United Nations Environment Programme

Progress Report: First Year of Project Implementation

April 2012 to March 2013

PROJECT GENERAL INFORMATION

Project Title	Global foundations for reducing nutrient enrichment and oxygen depletion from land based pollution, in support of Global Nutrient Cycle
Executing Agency	United Nations Environment Programme
Project Partners	Governments of the Philippines, India, The Netherlands and the USA; IOC/UNESCO; PEMSEA; Chilika Development Authority; Global Environment and Technology Foundation; Netherlands Environmental Assessment Agency; Washington State University, Vancouver; University of Utrecht, The Netherlands; The Netherlands Energy Research Centre ; Institute for Oceans Management, Anna University Chennai; National Centre for Sustainable Coastal Management, India and University of Philippines.
Geographical scope	Global
Participating countries	Philippines and India
Project actual start date	April 2012
Project expected completion data	March 2015

2. PROJECT PROGRESS AND RISK MANAGEMENT

2.1 The project and the key project components

The project document outlined rationales for project intervention on two linked scales; firstly, interventions relating to nutrient over-enrichment and oxygen depletion in defined locations of Manila Bay in the Philippines and Chilika Lake in India. Secondly, at a broader scale, the project addresses issues relating to overall level of excess nutrient use and the resulting dynamics global nutrient cycle and brings them into the domain of public discourse and decision making through the GPNM and other relevant international fora.

The project meets this rationale and associated benefits by setting and seeking to achieve the following objective "*to provide the foundations (including partnerships, information, tools and policy mechanisms) for governments and other stakeholders to initiate comprehensive, effective and sustained programmes addressing nutrient over-enrichment and oxygen depletion from land based pollution of coastal waters in Large Marine Ecosystems".*

This is to be achieved through a number of core project outcomes and outputs, which were referred to in the project rationale and which can be summarized as:

- the development and application of quantitative modelling approaches: to estimate and map present day contributions of different watershed based nutrient sources to coastal nutrient loading and their effects; to indicate when nutrient over-enrichment problem areas are likely to occur; and to estimate the magnitude of expected effects of further nutrient loading on coastal systems under a range of scenarios
- the systematic analysis of available scientific, technological and policy options for managing nutrient over-enrichment impacts in the coastal zone from key nutrient source sectors such as agriculture, wastewater and aquaculture, and their bringing together an overall Policy Tool Box
- the application of the modelling analysis to assess the likely impact and overall cost effectiveness of the various policy options etc. brought together in the Tool Box, so that resource managers have a means to determine which investments and decisions they can better make in addressing root causes of coastal over-enrichment through nutrient reduction strategies
- the application of this approach in the Manila Bay watershed with a view to helping deliver the key tangible outcome of the project – the development of stakeholder owned, cost-effective and policy relevant nutrient reduction strategies (containing relevant stress reduction and environmental quality indicators), which can be mainstreamed into broader planning
- a fully established global partnership on nutrient management to provide a necessary stimulus and framework for the effective development, replication, up-scaling and sharing of these key outcomes.

The key outcomes outlined above are reflected in 4 main operational components: Component A - the global partnership; Component B - the development of the modeling techniques; Component C - the development of the Policy Toolbox and the integration of the tools with the modeling techniques, and Component D - the application of tools and modeling techniques in the Manila Bay watershed to produce actual nutrient reduction strategies both for mainstream adoption in that area, and as a model for the development and application of nutrient reduction strategies in other regions as well as development of an ecosystem health report card through its pilot testing in Chilika Lake of India and eventual replication in Laguna de Bay in the Philippines. Each

component will contribute to overall lessons drawn and potential for replication and up-scaling, which will be disseminated in an inter-active way through the Component A partnership, which continues after project completion to provide sustainability.

