a biodiversity atlas was envisioned. However, the initial commitment of Agip to support the production of the Biodiversity Atlas as well as other joint projects has been withdrawn, due to internal reasons. For some time the company has frozen its communications and GRID-Arendal had to stop the planned project with Agip and return the funding. However in November of 2013, talks have resumed on the request of Agip and the re-installment of the contract is under negotiation with very good prospects of implementation in 2014.

At the same time negotiations with the British Petroleum have been successful, and the commitment to continue the funding of the Caspian Sea Environmental Information Centre (CEIC) has been received from the management of the BP office in Azerbaijan. Though the major breakthrough has been achieved in getting data for the CEIC from both companies, the overall decision-making on funding is very slow.

The project "Linking Tourism & Conservation" was stopped in 2013 as the project leader used more time than expected on his PhD thesis and therefore could not complete the work.



# 13 Assessment of effectiveness

In October 2012, the Executive Director of UNEP, Achim Steiner, wrote in a letter<sup>151</sup> to our Chairman, Olav Orheim, that “**GRID-Arendal has emerged as one of the most effective collaboration centres in the UNEP family**, helping to position UNEP as a strong, science-based organisation, able to respond expeditiously to the needs of governments and international policy processes.” The letter was also a topic when the Standing Committee on Foreign Affairs and Defence (‘Utenriks- og forsvarskomiteen’) of the Norwegian Parliament (Stortinget) invited GRID-Arendal for a public hearing on “Norge og FN: Felles framtid, felles løsninger” (“Norway and the UN: common future, common solutions”). In the parliamentary committee’s official response (‘instilling’) to the Government, GRID-Arendal and UNEP are specifically mentioned in the context that it is important for Norway to develop the relationships between Norwegian-based organisations and UN institutions and organisations in order to make UN organisations more effective.<sup>152</sup>

---

151. See letter in Annex 1

152. <http://www.stortinget.no/Saker-og-publikasjoner/Saker/Sak/?p=54599>

Signs that GRID-Arendal is seen as an effective and efficient partner of UNEP are the increasing requests and contracts from UNEP for “Rapid Response Assessments” (RRAs) on urgent global issues. On very short notice and within tight time frames, GRID-Arendal has produced in 2012-13 the following RRAs: *Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the World’s Tropical Forests*; *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*; *Elephants in the Dust: The African Elephant Poaching Crisis*; and *Food Lost, Food Waste: Food Security by Restoring Ecosystems and Reducing Food Loss*.

A total of 26 publications<sup>153</sup> were produced during the biennium in collaboration with UNEP and other partners. Some of our publications had an immediate impact on political decisions in the frame of international conventions, such as the Minamata (Mercury) Convention or CITES.

---

153. See chapter 10 for full list of publications produced during biennium 2012-2013

# 14 Summary of lessons learned

In the attempt to focus on larger long-term projects, GRID-Arendal committed significant effort and funds to participate in projects financed significantly by the Global Environment Facility. Although we were aware of complicated processes and risks involved, we underestimated the amount of time and effort required to participate in the grant application process.

One lesson learned is the need for relatively long-term engagement and patience in both the development and submission of GEF-funded projects, which unfortunately do not happen overnight. Nomadic Herders is one example. The potential for the project to deliver real impact is high, with extensive government and community ownership of the process and valued activities. However, GRID-Arendal is also vulnerable to a number of high risks. This includes slow response from one of the governments, which may jeopardize the financial support from the GEF Secretariat for the project proposal if it is not delivered within an agreed time frame. GRID-Arendal is leaning on UNEP to apply pressure in order to minimize this risk. However, GRID-Arendal is also vulnerable to risks, which are effectively out of its control, especially in Russia. The challenge for GRID-Arendal will be to minimise these risks in the future.

Following from the above, challenges related to GEF project development were also encountered in the marine work of GRID-Arendal. In particular, there is now a better understanding of the need, in the project preparation phase, to rely more predominantly on consultants with proven experience with GEF document preparation. Although GRID-Arendal has internal expertise on content

delivery, the GEF process emphasises the value of document style and organization. Despite higher than anticipated efforts and costs to complete the preparation phase, the Blue Forest GEF remains a key project that will deliver results within our marine strategy in the long term.

Another lesson learned comes from the knowledge and experienced gained in our relations with specific national governments for which we deliver large-scale, complex outputs. Before projects start, it is important to properly evaluate and acknowledge how consultants with key client experience can ensure effective project implementation. We should not shy away from large scale, complex projects serving the needs of a national government; we should however take the time to understand on-the-ground realities and factor those more effectively into our project planning.

