PUBLIC AND PRIVATE BIODIVERSITY EXPENDITURE REVIEW

The Biodiversity Finance Initiative (BIOFIN) – PHILIPPINES

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LIST OF ACRONYMS

4Ps	Pantawid Pamilyang Pilipino Program
ABS	Access and Benefit Sharing
AFE	Agriculture and Fisheries Education
AFMA	Agriculture and Fisheries Modernization Act
AFP	Armed Forces of the Philippines
ARNP	Apo Reef National Park
BIOFIN	Biodiversity Finance Initiative
BMB	Biodiversity Management Bureau
BPI	Bureau of Plant Industry
BRF	Biodiversity Relevance Factor
BSWM	Bureaus of Soils and Water Management
CBD	Convention on Biological Diversity
CCC	Climate Change Commission
CHED	Commission on Higher Education
CITES	Convention on International Trade in Endangered Species
CLSU	Central Luzon State University
COA	Commission on Audit
CPEIR	Climate Public Expenditure and Institutional Review
CSO	Civil Society Organizations
CSR	Corporate Social Responsibility
DAR	Department of Agrarian Reform
DBCC	Development Budget Coordinating Committee
DBM	Department of Budget and Management
DBP	Development Bank of the Philippines
DENR	Department of Environment and Natural Resources
DEPED	Department of Education
DFA	Department of Foreign Affairs
DILG	Department of Interior and Local Government
DND	Department of National Defense
DOE	Department of Energy

DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTC	Department of Transportation and Communication
DPWH	Department of Public Works and Highways
DTI	Department of Trade and Industry
ECAN	Environmentally Critical Areas Network
EMB	Environmental Management Bureau
ERDB	Ecosystems Research and Development Bureau
FASPO	Foreign Assisted and Special Projects Office
FMB	Forest Management Bureau
FNRI	Food and Nutrition Research Institute
GAA	General Appropriations Act
GASS	General Administration and Support Services
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GOCCs	Government Owned and Controlled Corporations
HEI	Higher Education Institutions
HLURB	Housing and Land Use Regulatory Board
IAS	Invasive Alien Species
ICRMP	Integrated Coastal Resource Management Project
IIED	International Institute for Environment and Development
IP	Indigenous People
IPO	Intellectual Property Office
IPRA	Indigenous Peoples' Rights Act
IRA	Internal Revenue Allocation
ISPs	Industry Strategic Plans
LBP	Landbank of the Philippines
LGC	Local Government Code
LGU	Local Government Unit

LMB	Land Management Bureau
MB	Monetary Board
MET	Ministry of Environment and Tourism
MFO	Major Final Outputs
MGB	Mines and Geosciences Bureau
MMDA	Metro Manila Development Authority
MOF	Ministry of Finance
MOOE	Miscellaneous and Other Operating Expenses
MTPDP	Medium Term Philippine Development Plan
MWSS	Metropolitan Waterworks and Sewerage System
NABCOR	National Agribusiness Corporation
NAFES	National Agriculture and Fisheries Education System
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NAST	National Academy of Science and Technology
NBSAP	National Biodiversity Strategic Action Plan
NCCA	National Commission on Culture and the Arts
NCCAP	National Climate Change Action Plan
NCIP	National Commission on Indigenous People
NDRRMC	National Disaster Risk Reduction Management Council
NEDA	National Economic and Development Authority
NEDA PIDS	NEDA - Philippine Institute for Development Studies
NFIDP	National Fisheries Industry Development Plan
NGAS	New Government Accounting System
NGOs	Non-government Organizations
NGP	National Greening Program
NHC	National Historical Commission
NIPAS Act	National Integrated Protected Areas System Act
NOAP	National Organic Agriculture Program
NRCP	National Research Council of the Philippines
NWRB	National Water Resources Board
OBAs	Off Budget Accounts

ODA	Official Development Assistance
OPIF	Organizational Performance Indicator Framework
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAGCOR	Philippine Amusement and Gaming Corporation
PAME	Protected Area Management Effectiveness
PBE	Philippine Business for the Environment
PBSAP	Philippine Biodiversity Strategy and Action Plan
PCAARRD	Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development
PCAFNR	Philippine Council for Agriculture, Forestry & Natural Resources Research
PCAMRRD	Philippine Council for Aquatic and Marine Resources Research and Development
PCHRD	Philippine Council for Health Research and Development
PCSD	Philippine Council for Sustainable Development
PCSD	Palawan Council for Sustainable Development
PCSO	Philippine Charity and Sweepstakes Office
PEER	Public Environmental Expenditure Review
PEI	Poverty Environment Initiative
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PER	Public Expenditure Review
PHILRICE	Philippine Rice Research Institute
PIA	Philippine Information Agency
PLGU	Provincial Local Government Unit
PNP	Philippine National Police
PPBER	Public and Private Biodiversity Expenditure Review
PSF	People's Survival Fund
RA	Republic Act
RBPMS	Results-Based Performance Management System
SA	Sustainable Agriculture
SAOB	Statement of Allotments and Obligations
SEI	Science Education Institute
SEP	Strategic Plan for Palawan
SLP	Sustainable Livelihood Program

SPFs	Special Purpose Funds
STO	Support to Operations
TEV	Total Economic Value
UNCLOS	United Nations Convention on the Law of Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WWF	World Wildlife Fund

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Executive Summary

The Philippines is described by the Convention on Biological Diversity as … "*one of 18 mega-biodiverse countries of the world, containing two-thirds of the earth's biodiversity and between 70% and 80% of the world's plant and animal species. The Philippines ranks fifth in the number of plant species and maintains 5% of the world's flora. Species endemism is very high, covering at least 25 genera of plants and 49% of terrestrial wildlife, while the country ranks fourth in bird endemism. The Philippines is also one of the world's biodiversity hotspots with at least 700 threatened species, thus making it one of the top global conservation areas …"* Ecosystem services derived from the Philippines' biodiversity provide water, food, pharmaceuticals, hydropower and biomass energy, pollination, carbon sequestration, ecotourism and a host of cultural, intellectual and spiritual services. Yet, the continued decline in the quantity and quality of biodiversity resources remain unabated. Among the proximate causes are policies, which promote perverse actions including short-term trade-offs of financial gain versus long-term sustainable use and social drivers such as poverty and population pressure.

The Philippines Biodiversity Strategy and Action Plan (PBSAP) is the country's roadmap to conserve its biodiversity and achieve its vision - *"By 2028, biodiversity is restored and rehabilitated, valued, effectively managed and secured, maintaining ecosystem services to sustain healthy, resilient Filipino communities and delivering benefits to all."* Containing more than 100 actions across 8 thematic sectors, the PBSAP will require not only adequate financing but a policy and institutional regime that will address inefficiencies and incompatibilities between allocation and budget execution. The financing issue is seen as key towards arresting the continued decline of biodiversity resources, conserving what remains, promoting a regime of sustainable production and consumption, and enhancing appreciation, knowledge and capacities to implement a long term plan.

BIOFIN is a new global partnership seeking to address the biodiversity finance challenge in a comprehensive and systematic manner which aims to enable governments to construct a sound business case for increased investment in the sustainable and equitable management, protection and restoration of biodiversity and ecosystems. BIOFIN promotes a methodology towards development of financial solutions that includes a policy and institutional review, a public and private expenditure review, and a financial needs assessment. This report is the Public and Private Expenditure Review (PPBER) for the Philippines. In a nutshell, this PPBER estimates baseline funding for biodiversity, determines institutions that are currently spending for biodiversity, and develops future spending scenarios.