In addition to the 4 operational components, two over-arching components are represented by *Component E - monitoring and evaluation effective project co-ordination, and Component F –management and over-sight.*

The expected key outputs defined in the project document and the timelines agreed for delivery of outputs during the inception workshop and approved by the first Project Steering Committee meeting in March 2012 remains valid. The progress in the implementation of activities as of to date have been satisfactory, thanks to mobilization/participation of the key stakeholders in the delivery of outputs. In the subsequent pages detailed outcomes and progress made over the last one year is reported per Component and observations are also noted in case there are any deviations from the planned target as envisaged during the inception workshop.

2.2 Project implementation progress per Components

Component A: Global Partnership on Nutrient Management addressing causes and impacts of coastal nutrient over-enrichment and hypoxia **Budget:** USD 592,000/= (GEF 281,000 + co-finance 311,000)				
Outputs	Progress at the end of reporting period	Implementation status as the end of the reporting period in %	Expected Completion date	If progress is not as planned suggest possible actions and any other comments of interest
Partnership established at global and regional levels with stakeholders fully involved.	GPNM is fully operational with its secretariat at UNEP. GPNM is guided by a Steering Committee that meets regularly, review progress and provides guidance to the secretariat. Secretariat continues to undertake various activities to mobilize support for GPNM. 64 Governments and European Commission participating the GPA IGR-3 through the adoption of Manila Declaration acknowledged GPNM and decided “to support the further development of the Global Partnership on Nutrient Management and associated regional and national stakeholder partnerships, *as well as* their activities, including assessments as agreed by	Global level target reached. Regional targets are yet to be realized in its fullest sense	On track.	No risk foreseen

	the partnership, and sharing of best practices using extension and advisory services for policy makers and farmers" and actively engage themselves and step up their "efforts to develop guidance, strategies or policies on the sustainable use of nutrients so as to improve nutrient use efficiency with attendant economic benefits for all stakeholders, including farmers, and to mitigate negative environmental impacts through the development and implementation of national goals and plans over the period 2012-2016, as necessary". GPNM is one of the outputs to be delivered under expected accomplishments of UNEP Chemical and Waste sub-program work program for 2014-2015, and received UNEP Governing Council's approval. GPNM Asia platform established, and the Caribbean Platform due to launch in May 2013 with support from the Secretariat of the Cartagena Convention (Caribbean Environment Programme Regional Coordination Unit). Discussion in progress with African partners to launch an African Platform			
Establishment of web based partnership platform	GPNM web page is nested within the GPA web site. GPA in the light of the Manila Declaration is fully committed to support and maintain the webpage. A web-based Platform of GPNM is under construction	Progress is around 50%, but the process is on track	Mid-2013	GEF allocated resources has been insufficient
partnership communication strategy	GPNM has produced a foundation document. The soft version of this is in the web while hard copies have been disseminated through various global and regional meetings of significance. A fact sheet on GPMM produced and posted in the web in 2011. The fact sheet has been revised in February 2013 to reflect the development made so far. GPNM in collaboration with its partners organized various sessions in the margin of important global and regional meeting such as GEF IW Conference Oct 2011; GLOC and IGR3 Jan 2012; Rio+20 in June 2012; CBD COP in Hyderabad, India Oct 2012; Global Soil Week in Berlin Nov 2012.	Multiple activities are being pursued. is considering to hire a specialized person on a short-term contract with UNEP resources for communication and advocacy		No GEF resources were allocated. UNEP as the Secretariat has made some resources available

	GPNM partners are publishing articles in newspapers and journals to raise the profile of GPNM and disseminate the key messages in addressing nutrient challenge. Plan to hold special session on Nutrient management during the Global Land-Oceans Connection Conference (GLOC) in October 2013 and a Policy Dialogues focusing on Africa during the International Nitrogen Initiative 2013 Conference in November in Kampala, Uganda.			
Global overview of nutrient over-enrichment/eutrophication/hypoxia – causes, effects etc	A global overview tiled "Our Nutrient World: The challenge to produce more food and energy with less pollution" has been produced. The report was launched during the UNEP Governing Council in February 2013. The report was prepared by 50 scientists from 15 countries. The report wide media coverage in Europe and Asia. The report is posted in the websites of various partners e.g., INI, CEH, LOICZ etc. Public interest for the report is reflected in large number of hits and download of the report from the Web. During the first 10 days over 6000 download recorded only from GPA website.	Delivered	n.a.	n.a
Synthesis report identifying emerging issues and gaps				
Community of Practice targeting GEF nutrient related projects, incorporating eXtension services on agriculture	CoP has been launched through IWLEAR. On eXtension discussion is in progress with Agricultural Training Institute (ATI) Philippines to initiate this.	50%	Target date of delivery late 2013	
Participation at, input to and support for outcomes from GPA inter-governmental review.	A special session was organised during the GPA/IGR-3 in January 2012 in Manila Philippines with participation of governments, industry, science community and UN agencies though the project was then yet to be started.	Done , see above		Plan to hold a special session during the 2nd Global Conference on Land-Oceans