Within GRID-Arendal's ongoing efforts to focus on UNEP's Plan of Work, we have learned that the most requested services we provide for UNEP can be summarized in the following four themes:

- Adaptation to climate change
- Marine and coastal resources
- Environmental crime
- Transboundary waters

We therefore plan for future programme cooperation agreements with MoFA to cluster our activities, where we best can serve UNEP, under these themes.<sup>154</sup>

---

154. See annex 5: Flyer 'Environmental strategic outlook'

# Acronyms

ABNJ	Areas Beyond National Jurisdiction
ADB	Africa Development Bank
AEO-3	The Third Africa Environment Outlook
AfricaEIN	Africa Environment Information Network
AGEDI	Abu Dhabi Global Environmental Data Initiative
AIMS	Atlantic, Indian Ocean, Mediterranean, and South China Sea
AMCEN	Africa Ministerial Conference on the Environment
APN	Asia-Pacific Network for Global Change Research
AUSAID	Australian Agency for International Development
BP	British Petroleum
CAFF	Arctic Council's Conservation of Flora and Fauna Working Group
CBD	Convention on Biological Diversity
CCAC	Climate Clean Air Coalition
CEHAPE	Children Environment and Health Action Plan in Europe
CEIC	Caspian Environmental Information Center
CI	Conservation International
CICERO	Center for International Climate and Environmental Research - Oslo
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CITES COP16	Convention on International Trade in Endangered Species of Wild Fauna and Flora 16 <sup>th</sup> Conference of the Parties
CMS	Convention on Migratory Species
COBSEA	Coordinating Body on the Seas of East Asia
COP10	10th Meeting of the Conference of the Parties to the Abidjan Convention
DCPI	UNEP's Division of Communication and Public Information
DEFRA	Government department for Environment, Food & Rural Affairs
DEWA	UNEP's Division on Early Warning and Assessment
DLB MP	Drukšiai/Drisviaty Lake Basin Management Programme
DTM	Digital Terrain Model
EbA	Ecosystem-based Adaptation
EbM	Ecosystem-based Management
EBSA	Ecologically or Biologically Significant Area
EEA	European Environment Agency
EECCA	Eastern Europe, the Caucasus and Central Asia
EIAs	Environmental impact assessments
EIO	Environmental Information Officers

ESA	European Space Agency
EU	European Union
EU WFD	European Union Water Framework Directive
FAO	Food and Agriculture Organization of the United Nations
FFA	Pacific Islands Forum Fisheries Agency
FK	Fredskorpset
FSP	Full-Sized Project Proposal
GA	GRID-Arendal
GC/GMEF	UNEP Governing Council/Global Ministerial Environment Forum
GEF	Global Environment Facility
GEO-5	Fifth Global Environment Outlook
GIS	Geographic Information Systems
GIZ	German Development Agency
GPST	Global Partnership for Sustainable Tourism
GRASP	Great Apes Survival Partnership
GWP	Global Water Partnership
HICAP	Himalayan Climate Change Adaptation Programme
HCFC	Hydrochlorofluorocarbons
ICIMOD	International Centre for Integrated Mountain Development
ICLEI	International Council for Local Environmental Initiatives
IPEN	International POPs Elimination Network
ICR	International Centre for Reindeer Husbandry
ISA	International Seabed Authority
IMO	International Maritime Organization
INC5	International Negotiating Committee on Mercury
INTERPOL	International Criminal Police Organization
IOC	Intergovernmental Oceanographic Commission of UNESCO
IPEN	International Persistent Organic Pollutants (POPs) Elimination Network
IRP	International Resource Panel
IUCN	International Union for Conservation of Nature
JOGMEC	National Japanese Government Center
KwF	Kreditanstalt für Wiederaufbau
LEAD	the Law Enforcement Against Deforestation
LEAF	Law Enforcement Assistance to Forests
LIMCOM	Limpopo River Basin Commission
LT&C	Linking Tourism and Conservation
MoU	Memorandum of Understanding
MFA	Norwegian Ministry of Foreign Affairs



MSV	Many Strong Voices
MTAP	Medium Term Action Plan
NATO	North Atlantic Treaty Organisation
NGO	Non- Governmental Organisation
NOAA	National Oceanic and Atmospheric Administration
NORAD	Norwegian Agency for Development Cooperation
NOWPAP	North West Pacific Action Plan
NPD	Norwegian Petroleum Directorate
NPP	Nuclear Power Plant
ODA	Official development assistance
ODINAFRICA	Ocean Data and Information Network of Africa
OKACOM	Okavango River basin Commission
ORGFORC	Organised Forest Crime
OSDS	One Stop Data Shop
OSPAR	Oslo and Paris Conventions
PCA	Programme Cooperation Agreement
PES	Payments for Ecosystem Services
PI	Presencing Institute
PIF	Project Identification Form
PoW	Programme of Work
PPG	Project Preparation Grant
PRC	Programme Review Committee
RAIPON	Russian Association of the Indigenous Peoples of the North
RbM	Result Based Management
REC	Regional Environmental Centre for Central and Eastern Europe
REDD	Reducing emissions from deforestation and forest degradation
RRA	Rapid Response Assessments
SADC	Southern African Development Community
SAICM	Strategic Approach for Integrated Chemical Management
SARDC	Southern African Research and Documentation Centre
SDWG	Arctic Council's Sustainable Development Working Group
SEIS	Shared Environmental Information Systems
SIDA	Swedish International Development Agency
SIDS	Small Island Developing States
SLCP	Short Lived Climate Pollutant
SoE	State of Environment
SoME	State of Marine Environment
SoMMCER	State of the Mediterranean Marine and Coastal Environment Report