Taking off from the key findings of the Policy and Institutional Review of the BIOFIN Method, this PPBER revisits and expands the institutional profile of public sector agencies that contribute to PBSAP implementation and/or marked as contributing to the 20 Aichi targets. Using time series data across all agencies, budget data was collected and tagged using a Biodiversity Relevance Factor (BRF), developed specifically by BIOFIN Philippines. This BRF is an index that emerged from the costing of the NBSAP with a relational tagging to the Aichi targets.

Based on an analysis of time series of budgets from 2008-2013 among agencies contributing to the 20 Aichi targets, the baseline financing for biodiversity in the Philippines was estimated at PHP 5 billion (or USD 110 million). The baseline financing for biodiversity represents 0.08% of GDP and 0.31% of the national budget for this period of analysis. From 2008-2013, the budget of the DENR was observed to be increasing at the rate of 23% per year. The biodiversity budget has been

increasing at a faster rate of 34% per year for the same period, although it's contribution to total budget is less than 20% of the total. Opportunities to increase funding through realignment of budgets, propped by effective mainstreaming amongst core and non-core biodiversity agencies, exist and shall guide future BIOFIN interventions in the Philippines. In the DENR alone, budget allocation for biodiversity can increase from 4% to 16% by mainstreaming with other bureaus such as the Forest Management Bureau and the Ecosystems Research and Development Bureau.

Local governments contribute PHP 0.5 billion pesos or USD 13 million based on protected area expenditures alone. Current funding levels for local governments comprise an average of 4% of the 20% development fund-representing share of national taxes. Since the implementation of NBSAP actions is at the local level, an increase in local government spending is essential either by increasing current allocation and expenditures, generating revenues, mainstreaming into other sectors, and achieving efficiencies such as through inter local government collaboration.

While some attempts have been made to estimate the contribution of the private sector, including both non-governmental organizations and the corporate sector, the small sample size and the unknown population frame, did not allow further extrapolation.

Another key insight emerging from the PPBER work is the lack of understanding for biodiversity (and necessarily biodiversity expenditure) as confirmed by the results of the Personnel Survey. There is some noticeable divergence between personnel perceptions on their biodiversity-related functions vis-à-vis institutional mandates as defined by policy. Some basic guidance on biodiversity actions is required and linkages (as well as nuances) with climate change and environment need to be established. Thus, in terms of BIOFIN Interventions, the sequence should begin with a) better understanding of biodiversity; b) tagging of biodiversity expenditures; and c) realignment of budgets

The completion of the PPBER for the Philippines fulfilled its objective of estimating baseline funding levels for biodiversity, determine sources and levels of funding, and provided funding projections based on various investment and mainstreaming scenarios. Also from a practical perspective, the PPBER work allowed the Philippines to utilize the numbers for financial reporting to CBD. Finally, the consultations organized in the course of implementing the PPER supported a socialization process for the PBSAP; allowed a greater awareness of the importance of biodiversity; and contributed to an incipient network of institutions who have signified their interest in implementing PBSAP.

Next steps arising from this review include the mainstreaming and formalization of the biodiversity tagging process within the core and non-core biodiversity agencies as well as with local governments. Biodiversity tagging is proposed as one of the essential actions to be supported by policy development, a knowledge management platform, and M and E system. Due to the substantial contribution of local governments and the currently low funding levels for biodiversity, BIOFIN proposes to increase funding at the local level through realignment, increased access to earmark funds, or through generation of revenues on site. Lastly, developing a menu of programs that includes site-based opportunities for private investments and clearer institutional arrangements for public private partnership are considered essential towards sustaining private sector interest.

I. BACKGROUND AND FRAMEWORK OF ANALYSIS

1.1 Introduction

Biodiversity matters to the Philippines. Ecosystem services derived from the Philippines' biodiversity provide water, food, pharmaceuticals, hydropower and biomass energy, pollination, carbon sequestration, ecotourism and a host of cultural, intellectual and spiritual services *(PBSAP in press).* Yet, the continued decline in the quantity and quality of biodiversity resources remain unabated. Among the proximate causes are policies, which promote perverse actions including short-term trade-offs of financial gain versus long-term sustainable use. Social drivers such as poverty and population pressure pose major challenges. Another compelling reason is the lack of financing. The financing issue is seen as key towards arresting the continued decline of biodiversity resources, conserving what remains, promoting a regime of sustainable production and consumption, and enhancing appreciation, knowledge and capacities to implement a long term plan.

Parties to the Convention on Biological Diversity (CBD) agree that a significant gap remains in finance for biodiversity management. Conference of Parties (COP) 12 Decision XII/3 provides specific recommendations consistent with the conduct of the PPBER, as follows:

> *"(c) Endeavour for 100 per cent, but at least 75 per cent, of Parties provided with adequate financial resources to have reported domestic biodiversity expenditures, as well as funding needs, gaps and priorities, by 2015, in order to improve the robustness of the baseline;"*

It is amidst this backdrop that the United Nations Development Programme (UNDP) launched the Biodiversity Finance Initiative (BIOFIN) in October 2012. BIOFIN is a new global partnership seeking to address the biodiversity finance challenge in a comprehensive and systematic manner which aims to enable governments to construct a sound business case for increased investment in the sustainable and equitable management, protection and restoration of biodiversity and ecosystems[1]. At present, 30 countries are included in the BIOFIN project[2]. Using a series of guidance materials including the BIOFIN workbook, BIOFIN supports countries to launch a national process to restructure the way biodiversity is financed, following an evidence based approach that includes conducting a biodiversity finance policy and institutional review (workbooks 1a and 1b); conducting a public and private biodiversity expenditure review (this report); costing the National Biodiversity Strategy and Action Plan (NBSAP) and estimating the financing gap (Workbooks 2a and 2b); and lastly, develop and implement a biodiversity financing plan / resource mobilization plan (Workbook 3).

BIOFIN Philippines has completed the Policy and Institutional Review as well as the Costing of the NBSAP. This report comprises the Public and Private Biodiversity Expenditure Review (PPBER).

[1] The BIOFIN Workbook, 10 February 2014 (version 7.0).

[2] Includes 19 core countries comprising (Botswana, Chile, Colombia, Costa Rica, Ecuador, Fiji, Guatemala, India, Indonesia, Kazakhstan, Malaysia, Mexico, Peru, Philippines, Seychelles, South Africa, Thailand, Uganda, and Zambia) and eleven others in various stages of initiation and implementation.

1.2 The BIOFIN Public and Private Biodiversity Expenditure Review

As part of the BIOFIN methodology, the PPBER estimates baseline funding levels for biodiversity and projects an estimate of future expenditures consistent with the time frame used in the costing of the NBSAP under a variety of scenarios. By comparing projected financing with the finance needs of the NBSAP, this procedure enables an estimate of financing gaps for the entire implementation period of the NBSAP allowing for better programming and investment planning.

The BIOFIN Methodology offers a generic PPBER process, as follows:

- Analyze macro government budgets and expenditures
- Analyze institutional profile of biodiversity stakeholders
- Analyze budget and expenditure of biodiversity stakeholders at an appropriate level of disaggregation (programs/projects/activities)
- Establish a database for organizing such information
- Derive baseline funding for each strategy group.