				Connection in October 2013
Participation at and input to GEF International Waters Conferences	A special session was organised during the GEF IW Conference 5, though the project was then yet to be started	Attended the last IW conference.		Plan to hold a special session in the forthcoming IW Conference
Replication and up-scaling of best practices and lessons learnt	Not yet due			
Component B **Quantitative analysis of relationship between nutrient sources and impacts to guide decision making on policy and technological options** **Budget:** USD 1,018,347/= (GEF 453,682 + Co-finance 564,665)				
Outputs	Progress at the end of reporting period	Implementation status as the end of the reporting period in %	Expected Completion date	If progress is not as planned suggest possible actions and any other comments of interest
Overview of existing tools for source-impact analysis of nutrients in LMEs and their target audiences	Undertaken literature review on river export modelling. A scientific paper has been published in the Bio-geosciences titled "Nutrient dynamics, transfer and retention along the aquatic continuum from land to ocean: Towards integration of ecological and biogeochemical models". Literature review of ecosystem models is ***in progress.***			
Global data base development on nutrient loading and occurrence of HABs, hypoxia, and effects on fish landings,	Global NEWS data have been checked, and data are now ready to be released. Aquaculture nutrient emissions have been checked and ready to be released.			

abundance and populations.	Produced a scientific paper on finfish aquaculture titled "Hindcasts and future projections of global inland and coastal nitrogen and phosphorus loads due to finfish aquaculture" has been accepted for publication in Fisheries Science (in press). Global database development with data on coastal conditions, non-land based nutrient sources, as well as coastal effects collected from existing sources is **in progress**.			
Nutrient impact modeling for global and local to regional nutrient source impact analysis	Partners are engaged in data collection and sorting for the modeling exercise	35%		
Development of regional models of nutrient source-impact modeling for the Manila Bay watershed demonstration area to help guide cost effective nutrient reduction planning for the watershed area	Partners have started collected data and map-base database currently being developed. PEMSEA is facilitating data acquisition for the Pampanga watershed. Literature review in progress. Expert group consultation is in progress to select Model. Initial work started using MIKE 11. Digitization of data for the rivers and tributaries of in Pampanga watershed started.	35%		
Contribution of component B modeling and analysis to policy tool development under Outcome C below	First discussion among partners and experts of Compo net B and C held on the design of the Policy Toolbox.	25%		
Regional and national scientists and policy experts, particularly from developing countries, trained in	Partners are communicating through their network and making provisional selection of potential participants	20%		

using nutrients source-impact modeling/analysis				
Nutrient source-impact guidelines and user manuals for integrated eutrophication assessment and nutrient criteria development	Will follow from the above			
Component C: Establishment of scientific, technological and policy options to improve coastal water quality policies in LMEs and national strategy development **Budget:** USD 596,500/= (GEF 294,500 + Co-finance 302,000)				
Outputs	Progress at the end of reporting period	Implementation status as the end of the reporting period in %	Expected Completion date	If progress is not as planned suggest possible actions and any other comments of interest
Global overview &inventory of nutrient reduction best practices	The inventory of best practices currently consists of 334 BMPs from 59 countries and is being evaluated for quality control and efficiency of practices. The American Society of Agronomy is sending a survey to all certified crop advisor members in key developing world countries. The Foreign Agriculture Service of USDA is sending a cable to key developing world posts.	50% complete	June 30, 2013	More information is needed from various partners. We are in touch with them and expect to finalize the delivery of output as planned
Case studies of selected technology and policy options for nutrient over-enrichment reduction	3 cases are complete; IPNI has agreed to provide at least 3 additional cases; ASA is identifying two cases in their outreach; GETF is working on several cases related to nutrient efficiencies	50%	June 30, 2013	Partners are preparing their inputs. Products will be delivered on time
overview and synthesis of policy,	Initial synthesis complete	25%	July 31, 2013	Delay with inventory