SPC/SOPAC	Secretariat of the Pacific Community/Applied Geoscience and Technology Division
SPM	Summary for Policy Makers
SSFA	Small Scale Funding Agreement
TBWR	Transboundary Waters Resource Management
TEEB	The Economics of Ecosystems and Biodiversity
UN-DESA	United Nations Department of Economic and Social Affairs
UNDOC	United Nations Office on Drugs and Crime
UNDP	United Nations Development Programme Services
UNEA	United Nations Environment Assembly of UNEP
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNEP DEPI	UNEP's Division of Environmental Policy Implementation
UNEP DTIE	UNEP's Division of Technology, Industry and Economics
UNEP/MAP	UNEP's Mediterranean Action Plan
UNEP ROE	UNEP Regional office for Europe
UNOPS	United Nations Office for Project
UN REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
UNEP-WCMC	UNEP World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC COP18	United Nations Framework Convention on Climate 18 <sup>th</sup> Conference of the Parties
UNFCCC COP19	United Nations Framework Convention on Climate 19 <sup>th</sup> Conference of the Parties
UNODC	United Nations Office on Drugs and Crime
UNON	United Nations Offices, Nairobi
USAID	United States Agency for International Development
VMEs	Vulnerable Marine Ecosystems
WAVES	Wealth Accounting and Valuation of Ecosystem Services
WCO	World Customs Organization
WOA	World Ocean Assessment
WRI	World Resource Institute
WWF	World Wide Fund for Nature
ZAMCOM	Zambezi Watercourse Commission
ZEO	Zambia Environment Outlook
ZHC	Zero Hunger Challenge



# Annex 1 - Letter UNEP's Executive Director to Chair Board GRID-Arendal



UNITED NATIONS ENVIRONMENT PROGRAMME

Programme des Nations Unies pour l'environnement    Programa de las Naciones Unidas para el Medio Ambiente  
Программа Организации Объединенных Наций по окружающей среде    برنامج الأمم المتحدة للبيئة  
联合国环境规划署



Our Reference: DEWA/WCMC/EO/2248/2012/MG/yo

1 November 2012

Dear Mr. Orheim

I understand that you have been invited to make representations to the Government of Norway regarding your work with UN institutions. I am writing to lend support to your efforts and give an update on the value to UNEP of our collaboration.

As I mentioned before, GRID Arendal has emerged as one of the most effective collaboration centres in the UNEP family, helping to position UNEP as a strong science-based organization able to respond expeditiously to the needs of governments and international policy processes.

By way of example, GRID Arendal is currently leading, on behalf of UNEP, a global study on *The Economics of Ecosystems and Biodiversity for Oceans*. This is an eminently important study that should advance our understanding of the interdependencies between our economies and the Oceans. The Centre has also taken strong leadership of UNEP's Polar work, giving member states increased access to information and expertise needed to protect the Polar region. I have made Partnerships the hallmark of UNEP's strategic presence in, and offering to, member states. If UNEP is to expand the breadth and depth of its support to member states, it has to rely on complimentary capacities in institutions such as GRID Arendal. In the past, GRID Arendal has secured for UNEP additional, consistent and high quality capacity and competencies in environmental information, communications and capacity building at a much lower cost and with more flexibility than through hiring staff.

The Centre has provided a reliable long-term repository of knowledge and custodianship of globally important environment-related databases and other environmental infrastructure. I hope that with the signing of a new MoU, the Government of Norway will continue investing in GRID Arendal and through GRID, in the reservoir of expertise experienced in working with UNEP's programme of work.

GRID Arendal has generated significant benefits for member states and the global community. I look forward to continuing that rich tradition.

Yours sincerely

Achim Steiner  
Executive Director

Mr. Olav Orheim  
Chairman, GRID Arendal,  
Pilestredet Park 5, 0176  
Oslo, Norway

E-mail: [Olav.Orheim@grida.no](mailto:Olav.Orheim@grida.no)

cc. Mr. Peter Prokosh  
Managing Director, GRID Arendal, [Peter.Prokosch@grida.no](mailto:Peter.Prokosch@grida.no)

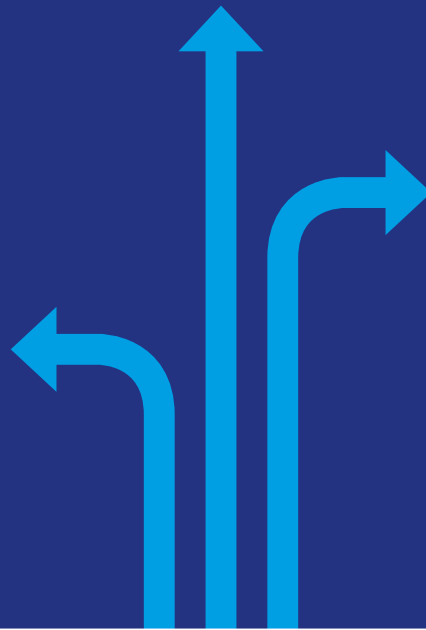
---

Executive Office

P. O. Box 30552, Nairobi, Kenya • Tel: (254 20) 762 3386/3416/ 3652 • Fax: (254 20) 762 4275 / 4608 • E-mail: [executiveoffice@unep.org](mailto:executiveoffice@unep.org)