The following definitions are used in this report:

- **Overall expenditure:** The overall total expenditure, whether for biodiversity or other categories, that a finance actor spends in a given year.
- **Biodiversity-related expenditure:** Any expenditure, whether by a public or private finance actor, that supports the conservation, sustainable use and/or equitable benefits sharing of biodiversity in a given year.
- **Actual attributed biodiversity expenditure:** The degree to which an overall expenditure can be counted as a biodiversity expenditure; the degree to which an expenditure promotes the conservation, sustainable use and/or equitable benefits sharing of biodiversity.

The BIOFIN workbook also proposes analyses of "*Effectiveness of expenditure*" and "Biodiversity-harmful Expenditures". The former is defined as the degree to which the expenditure achieves the specific intended results in a cost-effective and efficient manner (e.g., ineffective tree planting efforts). Biodiversity-harmful expenditures include those direct and indirect expenditures that are in opposition to the national biodiversity objectives, and/or to the conservation, sustainable use and equitable sharing of the benefits of biodiversity (e.g., expenditures that promote planting of invasive alien species, and subsidies that promote overuse of chemical pesticides and fertilizers). This report is able to provide some indications of efficiency of spending by analysing appropriations or budgets relative to actual spending. While not wholly related to efficiencies in attaining the biodiversity goals, the analysis of actual spending vis-à-vis budgets relate to the institutional capacities (planning, execution, coordination) which have a critical implication on long term financing for biodiversity, in general. On the other hand, analysing biodiversity harmful expenditures will (i) require further analysis on specific policy impacts on biodiversity indicators; and (ii) political commitment towards addressing a particularly perceived harmful expenditure.

BIOFIN Workbook 1a provides the basis for conducting a PPBER by identifying policies and institutions that impact on biodiversity (both positively and negatively) as well as those that can be tapped for financing. One of the key results of the BIOFIN Policy and Institutional Review is the identification of key economic sectors, their impacts on biodiversity, and assignment of roles to relevant institutions. For the most part, the policy recommendations have been validated and/or included in the Philippines NBSAP in order to ensure further action. In addition to the PIR results, the consultative process of PBSAP resulted in a matrix of institutions and stakeholders contributing to the 20 Aichi targets. Coupled with the policy analysis, the institutional analysis spells out the biodiversity mandates of primary and secondary government institutions, and is utilized in this activity in the estimation of the Biodiversity Relevance Factor (BRF) to be explained further in the

methodology section.

A good understanding of the budgeting process also puts into perspective the opportunities and challenges in securing funding for biodiversity and can provide insights into pivot points in devising the financing plan; thus, a section of this report describes the budgeting process in the Philippines.

1.3 Structure of the Report

A scan of available PPBERs on biodiversity and /or environment was first done to cull learnings, processes, and implementation issues (Section B). Section C uses the PBSAP and Aichi Targets as framework; the agencies, which were identified, to contribute to both are summarily described with specific focus on their biodiversity-relevant mandates. This is done as a prelude to estimation of spending. The budgeting process is outlined in Section D in order to provide a context on how budgets for biodiversity programs are formulated, executed and reported. Major components of the budget are also discussed to provide a broad information base on the spending priorities but also to identify potential sources of funding. Similarly, off-budget accounts are also discussed less in the context of accountability but more for its potential as revenue sources.

Section E explains the methods used, data sources, and limitations of the report. Section F presents the main results and findings of the PPBER and begins by providing a description of the macro environment and economic parameters crucial to the budgeting / spending process. This is followed by estimation results from all national agencies, local governments and finally, private sector, to be capped by an analysis of the results and conclusion/recommendations.

1.4 Biodiversity expenditure reviews

Biodiversity expenditure reviews belong to a category of expenditure reviews focusing on the environment (International Institute for Environment and Development (IIED), undated; World Bank, 2008; Mendoza, 2013), which have largely been focused on public expenditures, revenues, and subsidies. The common scope of expenditure reviews may work around the following questions:

a. Where does the money come from?
b. Where does the money go?
c. What does it buy?
d. How could spending be improved?

The most important base of experience to date on similar expenditure reviews comes from the application of environmental expenditure reviews. IIED (undated) emphasizes the contribution of Public Environmental Expenditure Reviews (PEERs) towards policy reforms especially when mismatches between spending and priorities are observed. Swanson and Lunderthors (2003), as referenced in IIED (undated) analyzed 10 countries which have undergone PEERs and compared the reports on the basis of (i) purpose; (ii) definition of environmental expenditure; (iii) scope; and (iv) period covered, among others. Tracking funds or determining baseline financing was identified for two of the ten countries (Ukraine and Mongolia) while the others had specific objectives in undergoing the PPBER, i.e., determining the impact of the Asian financial crisis. Definition of environmental expenditures for four of the ten countries analyzed was not explicit, further highlighting the difficulty of segregating environmental expenditures.

In the case of Namibia's Environmental Expenditure Review, the main objective of the study was to assist the Government in the implementation of Ministry of Environment and Tourism (MET)'s

Strategic Plan as well as in reinforcing its dialogue with the Ministry of Finance (MOF) and the development partners (World Bank 2008). Because the PEER focused on one agency only, i.e., the MET, detailed assessments of spending, budget execution, and sources of financing, was accomplished at the agency and sub-agency level. The Namibia study observed fluctuating trends in appropriations for the MET from 2001/2002 to 2007/2008 and compared spending with other national agencies such as the Ministry of Water, Agriculture and Forestry, as well as with other country comparators. Personnel expenditures comprise 48% of spending from 2001/2002 to 2005/2006 resulting to underfunding of maintenance and other operating expenses. Off-budget items such as official development assistance tend to distort the picture of planned and actual expenditures in the sector and raises questions on sustainability of funding in the sector given government underspending as compared to donors.

Markandya et al (2006) enumerates common features of PEERs that include analysis of levels and trends in environment spending; disaggregation of spending by type of activity; and determination of linkages to policy priorities. Fiscal decentralization and sources of revenues were also covered in said report. Summary results of PEERs are found in Box 1.

Box 1. Illustrative outcomes of PEER (Markandya et al 2006)

- Madagascar : highlighted a financing gap for the protected area system and its 50% dependence on aid, and on the other hand how it could become a net source of government revenue through ecotourism fees;
- Ukraine : rationalized the many hundreds of separate environmental funds; reduced overall administrative costs;
- Tanzania : demonstrated the value of environmental investment for livelihoods, and increased the environment authority's (then very low) budget by five times;
- Colombia : compared current expenditure to the results of a stakeholder survey of upcoming priorities, thereby providing the justification for a major World Bank 'Sustainable Development Policy Loan';
- Mozambique – the PEER demonstrated that environmental expenditure was only 0.9% of GDP and identified very weak links between environmental policy and actual budgets.

Important lessons can also be drawn from prior work in the Philippines. In 2013, the UNEP/UNDP managed Poverty Environment Initiative (PEI) carried out a Public Environmental Expenditure Review through an extensive review of budgets and other financial reports of a number of government agencies in. The analysis aimed to find out how government spending had contributed to environmental and poverty outcomes and to explore the manner by which the level of environmental expenditure data could be incorporated in the Medium Term Expenditure Framework (Mendoza 2013). The report summarized five constraints in the conduct of expenditure reviews in the Philippines: (a) absence of a definition for public environmental expenditures; (b) fragmented information on environmental expenditures; (c) "embedded" or "hidden" environmental domains for budgeting and financial reporting; (d) undefined links to environmental improvements; and (e) diffused links to poverty outcomes. Neither the Department of Budget and Management (DBM) nor the Commission on Audit (COA) could offer any account item in their charts nor in the financial statements submitted that could identify environmental expenditures. The constraint on the definition of public environment expenditures becomes even more pronounced in the case of "biodiversity" which requires further articulation beyond "environment".