technological options, measures and regulations	Discussions with Water Stewardship regarding next steps			completion as above
replication and up-scaling of best practice options, measures etc	In discussions with IWLEARN regarding sessions at the IWC	25%	November 30, 2013	
Policy Tool Box established comprising consolidation and systematic presentation of above outputs from Component C	In discussions with ECN and WRI regarding a way forward	15%	March 2014	
Integration of Policy Tool Box with Component B source-impact modeling and analysis	Initial discussions with Component B	10%	On time for year 3	
Engagement with and training of experts on practical application of Policy Tool Box and source-impact modeling and analysis			On time for year 3	
Component D: Development of nutrient reduction strategies through the application of quantitative source-impact modeling and best practices in the Manila Bay watershed **Budget:** USD 717,500/= (GEF 295,000 + Co-finance 412,500)				
Outputs	Progress at the end of reporting period	Implementation status as the end of the reporting period in %	Expected Completion date	If progress is not as planned suggest possible actions and any other comments of interest

Strengthened information and reporting on nutrient issues in Manila Bay watershed	Based on the "Assessment of the Manila Bay Area Integrated Information Management System" (*annex 1 of PEMSEA progress report)* a two-stage integration workshop was conducted on August 22-24 and September 25-27, 2012 at the PEMSEA Office to establish an integrated IIMS database for the Manila Bay watershed, including the 3 DENR SMOs (Regions 3, 4a and NCR) and two ICM sites (Bataan and Cavite) in the area. The objectives for the two-stage integration workshops are as follows. **Workshop 1 (August 22-24**): To conduct the integration workshop for the Manila Bay IIMS, particularly focusing on - Assigning unique record numbers (geocode) for each table of the IIMS, and - Reclassifying the records based on the new values of the dropdown menus. - Develop a work plan and agree on the timetable for the integration of the databases of the 3 SMOs and 2 provinces in addition to the old Manila Bay database. **Workshop 2 (September 25-27)** objective was to establish an integrated Manila Bay IIMS databases, with server located at the PRF, particularly focusing on: - Importing of renumbered and adjusted records into the IIMS server; - Resolving any issues on redundancy; and - Action plan on the maintenance and updating of the IIMS databases in the Manila Bay area regions ***For details*** see Report on the Workshops on the Integration of the Manila Bay Area IIMS Database (Annex 2 of PEMSEA progress report 1) IIMS Module 2 Training (February 20-22, 2013) conducted to train the IIMS teams of the DENR Site Management Offices, Region 3,4A and NCR and the province of Bataan on IIMS query system. **For details see** Report on the Training, Annex 1 of PEMSEA Progress Report 2. A series of inception workshops conducted on the preparation of the State of the Coast (SOC) Report for Manila Bay. These workshops were held in			