[www.unep.org](http://www.unep.org)





---

# Strategic Directions for 2014–2017

---

EXTERNAL  
VERSION

## Mission

*To support environmentally sustainable development through UNEP and other partners by communicating information that strengthens environmental management capacity and motivates decision-makers to act.*

## Vision

*A society that understands, values and protects the environment on which it depends*

## Values

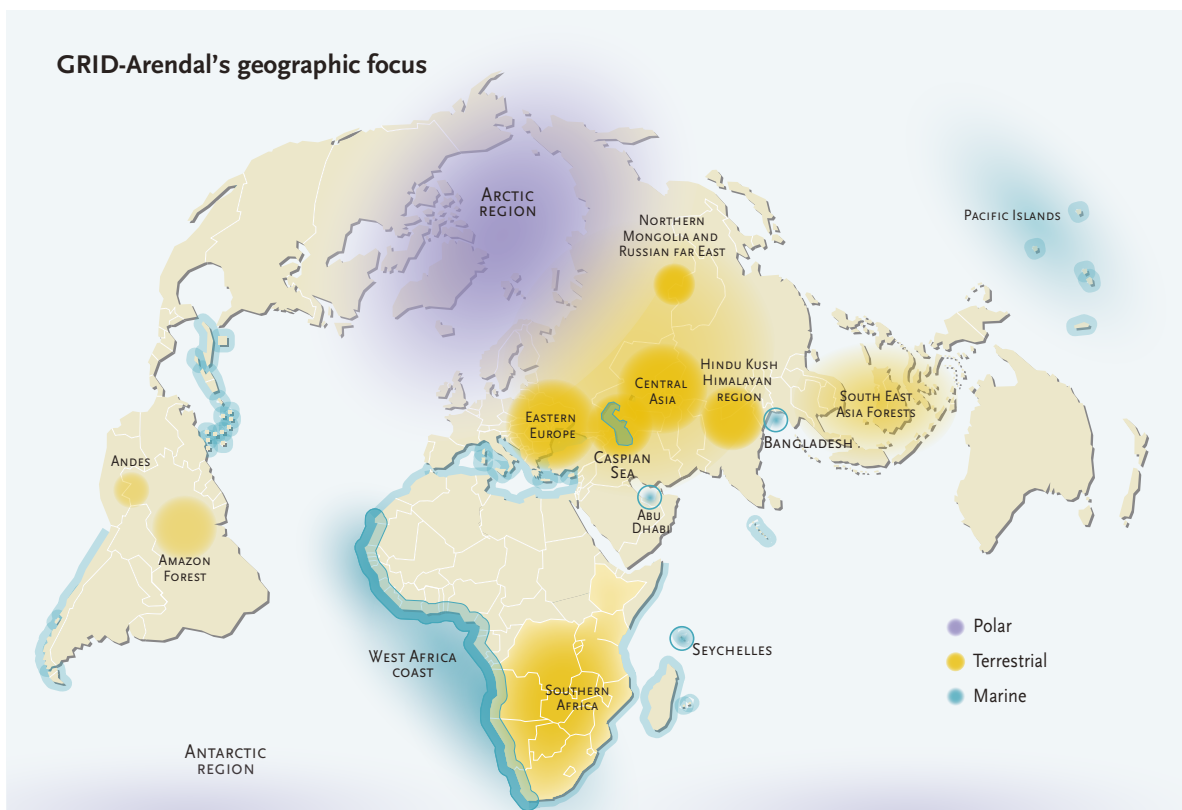
As a strategic partner and a centre collaborating with UNEP, GRID-Arendal embraces the core values of the United Nations:

- Integrity
- Professionalism
- Respect for Diversity

## Basis for the Future

We have a record, built up over the past 25 years, of

- Communicating high quality environmental information and thereby bridging the gap between science and policy;
- Implementing “impact-driven” projects and programs;
- Addressing emerging environmental issues;
- Being an efficient and flexible organisation delivering products rapidly;
- Nurturing a multi-cultural staff with highly diverse skills and expertise;
- Cultivating partnerships and networks;
- Facilitating cooperation and building capacity within and across national borders.



# Strategic Directions

---

GRID-Arendal's overall strategic directions for the next four years are to:

- **Focus** on building up a portfolio of larger long-term projects.
- **Strengthen** our support to environmental conventions and cross-border cooperation.
- **Emphasize** synergies that draw on expertise across programme areas.
- **Support** the world's transition to a 'green economy'.
- **Strengthen** our networks and enhance partnerships.
- **Grow** our potential to bring stakeholders together to enable environmental solutions to be found.
- **Increase** cooperation with other UN organisations in fulfilling the goals of the Rio+20 process.
- **Encourage** innovation and creativity through the enhancement of organisational learning.
- **Develop** a clear brand. Our aim will be to make GRID-Arendal's products instantly recognizable, and to ensure that the organisation, and what it stands for, is known far more widely than today.