A second major source of experiences come from a recently conducted series of climate related expenditure reviews. Compared to the broader environmental expenditure review the Climate Public Expenditure and Institutional Review (CPEIR) study in the Philippines benefitted from strong policy and institutional support. First, the Climate Change Act (Republic Act 9729) was enacted by Congress mandating government agencies to mainstream climate change into policies, plans and programs. Anent to this policy, a National Climate Change Action Plan (NCCAP) was prepared spanning three 6-year phases from 2011-2028. Climate change is recognized as one of five expenditure priorities of the government or President Aquino's Social Contract. As such, agencies were encouraged to identity programs/activities/projects (PAPs) related to climate change adaptation and mitigation and identify such in their budget proposal submissions. Sufficient

definitions of climate adaptation and mitigation and applications to PAPs are found in the joint circular of the DBM and the Climate Change Commission; yet, some inconsistencies in applications were still observed.

The CPEIR report observed generally increasing trends in appropriations from 2008-2012 with domestic sources of financing comprising 82% of funding for the DPWH, DENR, DOE and PAGASA (GAA, Special Purpose Funds, and Special Accounts in General Funds). Despite increasing appropriations by more than 200% from 2008-2012, actual allocations or expenditures only averaged 38% indicating opportunities for establishing efficiencies and effectiveness. Among the major climate change strategies, flood control programs of the DPWH garnered the largest share of the budget.

II. WHO SPENDS ON BIODIVERSITY: INSTITUTIONAL PROFILE

This section is a supplement to the institutional review conducted under BIOFIN Policy and Institutional Review (PIR, Workbook 1B) and broadens the coverage of those agencies and actors, which have been identified as contributing to the PBSAP and the 20 Aichi targets. The PIR resulted in a listing of agencies that are affected by practices that impact on biodiversity. Eight sectors with significant contributions to national income and agencies responsible for changing current practices were identified through a series of consultations (Annex 1). This section expands the analysis of the PIR by identifying and describing institutions with a role in biodiversity in the Philippines, some of which perform a more direct role than the others, albeit contributing to biodiversity expenditures.

First covered are national agencies categorized according to the main economic sectors addressed in the national budgeting processes: (i) environmental agencies (ii) key economic sectors such as agriculture, fisheries and agrarian reform, public works, tourism and trade and industry; (ii) social services sector, including social welfare, education, research and science; (iii) defense sector, namely the armed forces and police force; and lastly, (iv) general public services sector, which includes finance, budget, planning, foreign affairs, justice department, and the climate change office.

2.1 Economic sectors

Environment agencies

The DENR is mandated to be the primary government agency responsible for the conservation, management, development and proper use of the country's environment and natural resources, including those in reservations, watershed areas and lands of the public domain, as well as the licensing and regulation of all natural resources utilization as may be provided by law in order to ensure equitable sharing of the benefits derived therefrom for the welfare of the present and future generations of Filipinos. The DENR has 16 regional offices; four staff agencies including the Biodiversity Management Bureau (BMB), the Land Management Bureau (LMB), the Forestry Management Bureau (FMB), and the Ecosystems Research and Development Bureau (ERDB); and two line agencies, namely the Environmental Management Bureau (EMB) and the Mines and Geosciencies Bureau. Line bureaus have their own regional staff while staff bureaus are focused on policy making and do not have their own staff at the regional level. Included also within the DENR family of agencies are the "attached" agencies, which include the Palawan Council for Sustainable Development (PCSD), the National Water Resources Board (NWRB), and the National Mapping, and Resource Information Agency (NAMRIA).

The PPBER examined the budget and expenditure of four staff bureaus enumerated above, the two line bureaus, and one attached agency, i.e., the PCSD. The Biodiversity Management Bureau as well as the three other staff bureaus, the Forest Management Bureau (FMB), the Lands Management Bureau (LMB), and the Ecosystems Research and Development Bureau. The two line agencies included in the study are the Environmental Management Bureau (EMB) and the Mines and Geosciences Bureau.

The FMB is tasked to implement the National Greening Program (NGP), one of the key priorities of the Aquino administration, which intends to rehabilitate 300,000 hectares of denuded forests nationwide, produce 164,648,538 seedlings, and maintain and protect 800,000 hectares of previously established plantations. All operations of FMB were considered eligible for biodiversity

spending including (i) Management of forestlands and forest resources; (ii) forest development which includes planting of indigenous species; (iii) forest protection; (iv) community based forestry program; (v) soil conservation and watershed management; and (vi) forestry boundary delineation[3].

The Ecosystems Research and Development Bureau (ERDB) is the principal research and development (R & D) unit of the Department of Environment and Natural Resources (DENR). Its R & D and extension activities are focused on the five major ecosystems of the Philippines, which include forests, upland farms, grassland and degraded areas, coastal zone and freshwater, and urban areas. ERDB contributes to the implementation of the NGP through the production of quality seedlings, especially of indigenous species, establishment and maintenance of clonal nurseries in coordination with state colleges and universities, database maintenance, baselining of NGP sites, and policy support. A scan on on-going researches of ERDB illustrates its biodiversity focus, to wit: (1) forest ecosystems resiliency and sustainability; (2) ecosystem dynamics and sustainable management of freshwater and coastal ecosystems; and (3) promoting ecosystems health in urban areas[4].

The LMB's main functions are: (i) implement Cadastral Survey to complete data on land resources and facilitate disposition, settlement and claims, and zoning and programming; (ii) disposition and use of foreshore and reclaimed lands; and (iii) formulation and monitoring of environmental and natural resources sector policies. Through these main functions, it becomes apparent how the LMB can contribute, both positively and negatively, to biodiversity because its survey functions provide critical information on zoning while its function towards disposition of foreshore and reclaimed lands have been an oft-mentioned issue in integrated coastal management.

The MGB's mandates are the administration and disposition of the country's mineral land resources and ensuring consistency with the commitments in the Medium Term Philippine Development Plan (MTPDP). An analysis of the mandates of the MGB shows that one division, the "Mining Environment and Safety Division" provides scientific and technological guidelines in establishing environmental standards (including those of small scale mining), and includes mine rehab and pollution thresholds, environmental audits, and develops strategies for a comprehensive environmental protection program. EMB's mission is to manage the environment through close monitoring of potential sources of pollution and mitigate impacts to health and the environment. A review of the main policies implemented by the EMB indicates the breadth of its role in biodiversity management, to wit: the Environmental Impact Statement System; Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990; the Clean Air Act; the Clean Water Act; the Ecological Solid Waste Management Act; and the Environmental Awareness Act. In addition, the EMB is the focal agency for various international conventions including the Kyoto Protocol, Montreal Protocol, and Vienna Protocol. EMB performs regulatory functions, policy work, and quasi-judicial functions through the Pollution Adjudication Board.