	the provinces of Pampanga (November 29, 2012), Bulacan (December 3, 2013) and Bataan (January 25, 2013). The workshops aimed to: a. Provide an overview of the ICM framework and process and update the members of the TWG on ICM on the progress made on the development of ICM program in Bulacan b. Discuss the benefits of SOC in determining baseline conditions and priorities that can be addressed in the ICM program; c. Discuss the processes of establishing the reporting system and development of SOC baseline report; d. Clarify the roles and responsibilities of the SOC Task Team, and e. Show how the SOC reporting is linked to subsequent activities of the ICM program. For details see Reports on the Inception Workshops, Annexes 2,3,4 of PEMSEA Progress Report No. 2.			
Establishing the foundations for nutrient reduction strategies in the Manila Bay watershed based on source-impact modeling and best practices	Discussion with various government agencies is in progress. Principle agreements have been reached with the following - Department of Environment and Natural Resources, including the Manila Bay Coordinating Office, Environmental Management Bureau - Laguna Lake Development Authority - Pasig River Rehabilitation Commission - Department of Agriculture, including the Bureau of Fisheries and Aquatic Resources, Fertilizer and Pesticides Authority, Bureau of Animal Industry, Bureau of Soils and Water Management, Agricultural Training Institute, National meat Inspection Service - Metro Manila Waterworks and Sewerage System, including Manila Water Company, Inc. and Maynilad Water Services Inc. - University of the Philippines – Marine Science Institute Also participated in a meeting convened by the World Bank (13 August 2012) to review, assess the different on-going and proposed modeling projects in the Manila Bay Area. The meeting was organized to identify areas of duplication or complementation among the different projects in order to maximize or share resources. Hold discussions with the Manila Bay Coordinating Office on linkages of			

	their 2013 work program, particularly in the Updating of the Manila Bay Area Environmental Atlas with the formulation of the nutrient reduction strategies and other related programs and activities. Discussed with the Agriculture Training Institute (ATI), Philippines to undertake a documentation and compilation of the various good practices/lessons learned in nutrient management in the agricultural sector in the Manila Bay watershed, covering chemical fertilizers, animal wastes and aquaculture. Awaiting ATI proposed work plan for this activity. Prepared a concept paper on Updating the Manila bay Area Atlas and Manila Bay Risk Assessment			
Development and application of the final source-impact models for Manila Bay in developing nutrient reduction strategies	In efforts to understand the dynamics of hypoxia and eutrophication in Manila Bay through "Hydrodynamic and Watershed Modeling in support of Component B of the project following activities have been carried out (for details see Annex 4 of PEMSEA progress report). - A bay-wide survey of Manila Bay was completed 28-29 August 2012 onboard the BFAR MCS 3008 vessel headed by Capt. Roy Dela Costa of BFAR with staff from the Philippine Coast Guard. A total of 31 stations were surveyed and water samples collected at 3-4 depths per station. - Laboratory analysis and research work completed on 'dissolved organic carbon analysis. - Attendance in the Asia Oceania Geosciences Society (AOGS) and American Geophysical Union (AGU) Western Pacific Geophysics Meeting 13-17 August 2012 in Singapore. Nutrient analysis of the results of laboratory work on the August 2012 samples was prepared and report indicated the following: - Surface inorganic nitrogen (nitrate + nitrite) was found to be high near the coast of Cavite and Bataan with values ranging from 4 – 8 µM. At the bottom, inorganic nitrogen was highest off Bataan with values ranging from 12.5 – 15 µM but values for the southern part of the bay were mostly high as well, ranging from 6 – 10 µM, which is beyond the ASEAN criterion for nitrate+nitrite of 8 µM.			

	- Surface phosphate was also highest off Bataan and Cavite ranging from 3 – 4 µM exceeding the threshold of 1.45 µM. Most of the surface phosphate values ranged from 1.5 – 2 µM. At the bottom, phosphate values were again highest off Bataan and Cavite at 2.5 – 3 µM. For details see Annex 5 of PEMSEA Progress Report 2. Data gathering will focus into two major rivers Laguna de Bay-Pasig River and Pampanga River in cooperation with DENR. This will be in the light of IIMS presented plus needs of the Modellers Year 2 strategy development with support from Global TraPs and its partners specially to address socio economic issues			
Development and adoption of final, integrated nutrient reduction strategies	Will follow from the results of above noted activities			
development and application in Lake Chilika, Orissa of the ecosystem health report card for effective communication to the stakeholders about nutrient over-enrichment and hypoxia , containing stress reduction and environmental quality status indicators	Two expert group meetings organized with participation of scientists and policy makers from various national agencies, project partners (PEMSEA, Laguna de Bay), regional project (BOBLME) and international partner (University of Maryland Center for Environmental Science. Consensus reached on key indicators for ecosystem health and their threshold values. The old database is being reviewed and analyzed. Additional data are being collected. First report card will be release by June 2013. The proposed ecosystem health report card got endorsement from local stakeholders as well policy makers. The concept was presented to the Chief Minister and Senior Officials of the Odisha Government. The CM has given his approval of the project, indicated his full support, and asked the officials to facilitate this. The National Project Director of Indian ICZM project requested for assistance to replicate this in other coastal States of India.	75%	August 2013	No risk and/or delay foreseen