To realise our goals, we intend to strengthen significantly our work practices in specific key areas, whilst incorporating challenging new components into our work portfolio.

We intend, by investing in enhanced training and in new state-of-the-art technologies, to ensure that GRID-Arendal's profile, as a provider of such materials, is greatly enhanced. Our aspiration is that the GRID-Arendal "brand" will be instantly recognisable internationally.

Capacity building and the assessment (and mitigation) of environmental impacts are currently integrated across all our work. We plan to strengthen these activities, concentrating on either specific geographic or subject areas. We will, for example, increase our attention towards Africa, placing particular emphasis on the sub-Saharan region, as well as on coastal states. We will, where

appropriate, do so in co-operation with UNEP's Africa programme to enhance capacity within national authorities. This should enable those bodies to deal more readily with the challenges brought about by environmental change.

A major strength to be gained from this is the geographic and cultural diversity and expertise of our staff. These attributes have greatly enhanced our ability to act as a successful facilitator of environmental issues – mediating between conflicting parties, or bringing parties together to achieve greater environmental benefit. Our successes to date have included elements of continental-shelf delineation and close involvement in the Caspian Sea Convention. We intend, using the diverse strengths within GRID-Arendal, to broaden the scope of this mediation function.

We will also increase our focus on specific issues such as: assessing environmental crime (illegal logging, fisheries, mineral extractive industries, etc), environmental security (food, health, transboundary water and environmental issues), and dealing with the environmental challenges brought about by climate change.

GRID-Arendal has had a long-standing involvement in the Arctic, acting on behalf of UNEP as an Observer to the Arctic Council and providing capacity-building to the Indigenous Peoples of the region. Building on that experience, and combining it with other pertinent expertise (e.g. on resource utilisation) from within our organisation, we plan to extend polar/cryosphere work into the Antarctic and High Mountains. Within the latter we shall look to expand links with the peoples of the Hindu-Kush and Mongolia. In the Antarctic, work will concentrate on issues such as the expansion of commercial fisheries and the role that Antarctica plays in global climate processes.

Work will also broaden within the marine environment where GRID-Arendal has acquired strong expertise and influence over many years. We shall draw on that to shift and extend the

marine portfolio into ecosystem-based marine management, blue carbon habitats and ecosystem services, integrated marine and coastal spatial planning and resolving new challenges arising from extended continental shelf delineation.

Successful delivery of the 2014-2017 strategy will rely heavily on resources. GRID-Arendal's personnel are the organisation's greatest assets. Accordingly, staff competencies will be nurtured, and enhanced through a revitalised training programme. We shall

actively promote greater synergy amongst staff throughout the whole organisation.

In parallel, financial policies will be put in place to meet the added demands that the 2014-2017 strategy will inevitably place on the organisation. Such policies will include more effective fiscal management, transparency and the means of integrating financial and project management. The latter should go hand-in-hand with more effective methods of financial planning and risk assessment.



# Annex 3 - Audited financial statements



**KPMG AS**  
P.O. Box 103  
luellsklev 4  
N-4801 Arendal

Telephone +47 04063  
Fax +47 37 00 52 25  
Internet www.kpmg.no  
Enterprise 935 174 627 MVA

GRID-Arendal  
Service Box 183  
4802 Arendal

## **Report regarding - Framework Agreement for 2012 and 2013 between the Norwegian Ministry of Foreign Affairs and UNEP/GRID-Arendal: Work Programme 2012-2013**

We have performed the procedures agreed with you and enumerated below with respect to the financial statement for the "Work Programme" for the period 01.01.2012-31.12.2012. The Work Programme components are:

- Marine A. UNEP Shelf Programme
- Marine B. Management of the Marine Environment
- Marine C. Green Economy and Natural Resources
- Capacity Building and Assessment
- Polar & Cryosphere
- Communications and outreach

Our engagement was undertaken in accordance with the ISRS 4400 Engagements to Perform Agreed-upon Procedures Regarding Financial Information. The procedures were performed solely to assist you in evaluating the validity of the financial statement for the Work programme for 2012 and are summarized as follows:

1. We have checked on a sampling basis that fees are based on hours recorded in the Work Programme's accounts.
2. We have checked on a sampling basis that expenditures are supported with vouchers in the Work Programme's accounts.
3. Accounting has been carried out in accordance with accepted principles in Norway.

We report our findings below:

1. Fees amounting to NOK 32 344 013 are based on hours recorded in the Work Programme's accounts.
2. Expenditures amounting to NOK 18 006 534 are supported with vouchers recorded in the Work Programme's accounts. In this amount 13 % overhead is included.
3. With respect to item 3, accounting has been carried out in accordance with accepted principles in Norway.

Based on the performed procedures described above on the account statement for the "Work Programme" in our opinion costs with a total amount of NOK 50 350 547 are documented satisfactorily and properly recorded in GRID-Arendal's project's accounts.