The NAMRIA is mandated to provide the public with mapmaking services and to act as the central mapping agency, depository, and distribution facility for natural resources data in the form of maps, charts, texts, and statistics. A vital function of NAMRIA involves the delineation of the national maritime jurisdiction in accordance with the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) and conduct of hydrographic, bathymetric, oceanographic, and geophysical surveys wherein marine geographic information are presented in the form of nautical charts, bathymetric maps, thematic maps, tide and current tables, and special maritime publications – which are essential for marine environment research. The NAMRIA is tasked to implement the Unified Mapping Project, which aims to produce topographic maps for the 18 major river basins that will serve as inputs to hazard mapping for disaster risk reduction and management.

Another attached agency of the DENR is the NWRB, which is mandated to implement the "Clean Water Act". Among its functions are: (i) issuance of water permits; (ii) promulgate rules for

[3] Discussions with the FMB on application of biodiversity relevance factor resulted to a 25% relevance factor for the NGP given its utilization of non-native species and its overall aim towards plantation forest rather than native forests.

[4] http://erdb.denr.gov.ph/index.php/rde-activ/ongoing

the coordinated development, protection and utilization of ground and surface waters; (iii) establish minimum stream flows for rivers and streams and minimum water levels for lakes as may be necessary for the protection of the environment, control of pollution, navigation, prevention of salt damage, and general public use; (iv) Issue permits for development of streams, lakes or springs for recreational purposes; (v) Issue permits for drilling of wells; (vi) Issue rules and regulations for reservoir operations, among others. NWRB is assisted by deputized agents all over the country including district engineering offices of the DPWH, provincial irrigation engineering offices, regional managers of the National Power Corporation, and general managers of water districts.

Lastly, the PCSD is the main implementor of the Strategic Environmental Plan for Palawan (SEP) Law, a national law, with specific coverage in the province of Palawan. The SEP framework uses the environmentally critical areas network (ECAN) which is a graded system of protection and control over Palawan's natural resources. PCSD also implements the Wildlife Act, the Chainsaw Act, and the Caves Act. Within the province's jurisdiction are at 7 national protected areas.

Agriculture, fisheries and agrarian reform

The Department of Agriculture (DA) includes the Bureau of Plant Industry (BPI) and the Bureau of Soil and Water Resources Management (BSWM). Under Republic Act 7308, otherwise known as the Seed Industry Development Act, the BPI is responsible for the approval and registration of crop varieties while the "Plant Quarantine Decree of 1978" governs the inspection, classification and grading of imported and exported plants and plant products prior to issuance of Phytosanitary Certificate. Similarly, imported commodities undergo verification of documentary requirements, inspection, further examination in the laboratory, and treatment, if necessary. Domestic Plant Quarantine, on the other hand, mainly focuses on the restriction on the movement of infected and/or infested plants and plant parts/products from one locality to another within the country. These functions are critical to the program on preventing entry of Invasive Alien Species.

The DA is implementing the National Organic Agriculture Program (NOAP) covering 2012-2016 which aims to have the organic agriculture sector contributing to the country's over-all agricultural growth and development, in terms of sustainability, competitiveness and food security, where at least 5 percent of Philippine agricultural farm areas practice organic farming; and, where consumers both national and international increasingly support Philippine organic food products by 2016. The NOAP targets better farm incomes and sustainable livelihood, improved health and environment protection through enhanced soil fertility and farm biodiversity, reduced pollution and destruction of the environment.

The Bureau of Fisheries and Aquatic Resources (BFAR) is the agency tasked to implement the Fisheries Code (RA 8550 and its amended version RA 10654) as well as the Agriculture and Fisheries Modernization Act (RA 8435). Given the country's exceptional marine biodiversity and the concomitant threats, the role of the BFAR in maintaining biodiversity is very critical. Its mandate in the fishery sector is broad as it performs regulatory (issues licenses for commercial fishing vessels); planning and policy implementation (prepares a National Fisheries Industry Development Plan); livelihood and poverty alleviation; and conservation and protection (closed seasons, prohibition against damaging fishing gear, etc). In terms of its organization, four out of eleven divisions have biodiversity inputs, namely: Fisheries regulatory and quarantine division; fisheries policy and economics division; fisheries resource management division which includes conservation programs, enforcement, and coastal resource management; and a fisheries resource evaluation and environment services division.

Recently, some significant funding sources have been routed through BFAR including funding from the National Greening Program (mangrove reforestation) and the support towards the establishment of 252 Community Fish Landing Centers to improve socio-economic conditions of fisherfolk communities with high poverty incidence. BFAR is also spearheading discussions on RA

10654 after the European Union issued a "yellow card" warning to the Philippine last year because of it inability to address Illegal, Unreported, Unregulated (IUU) fishing.

With respect to agrarian reform, land tenure improvement for agrarian reform beneficiaries can be influenced by biodiversity friendly agriculture such as that espoused by the Organic Agriculture Program; thus, some influence on technical support can achieve biodiversity objectives, if properly coordinated.

The Department of Public Works and Highways (DPWH) has an Environmental and Safeguards Division. However, spending for biodiversity now consists of events and other related advocacy such as Coastal Clean-Up celebrations for which the budget is approximately PHP 150,000 per year.

2.2 Social services sector

The Department of Social Welfare Development's (DSWD) mission is to develop, implement and coordinate social protection and poverty reduction solutions for and with the poor, vulnerable and disadvantaged. The DSWD is the lead agency in the implementation of the Pantawid Pamilyang Pilipino Program (4Ps), which is a form of conditional cash transfer. This program is relevant to biodiversity management because with appropriate coordination with other government agencies and local governments, the targeting of the 4Ps program can include disadvantaged communities relying on extractive and harmful biodiversity activities. In tandem also with the Sustainable Livelihood Program (SLP) of the department, participants can be given a two-track option towards micro-enterprise development or employment facilitation, both of which will potentially reduce pressure on resource natural resource overuse. Further, through innovative partnerships, the environment/ poverty nexus can be addressed. For example, DSWD Region 6 reaped the Biodiversity Award by supporting its artificial coral reef project under the Kalahi-CIDSS-Millennium Challenge Corporation, which aimed to revive the condition of the resource after years of illegal fishing and the poverty that ensued due to the loss of resources.

The Commission on Higher Education (CHED) in coordination with the Department of Agriculture (DA) and other government agencies was mandated to establish a National Agriculture and Fisheries Education System (NAFES) by virtue of Section 66 of Republic Act (RA) No. 8435 otherwise known as the "Agriculture and Fisheries Modernization Act (AFMA) of 1997" during the time of former President Fidel V. Ramos. NAFES aims to establish, maintain and support a complete and integrated system of agriculture and fisheries education (AFE), modernize and rationalize agriculture and fisheries education from elementary to tertiary levels, unify the system of implementation of academic programs and upgrade the quality and ensure sustainability and promote the global competitiveness at all levels of AFE.

The Department of Science and Technology (DOST) and its various attached agencies were identified as possibly supporting the PBSAP, namely: the Science Education Institute (SEI), the Food and Nutrition Research Institute (FNRI), the National Research Council, and the Philippine Center for Agriculture and Aquatic Resources Research and Development (PCAARRD), and its network of state colleges and universities. The biodiversity angle is addressed through the research and technologies developed, implemented, and supervised, by the agencies. The R&D agenda of the crops, livestock and forestry sectors were basically derived from 10 Industry Strategic Plans (ISPs) crafted by PCARRD in collaboration with the National Academy of Science and Technology (NAST). The ISPs are for the following industry clusters: export fruit crops, vegetables, legumes and root crops, coffee and abaca, coconut and oil palm, ornamentals, rice and white corn, sugarcane, swine-poultry-yellow corn, pasture-ruminants, and forestry. PCAARRD conducts analysis and advocacy on macro policy issues that impact significantly on the agriculture, aquatic, and natural resources sector in the areas of global competitiveness, agricultural land use and agrarian reform, food security and poverty alleviation, natural resources sustainability and environment fertility, agricultural inputs and support services, crops, livestock, forestry and environment, agricultural

resources management, and others. Lastly, the DOST also acts as the Chair of the Committee on Biosafety under which all genetic engineering experiments are vetted.