	The ecosystem report card has been widely reported in several national newspapers of India and also covered by TV channels of Odisha.			
Development and application of ecosystem nutrient health report card to Lake Laguna, Manila Bay	Laguna de Bay Authority OiC attended the Chilika workshop, share experiences and contributed in selection of indicators and defining values. After June 2013 workshop will be organized in Laguna de Bay to start the process there.	20%	October 2013	Is on track
Replication and up-scaling strategy	Will be addressed as planned			

2.3 Action plan to address any project shortcomings.

This section should be completed if project progress was rated MS, MU, U or HU during the previous Project Implementation Review (PIR) or by the Mid-term Review/Evaluation.

Problem(s) identified in previous PIR	**Action(s) taken**	**By whom**	**When**
As of now no marked shortcomings noticed that warrant attention/action			

2.4 Risk management

If internal or external risks were rated as **Substantial** or **High** during the previous Project Implementation Review (PIR) or during the Mid-term Review, please indicate what risk mitigation measures were implemented during the period and with what results:

Risk Statement	Action taken	By who	Date	Result
No risk identified and/or foreseen at this stage of the project implementation.				

3. MONITORING AND EVALUATION

3.1. Please describe activities for monitoring and evaluation carried out during the reporting period

The progress monitoring is done through the periodic consultations among the key project partners and PCU members. The Project Manager maintains close liaison with the Component Leaders. Furthermore, during the reporting period the project partners organised several events at global and regional levels to share experiences among themselves as well as to disseminate the project results to wider community to stimulate dialogues and build consensus in addressing the nutrient challenge.

4. INVENTORY OF STAFF, CONTRACTS, MEETINGS AND OUTPUTS

4.1 Staffing details of Executing Partner (Applies to personnel, experts, consultants paid by the project budget

Functional Title	Nationality	Budget Line (1101, 1102, 1201,1301, etc)
No staff and/or consultant hired under the project budget		

4.2 **Sub-contracts**

Name of Institutions	Address	Budget in USD
UNEP signed Project Cooperation Agreement with four partners as noted below		
IOC/UNESCO	Paris, France	453,682.00
PEMSEA	Manila, Philippines	235,000.00
Chilika Development Authority	Odisha, India	118,000.00
Global Environment and Technology Foundation	USA	244,000.00
The four Partners noted above in turn entered into cooperation agreement with the following institutions for specialized services		
Netherlands Environmental Assessment Agency		
University of Philippines		
Washington State University, Vancouver		
University of Utrecht, Netherlands		
The Netherlands Energy Research Centre		
Institute for Oceans Management, India		
National Centre for Sustainable Coastal Management, India		

Meetings

Meeting type	Title	Venue	Dates	Convened by	Organized by	No. of participants	Report issued Yes/No	Language	Dated
Training workshop during 2011 GEF IW Conference	Nutrient Management Best Practice Training Workshop	Dubrovnik, Croatia	16 Oct 2011	GETF	GETF, GPNM and partners		Yes	English	
Side event during	Global Hypoxia	Dubrovnik,	20 Oct	GETF	GETF,		Yes	English	