Offices in

Oslø	Hammer	Sandefjord
Alta	Haugesund	Sandnessjøen
Arendal	Kristiansand	Stavanger
Bergen	Larvik	Stord
Bodo	Molde	Tromsø
Elverum	Molde	Trondheim
Finnsnes	Narvik	Tønsberg
Grimstad	Røros	Ålesund

KPMG AS, a Norwegian member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Statsautoriserte revisorer - medlemmer av Den norske Revisorforening



Our report is solely for the purpose set forth in the first paragraph of this report and for your and the Norwegian Ministry of Foreign Affairs information, and is not to be used for any other purpose or to be distributed to any other parties. This report relates only to the accounts and items specified above and do not extend to any financial statements of GRID-Arendal, taken as a whole.

Arendal, 8 February 2013  
KPMG AS

  
Terje H. Holst  
*State Authorised Public Accountant*



**KPMG AS**  
Strømsbuveien 61  
N-4836 Arendal

Telephone +47 04063  
Fax +47 37 00 52 25  
Internet www.kpmg.no  
Enterprise 935 174 627 MVA

GRID-Arendal  
Service Box 183  
4802 Arendal

**Report regarding  
- Framework Agreement for 2012 and 2013 between the Norwegian Ministry of  
Foreign Affairs and UNEP/GRID-Arendal: Work Programme 2012-2013**

We have performed the procedures agreed with you and enumerated below with respect to the financial statement for the "Work Programme" for the period 01.01.2013-31.12.2013. The Work Programme components are:

- Marine A. UNEP Shelf Programme
- Marine B. Management of the Marine Environment
- Marine C. Green Economy and Natural Resources
- Capacity Building and Assessment
- Polar & Cryosphere
- Communications and outreach

Our engagement was undertaken in accordance with the ISRS 4400 Engagements to Perform Agreed-upon Procedures Regarding Financial Information. The procedures were performed solely to assist you in evaluating the validity of the financial statement for the Work programme for 2013 and are summarized as follows:

1. We have checked on a sampling basis that fees are based on hours recorded in the Work Programme's accounts.
2. We have checked on a sampling basis that expenditures are supported with vouchers in the Work Programme's accounts.
3. Accounting has been carried out in accordance with accepted principles in Norway.

We report our findings below:

1. Fees amounting to NOK 29 440 306 are based on hours recorded in the Work Programme's accounts.
2. Expenditures amounting to NOK 24 930 365 are supported with vouchers recorded in the Work Programme's accounts. In this amount 13 % overhead is included.
3. With respect to item 3, accounting has been carried out in accordance with accepted principles in Norway.

Based on the performed procedures described above on the account statement for the "Work Programme" in our opinion costs with a total amount of NOK 54 370 671 are documented satisfactorily and properly recorded in GRID-Arendal's project's accounts.

Offices in:

Oslo	Hammer	Sandefjord
Alta	Haugesund	Sandnessjøen
Arendal	Kristiansund	Stavanger
Bergen	Larvik	Stord
Bodø	Mo i Rana	Tromsø
Elverum	Molde	Trondheim
Finnsnes	Narvik	Tønsberg
Grimstad	Roros	Ålesund

KPMG AS, a Norwegian member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity  
Statsautoriserte revisorer - medlemmer av Den norske Revisorforening



Our report is solely for the purpose set forth in the first paragraph of this report and for your and the Norwegian Ministry of Foreign Affairs information, and is not to be used for any other purpose or to be distributed to any other parties. This report relates only to the accounts and items specified above and do not extend to any financial statements of GRID-Arendal, taken as a whole.

Arendal, 27 January 2014  
KPMG AS

  
Terje H. Holst  
*State Authorised Public Accountant*



# Environmental strategic outlook

Making options for sustainable development simple





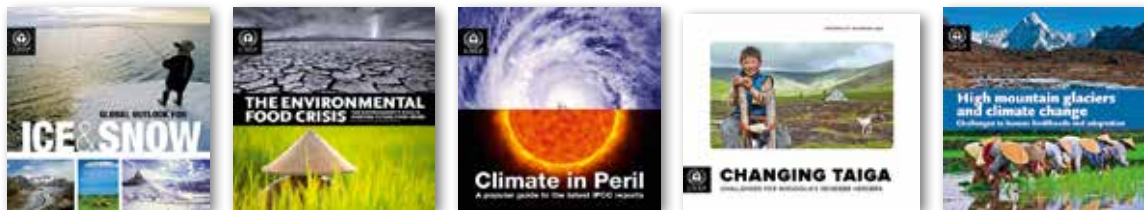


# Adaptation to climate change

## From melting ice and snow to development challenges and food security

Climate change is no longer the future – it is already happening. Given the time lags in full scale impacts, it is essential that new pathways are found to both reduce future emissions and find good ways to adapt. The issue is global involving deforestation and REDD+, food security and development assistance, as well as Arctic and Antarctic resource and political collaboration.