2.3 Defense Sector

Defense agencies also have mandates towards biodiversity management in the area of protection and enforcement of all environmental laws. The Armed Forces of the Philippines (AFP), through Republic Act (RA) 10349, or the Modernization Program of the AFP, includes as an objective to "develop its capability to assist civilian agencies in the preservation of national patrimony, including the country's living and non-living marine, submarine, mineral, forest and other natural resources located within its territory and its exclusive economic zone". Former President Ramos highlights the non-traditional and expanded role of the AFP as providing assistance for health, education, peace and order, environmental protection programs throughout our vast archipelago in our remotest communities (Acop 1993). In addition, Catajan (2013) reports that the AFP has been enlisted to protect Mt. Pulag, a National Park covering 11,550 hectares due to rampant illegal logging. The Office of Civil Defense, a unit in the Armed Forces, is the focal agency for disaster management.

The Philippine National Police (PNP) is the armed civilian national police force. It is mandated to enforce all laws related to lives and properties, investigate and prevent crimes, effect arrest, and bring offenders to justice. As such, the police is mandated to enforce all environmental laws. A special group within the PNP is the PNP Maritime Group which is mandated to perform all police functions, ensure public safety and internal security over Philippine territorial waters.

2.4 General Public Services

Other public sector agencies performing general public services also contribute to biodiversity spending, some more direct than the others. The Climate Change Commission (CCC) is an agency attached to the Office of the President with far reaching coordinating functions across all sectors. The CCC ensures the mainstreaming of climate change, in synergy with disaster risk reduction, into the national, sectoral and local development plans and programs; coordinates and synchronizes climate change programs of national government agencies; formulates a framework strategy on climate change to serve as the basis for a program for climate change planning, research and development; exercises policy coordination to ensure attainment of goals; recommends legislation, recommends key development investments in climate sensitive sectors such as water resources , agriculture, forestry, coastal and marine resources, health and infrastructure; and provides for an enabling environment for broader multi stakeholder participation. Aside from its coordinative role in the climate tagging initiative of the government, the CCC is also at the forefront in the preparation of the implementing rules and regulations of the People's Survival Fund (PSF) for which at least PHP 500 million has been earmarked in unprogrammed funds for climate change adaptation and disaster risk reduction. Local governments can directly access this fund.

The Metro Manila Development Authority (MMDA) performs planning, monitoring and coordinative functions, and in the process, exercises regulatory and supervisory authority over the delivery of metro-wide services within Metro Manila. In terms of its contribution to biodiversity management, the following functions are deemed relevant: (i) health and sanitation, urban protection and pollution control which include the formulation and implementation of policies, rules and regulations, standards, programs and projects for the promotion and safeguarding of the health and sanitation of the region and for the enhancement of ecological balance and the prevention, control and abatement of environmental pollution; (ii) formulate, coordinate and regulate the implementation of medium and long-term plans and programs for the delivery of metro-wide services, land use and physical development within Metropolitan Manila, consistent with national development objectives and priorities; and (iii) Solid waste disposal and management

which include formulation, and implementation of policies, standards, programs and projects for proper and sanitary waste disposal.

Other general public services agencies included in the PPBER are the Department of Foreign Affairs (DFA), mainly through its role in international conventions and funding of international commitments; the Department of Finance (DOF), as the main agency for revenue generation and assistance towards innovative financing such as "debt for nature" swaps and other off-budget items; the Department of Justice (DOJ) and its attached agencies, as enforcement and prosecution agencies; and the National Economic Development Authority (NEDA), which oversees the Philippine Council for Sustainable Development (PCSD).

III. THE PHILIPPINES BUDGET PROCESS

The budget process consists of four phases, namely budget preparation (or formulation), budget legislation (or authorization), budget execution (or implementation) and budget accountability[5](Figure 1.)

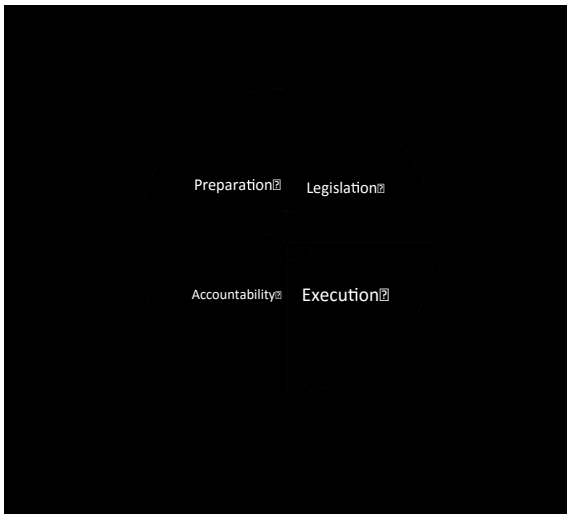

Figure 1. Philippines budget process

The budget preparation phase is perhaps the most critical in terms of setting and funding the biodiversity agenda of the government. All agencies of the government respond to a "Budget Call" from the Department of Budget and Management (DBM), which provides guidance on such as budget ceilings, resource allocation, required budget preparation documents and formats, and timeline of the budget preparation phase. Based on the Budget Call, the agency's mandate, strategic plans and goals, the agencies set out formulating their budget. The process involves deciding the allocation of resources across programs and projects by determining the monetary requirements per objects of expenditures, i.e., current operating expenditures (personal services and maintenance and operating expenses) and capital outlay. Agencies also decide on the allocation of budget across the different bureaus, regional offices and attached agencies. The head of agency is responsible for the prioritization in the allocation of the agency's budget subject to the budget policies prescribed in the Budget Call. Thus, advocating for the biodiversity agenda and ensuring funding thereof begins at the bureau or agency level. One strategy is to link or embed biodiversity objectives with the Major Final Outputs (MFO) and associated performance indicators.

It is also during this phase when the overall budget policy is determined by the Development Budget Coordinating Committee (DBCC) which is comprised of the Department of Budget and Management (DBM), the Department of Finance (DoF), the National Economic and Development Authority (NEDA) and the Monetary Board (MB). The DBM ensures the appropriate allocation, management and control of public expenditures; the DoF provides the guidance on appropriate revenue, borrowing and cash management policies and targets that should support these expenditures; the NEDA ensures that the budget is supportive of the socio-economic development objectives and goals as set out in the country's Medium-term Development Plan; the Monetary Board ensures that monetary policies are considered in setting budget policies. Part of the overall budget policy includes decisions on whether to aim for a balanced budget, generate surplus or pursue deficit spending. A balanced budget means that the level of expenditures to be programmed will be limited to the amount of estimated revenues. Generating surplus entails setting of expenditure levels below the estimated revenues while the reverse is true for deficit spending.