2011 GEF IW Conference	Challenges and Nutrient Management Best Practices: Promoting Low Cost Solutions	Croatia	2011		GPNM				
Side event during GLOC	Managing the Global Nutrient Cycle	Manila	23 Jan 2012	UNEP	GPNM and its partners	50	Yes	English	
Project Launch	Launch of GNC project	Manila	25 Jan 2012	UNEP	GPNM and its partners	40-45	No		
Inception and PSC –I meeting	Project Inception and PSC meeting	Manila	27-29 March 2012	UNEP	PEMSEA and UNEP	52	Yes	English	
Side event during Rio+20	Nutrients: For food or pollution? The choice is ours!	Rio de Janeiro	17 June 2012	UN	GPNM and its partners	25	Yes	English	
Workshop	Stakeholder Workshop for the Global Nitrogen Assessment	London	24-25 July 2012	INI/GPNM	INI/ GPNM	19	Yes	English	
Expert group meeting to define indicators for the development of Ecosystem Health Report Card	Expert group meeting to develop indicators to assess coastal ecosystem health	Bhubaneswar Odisha	25-27 June 2012	CDA	GPNM and partners	35	Yes	English	
Workshop	Integration workshop for the Manila Bay IIMS	Manila	22-24 Aug 2012	PEMSEA	PEMSEA and partners		Yes	English	
Workshop	Establishment of an integrated Manila Bay	Manila	25-27 Sep 2012	PEMSEA	PEMSEA and		Yes	English	

	IIMS databases, with server located at the PRF				partners				
Expert group meeting	Attendance in the Asia Oceania Geosciences Society (AOGS) and American Geophysical Union (AGU) Western Pacific Geophysics Meeting	Singapore	13-17 Aug 2012	Asia Oceania Geosciences Society (AOGS)					
CBD COP	The challenge to produce more food & energy with less pollution	Hyderabad, India	18 Oct 2012	UN	GPNM and its partners	20	Yes	English	
Global Soil Forum	A Dialogue session titled "Nutrient for Food or Pollution?"	Berlin, Germany	20 Nov 2012	Institute for Advance Sustainability Studies (IASS), Potsdam	GPNM and its partners	35-40	Yes	English	
Workshop	Inception workshop for the development and implementation of the SOC reporting system.	Pampanga, Philippines	29 Nov 2012	PEMSEA	PEMSEA	26	Yes	English	
Workshop	Inception workshop for the development and implementation of the SOC reporting system in Bataan.	Bulwagan ng Bayan II, Provincial Capitol, Balanga City	25 January 2013	PEMSEA	PEMSEA	72	Yes	English	
Expert group meeting	Defining indicators and thresholds for Chilika Lake Ecosystem health Report Card	Bhubaneswar Odisha	4-7 Feb 2013	CDA and NCSCM	NCSCM	30	Yes	English	

Name and contact details of meeting participants

Type of meeting	Name	Institutions

Documents, other printed materials, videos, and soft products (such as CDs or websites)

Nature of the product	Product title	Authors(s)	Publishers	ISBN or relevant web address	Publication Date
News Article	Assistance Needed to Gather Global Best Management Practices	Chuck Chaitovitz	Community Supported Agriculture		Dec 2011
Journal Article	Nutrient dynamics, transfer and retention along the aquatic continuum from land to ocean: Towards integration of ecological and biogeochemical models	Bouwman et al	Bio-geosciences	www.biogeosciences.net/10/1/2013/ doi:10.5194/bg-10-1-2013	23 January 2013
Report	Our Nutrient World: The challenge to produce more food and energy with less pollution	Sutton et al	CEH	ISBN: 978-1-906698-40-9	February 2013
Journal Article	Hindcasts and future projections of global inland and coastal nitrogen and phosphorus loads due to finfish aquaculture	Bouwman et al	Reviews in Fisheries Science (forthcoming)		
Journal Article	Global trends and uncertainties in terrestrial denitrification and N2O emissions	Bouwman et al	Submitted to Philosophical Transactions. Royal Society. Trans. R. Soc. B - Issue	http://mc.manuscriptcentral.com/issue-ptrsb	
Journal Article	The global nutrient challenge: from science to public engagement	Sutton et al	Submitted to SCOPE Newsletter (forthcoming)		