At GRID-Arendal, we strive to address both threats and opportunities, in simple formats suitable for policy-making, from people and nature affected to how to adapt to and mitigate climate change impacts. Focal areas include new emission reduction pathways, adaptation to disasters, reversing loss of natural climate buffers in oceans (e.g. mangroves) and on land (e.g. forests), issues of food security, gender and planning. Existing and future projects involve a range of activities including engaging stakeholders, training workshops, advocating for targeted policy action, mapping and reporting at national and international government and UN levels.



### Major impacts

- Massive global media coverage and awareness
- Initiation of a range of transboundary development programmes in the Himalayas and increasingly in other mountain areas of the world
- Global and regional programmes established to restore and protect other ocean and land carbon binding ecosystems informing and supporting REDD+ to reduce emissions
- Substantial global awareness in UN General Assembly, FAO and country programmes on the role of food waste and environment for global food security

### The road ahead 2014–2017

- Himalayan climate change adaptation programme
- Blue Carbon: The role of ocean and coastal zone restoration in binding carbon
- Black carbon, health and climate change: Threats and opportunities
- Climate change and security
- Arctic and Antarctic climate change: Significance and urgency of threats and opportunities





# Marine and coastal resources

## Mapping the continental shelf and providing basis for natural resource management for development

The continental shelves contain among the greatest natural resources available for development and mapping their boundaries is critical to any future planning. For coastal nations, they also form the very basis not just of minerals and hydrocarbons, but also living resources critical to tourism, fisheries, food security and coastal livelihoods, health and culture. GRID-Arendal's goal is to support countries in the sustainable management of their marine environment.



### Major impacts

- Global media coverage and awareness
- Mapped the continental shelves and engaged with over 60 developing countries providing opportunities for governance and sustainable management of natural resources
- Established sub-regional cooperation between seven coastal states in West Africa based on African ownership, African cooperation and Norwegian technical and financial support
- Introduced blue carbon as an alternative and complimentary pathway to reducing carbon emissions through ocean and coastal restoration, resulting in legislation and investments worldwide
- Facilitated greater international focus on the role of improved waste water and coastal management in developing countries for health, tourism and food security

### The road ahead 2014–2017

- The Continental Shelf Programme: Sovereignty and knowledge of the deep seabed for a sustainable future
- Sustainable Seas Programme: Facilitating partnerships and training to enable developing countries to sustainably manage their ocean spaces
- Blue Carbon: The role of the oceans and restored coastal zones in binding carbon
- Green economy and oceans: Enabling transition towards social-ecological economic development, progress and prosperity







# Environmental crime

## How the rise in transnational organized environmental crime leads to losses in revenues and undermines state security and hence long-term development

Transnational organized environmental crime – involving illegal logging and deforestation, wildlife crime such as poaching of elephants, tigers and rhinos, illegal fisheries, dumping of toxic waste and illegal mining – robs mainly developing countries of an estimated 90-210 billion USD every year – or 1-2 times global Official Development Assistance (ODA). It also threatens state security by increasing corruption, spreading into other crimes, such as arms and drug smuggling and human trafficking. Programme started in 2012.



### Major impacts

- Extensive global media coverage and awareness
- Change in national and international biofuel policies and awareness of the involvement of transboundary organized crime and loss of revenues associated with illegal logging
- Prompted INTERPOL, police and military operations to halt illegal logging in protected areas in several countries, as well as focus from UN REDD, UNODC and INTERPOL to combat organized forest crime behind deforestation
- Helped generate momentum and awareness for CITES decision on reducing illegal killing of elephants and development of country plans

### The road ahead 2014–2017

- Supporting UN REDD in reducing deforestation through project LEAF and ORGFORC with INTERPOL, UNODC, CITES, WCO, UNEP, FAO and UNDP
- Supporting West African nations in reducing illegal fisheries and rise in piracy off West Africa
- Combating wildlife crime in East Africa by training frontline rangers, prosecutors and customs together with UNODC and INTERPOL
- Raising global awareness of the losses and risks associated with the rise in organized crime and illegal exploitation of natural resources





# Transboundary waters

The role of transboundary lakes, basins and river systems for human security, food security, power, transport and peaceful collaboration in Asia and Africa

Transboundary rivers form crucial lifelines for the supply of energy, transport and irrigation for agriculture in many countries. There are more transboundary agreements over water resources than conflicts, providing excellent opportunities for international peaceful collaboration and improved natural resource management.



## Major impacts

- Extensive global media coverage and awareness
- Raised awareness of the role of ecosystem restoration in sustainable development
- Provided environmental overviews of African natural resources for improved management
- Strengthened international collaboration, treaties and transboundary sharing in research and data sharing in the Himalayas-Hindu Kush, Eastern Europe, Central Asia and Eastern Africa

## The road ahead 2014–2017

- African transboundary river systems: Peaceful resource sharing for prosperity, food security and development
- Himalayas-Hindu Kush: Transboundary sharing for development and food security
- Eastern Europe and Central Asia: Environment and security

## About GRID-Arendal



### **Our mission**

Our mission is to support environmentally sustainable development through the United Nations Environment Programme (UNEP) and partners by communicating information that strengthens environmental management capacity and motivates decision-makers to act.

### **Our vision**

Our vision is a society that understands and values the environment on which it depends.