Executive review, deliberation, and approval of the agency budgets entail a series of technical meetings after which it is endorsed to the President. Once the budget is cleared with the President, the DBM finalizes the budget documents which the President will submit to Congress for approval. The budget documents submitted by the President to Congress include the following:

[5] Main reference for this section is Padilla (2010) http://peranatinito.net/index.php?option=com content&view=article&id=72:public-expenditure-policies-processes-and-institutions& catid=46&Itemid=73

- The President's Budget Message
- Budget of Expenditures and Sources of Financing
- National Expenditures Program
- Details of Selected Programs/Projects
- Staffing Summary

Budget Legislation (or authorization) starts once the President transmits the proposed budget to Congress and whence legislated is referred to as the General Appropriations Act (GAA). Article VI, Sec. 29 of the Constitution provides that "No money shall be paid out of the Treasury except in pursuance of an appropriation made by law." An appropriation is essentially an authorization made by law or other legislative enactment, directing payment out of government funds under specified conditions for specified purposes. In the event that no appropriations bill has yet been signed at the start of the year in, the Constitution provides that GAA for the previous year will be in effect until a new one is signed for the new year.

Budget Execution. After having appropriated amounts, agencies need to secure an allotment to be able to obligate amounts specified in their budgets; cash allocation should also be secured before disbursements can be made to settle these obligations. The budget execution phase is concerned with these operational aspects of budgeting which facilitates the translation of appropriations to disbursements, or more specifically the release of funds through allotments and Notice of Cash Allocation (NCA).

The DBM issues an allotment to implementing agencies which authorizes them to incur obligations for specified amounts contained in the legislative appropriation, e.g. GAA. The DBM requires agencies to submit documents it would review and would be part of the basis for releasing allotments including work and financial plans. Allotment releases are spread out throughout the year and are issued based on the cash requirements of agencies and the availability of funds in the national treasury. Succeeding release of allotments necessitates continuous performance review of agencies by the DBM and the submission of periodic Budget Accountability Reports reflecting the agencies' actual physical and financial accomplishments, allotments received and obligations/expenditures.

The budget accountability phase ensures that resources are utilized according to existing laws, rules and guidelines. Within the government, there are rules governing accounting and audit systems. The New Government Accounting System or NGAS sets the guidelines for agencies in accounting for budgetary accounts, accounting for all its receipts and incomes, accounting for its disbursements, and the financial reporting system. The Commission on Audit conducts annual external audit of government agencies which covers financial, compliance and performance audit.

Sometimes, the total appropriations and total disbursements do not equate. Changes in the macroeconomic scenario as well as agency performance contribute to the divergence of numbers. For example, a depreciation of the exchange rate may increase debt-servicing while agency performance (financial and physical performance) may affect scheduled allotments / cash releases.

To ensure that biodiversity is sufficiently funded, the most relevant phases of the budget cycle include preparation, execution, and accountability. At the preparation stage, the "business case" for biodiversity funding is made and this commitment should be sufficiently reflected in the major final outputs and indicators of the various agencies spending for biodiversity. If agencies have inadequate appreciation for biodiversity or are unaware of their mandates, then no targeting, and therefore, spending can occur. Budget execution and accountability are equally important because the amount appropriated for particular biodiversity objectives must be spent as such in the most effective manner.

Components of the budget. The budget consists of the following sections:

- Regular programmed spending by the executive, legislative (senate and congress), legislative branches of government, constitutional offices, and other executive agencies;

- Special Purpose Funds (SPFs) are budgetary allocations in the General Appropriations Act (GAA) allocated for specific purposes. These are usually lump sum in nature, as the recipient departments or agencies and/or the specific programs and projects have not yet been identified during budget preparation and legislation. These are then made available for allocation to agencies in addition to their built in appropriations during budget execution, pursuant to special provisions and conditions pertaining to the SPF. Moreover, these funds have specified socio-economic purposes, as detailed below. For certain funds like the Calamity Fund and Contingency Fund, these have to remain in lump sum form due to the specific purposes that the funds serve. Moreover, certain funds are, in fact, fleshed out into detail, like Budgetary Support to Government Corporations and the International Commitments Fund.
- Automatic appropriations, on the other hand, refer to appropriations programmed annually or for some other period prescribed by law, by virtue of outstanding legislation which does now require periodic action by Congress. Falling under this category are expenditures authorized under Presidential Decree (PD) 1967, RA 4860 and RA 245, as amended, for the servicing of domestic and foreign debts, Commonwealth Act 186 and RA 660, for the retirement and insurance premiums of government employees, PD 1177 and Executive Order 292, for net lending to government corporations, and PD 34, for various special accounts and funds.
- Unprogrammed funds are lump sums which are also appropriated by Congress. Examples of allocations under this category are support to GOCCs, budget support to local governments, support to foreign assisted projects, debt management, and people's survival fund. The unprogrammed portion is released only when the revenue targets exceed the targets specified in the law.

Off-budget items

MSI and Coffey (2009) defined "off-budget accounts" (OBAs) as accounts and funds that are not subject to annual appropriations by Congress and are accounted for separately under a different set of books. There is no need for an annual Congressional budget authority because Congress has previously authorized the continuous use of the funds for the purpose indicated. Separate books of account are required to specifically account for receipts as well as the utilization of funds.

While comprising less than 5% of the national budget, discussions on off-budget accounts focus on the potential for improper spending given the less than straightforward transparency in fund management. Among those identified as potentially problematic off-budget accounts were the National Agribusiness Corporation (NABCOR); the Municipal Development Fund; and the President's Social Fund. The latter is drawn from the incomes of the Philippine Amusement and Gaming Corporation (PAGCOR) and the Philippine Charity Sweepstakes Office (PCSO) and is used upon the discretion of the President for social initiatives.

IV. METHODOLOGY

This section details the scope and processes to derive biodiversity expenditures. The PIR and the consultations supported by PBSAP defined the scope of analysis for the PPBER (especially with respect to the identification of public sector agencies). Both primary and secondary data were used in this section and the principles for data selection are presented also. Two unique features of this report are: (1) the deployment of personnel survey to determine the biodiversity component of personnel costs; and (2) the development of the biodiversity relevance factor (BRF) which was based on the tagging of institutions to the twenty Aichi targets and the relative costs of each Aichi target resulting from the completion of Workbook 2A or the Costing/Financial Needs Assessment.

4.1 Scope of the PPBER

The PPBER endeavored to cover as many public sector agencies as possible among those previously identified by experts as contributing to the PBSAP and to the Aichi targets. Public sector agencies include both national agencies as well as local governments. In addition, private sector contribution to biodiversity spending has been analysed, though not in the same breadth as the public sector. Two non-governmental organizations and the corporate sector have been included in the study. The desired coverage is realistic and consistent with the findings of the BIOFIN PIR as to the breadth and nature of institutional actors, both positive and negative, in biodiversity. It is strategic as well because the inclusiveness aspect fostered by PBSAP and BIOFIN opens up opportunities for funding.

The PBSAP identified more than 60 public sector agencies plus groups of stakeholders such as the religious sector, academe, congress and media. The list was shortened to agencies having their own budgets and a clearly defined organization; thus, clusters like media and religious sector were not included as well as sub-committees (e.g. Philippine Council for Sustainable Development Subcommittee on Biodiversity). Government owned and controlled corporations (GOCC) were also excised from the list because of a different budgeting framework and the complexity of capturing their expenditure data. Apart from national government agencies, the analysis included local governments in the expenditure analysis. Official development assistance (ODA) data was compiled; however, this was limited to data provided by the DENR Foreign Assisted Projects Office (FASPO). Philippine Rice Research Institute (PHILRICE) also provided a dataset on ODA, this was also reviewed and biodiversity relevant projects identified and valued.