### **Our values**

As a strategic partner and a centre collaborating with UNEP, GRID-Arendal embraces the core values of the United Nations:

- Integrity
- Professionalism
- Respect for diversity
- Environmental commitment

### **Photo credits**

Front cover – iStock/Veni and iStock/Hadnyah  
Adaptation to climate change – iStock/Sasha Radosavljevic  
Marine and coastal resources – iStock/Tammy616  
Environmental crime – iStock/MsLightBox  
Transboundary waters – iStock/Teradat Santivivut  
Back cover – iStock/Coldimage and iStock/RicAguiar



A Centre Collaborating with UNEP

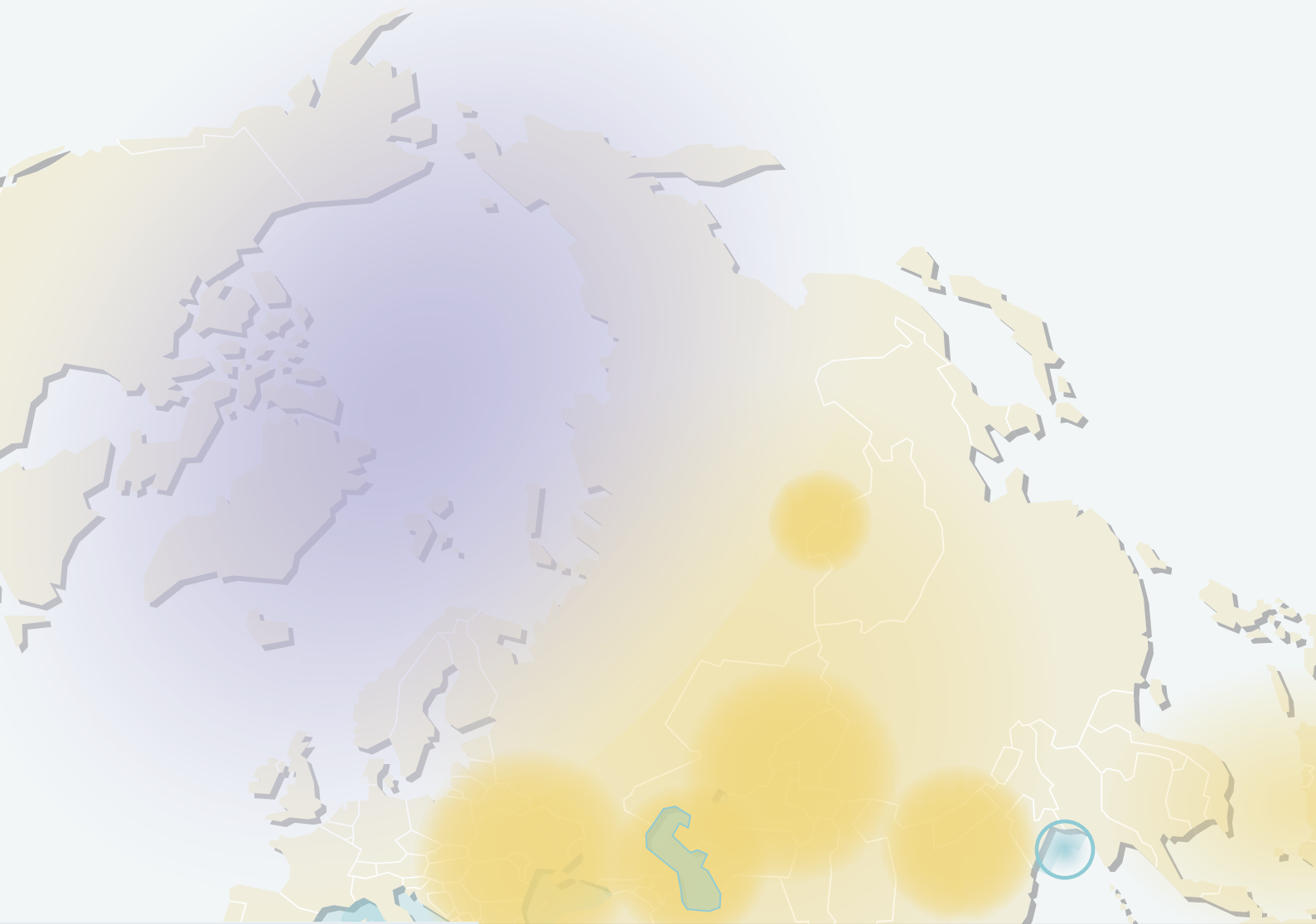
**GRID-Arendal**  
Teaterplassen 3  
N-4836 Arendal  
Norway

Tel: +47 47 64 45 55  
Fax: +47 37 03 50 50  
grid@grida.no  
www.grida.no









**Visiting address:**

Teaterplassen 3  
4836 Arendal  
Norway

**Mailing address:**

P.O. Box 183  
4802 Arendal  
Norway

Telephone: +47 47 64 45 55

Fax: +47 37 03 50 50

E-mail: [grid@grida.no](mailto:grid@grida.no)

Web: [www.grida.no](http://www.grida.no)