4.2 Principles in Selecting Datasets to be Analyzed

The following parameters guided the data collection process for the PPBER:

- Consistency and availability of data across agencies. This criterion is important because of BIOFIN's aim to provide a comprehensive estimate of biodiversity spending involving several public sector agencies. Therefore, comparability and consistency of data is paramount to the analysis.
- Availability of time series data to establish trends in budgets or spending for biodiversity. A period starting from 2006 was recommended by the BIOFIN Workbook. This report considered an inclusive period from 2008-2013 for the budget data for all agencies included in the PPBER. More recent data was used for the macro-economic analysis (ending in 2014) and overall budgets as well as for the analysis of the statement of allotments, obligations and balances (from 2011-2014).
- Sufficient degree of disaggregation to sub-agency levels and program/activities/projects level in order to derive biodiversity spending. This decision was very critical in as much

as biodiversity spending is not fully defined nor are there any specific expenditure items in the budget. Thus, the estimation procedure required further information on the agency budgets up to the program level to have a better grasp on biodiversity spending; this was supplemented by information on agency activities and mandates.

- Accessible to the public for further validation and replication of the process. Web-based data from the government agencies would lend to further analysis such as extension of time series data going forward and budget tracking.

4.3 Use of primary and secondary data

Primary Data

Primary data on personnel spending was generated through personnel surveys. BIOFIN implemented a personnel survey which directly asks respondents "how much of their time is spent on biodiversity related activities". A "generic" copy of the survey is attached as Annex 2. Minor entries were revised depending on the agency/institution surveyed. The list of agencies and schedules when the Personnel Survey was implemented is shown in Table 1.

Meetings organized to implement the survey usually consisted of three parts. Part 1 allowed a briefing on the PBSAP and BIOFIN objectives while Part 2 is the implementation of the survey. In some cases, clarificatory questions regarding the survey were posed during the meeting. In Part 3, selected respondents were invited to share the response; this elicited more discussion about biodiversity, biodiversity spending, and request for follow through on the PBSAP process.

The results of the personnel survey were then applied to the Personnel Expenditure component of the budgets. Thus for each budget item for personnel, distributed as General Administration and Support Services (GASS), Support to Operations, and Operations, the percentages were imputed by multiplying the amount budgeted / spent with the percentage of personnel and the percentage of biodiversity-relevant spending. The resulting value is thus the real personnel spending on biodiversity.

Private sector expenditures were culled during two workshops organized for civil society (March 27, 2015) and the corporate sector (May 22, 2015). A data sheet was developed for the NGOs which required information on total budget, disaggregated into personnel, maintenance and operating expenses, and capital outlay. They were also asked to determine the % of budget assigned to biodiversity expenditures. For the private sector, BIOFIN collaborated with the Philippine Business for the Environment. At a meeting organized for their members, BIOFIN sent our surveys containing the following information requirements: (i) policy or management approach towards biodiversity; (ii) illustrative biodiversity related activities and (iii) spending per year (varied years were indicated in their data sheets).

Table 1. List of agencies which have undergone the BIOFIN personnel survey

No.	Agency	Date
1	Biodiversity Management Bureau - DENR	10-Nov-14
2	Ecosystems Research and Development Bureau – DENR	13-Nov-14
3	Forest Management Bureau – DENR	17-Nov-14 22-Jan-15
4	Haribon Foundation, Inc.	21-Jan-15
5	Palawan Council for Sustainable Development	26-Jan-15
6	Palawan PLGU - Office of the Provincial Agriculturist	26-Jan-15
7	Palawan PLGU - Provincial Tourism Office	26-Jan-15
8	Palawan PLGU - Provincial Planning and Development Office	26-Jan-15

No.	Agency	Date
9	Municipality of San Vicente LGU	27-Jan-15
10	City Government of Puerto Princesa	28-Jan-15
11	DENR Region VII	17-Feb-15
12	BFAR Region VII	17-Feb-15
13	Department of Agriculture VII	16-Mar-15
14	Municipality of Alcoy, Cebu	17-Mar-15
15	City Government of Cebu	17-Mar-15
16	DENR - Environmental Management Bureau	20-Mar-15 17-Apr-15
17	PCAARRD-DOST	23-Mar-15
18	Civil society organizations	27-Mar-15
19	Metropolitan Manila Development Authority	17-Apr-15
20	Philippine Rice Research Institute	20-Apr-15
21	Institute of Climate Change and Environmental Management, Central Luzon State University	21-Apr-15
22	OceanaGold Corporation Philippines	30-Apr-15
23	Climate Change Commission	12-May-15
24	National Commission on Indigenous Peoples	19-May-15
25	Philippine Business for the Environment[1]	22-May-15

Secondary data

Budget data for national agencies were culled from the General Appropriations Act (GAA) from years 2008-2013. Data was organized according to standard spreadsheets that were classified according to main expenditure items (personnel, maintenance and other operating expense, and capital outlay) and according to programs / activities / and projects. This is the basic source of information for all budget data for agencies contributing to PBSAP.

Data on actual expenditures were based on Statements of Allotments Obligations and Balances (SAOB); however, this was available for a limited number of years and for the main biodiversity agencies only, i.e., the DENR bureaus notably BMB, FMB and ERDB and the DA, notably the BFAR. The shorter coverage of data is due to the lag time of two years for agencies to actually spend and report the actual expenditures. The following websites were the main sources of information:

a. www.dbm.gov.ph
b. www.coa.gov.ph
c. www.denr.gov.ph
d. www.da.gov.ph

Expenditures of local governments. BIOFIN collected statements of incomes and expenditures and relevant ordinances for the LGUs visited / included in the personnel survey. Data was also culled from published information (Butardo-Toribio et al for marine protected area expenditures) and project data shared by the Protected Area Management Effectiveness (PAME) project of the German government.

Official development assistance (ODA). ODA data was provided by the DENR Foreign Assisted Projects Office (FASPO). A long list of ODA (grants and loans) were provided and examined to determine the relevance to biodiversity spending. Further discussion on ODA is found in the succeeding section.

4.4 Levels of resolution

BIOFIN Philippines applied all three levels of resolutions that were suggested in the BIOFIN workbook, instead of selecting one modality as was recommended. Table (2) below illustrates how BIOFIN Philippines adapted the method to suit institutional lay-out and data availability while Table (3) outlines the specific methods categorized according to the three resolutions and the agencies which have undergone budget/expenditure analysis.

The BMB underwent a fine resolution lens in determining biodiversity spending due to (i) being the main purveyor of the PBSAP and host of BIOFIN and (ii) willingness to share data and collaborate on more detailed analysis of budgets and spending. Each of the main program categories (General Administration and Support Services (GASS), Support to Operations (STO), and Operations) was examined for its biodiversity relevance. Ratios derived from the personnel surveys were applied to all personnel components of the three programs. Biodiversity components of Maintenance and Other Operating Expenses (MOOE) and capital outlay (CO) spending are based on general relevance indicators recommended by the BIOFIN guidebook, i.e., the more direct the expenditure is on attaining biodiversity targets, the higher the relevance. A useful comparison would be capital outlays for repairs of canteens and toilet facilities having lower biodiversity relevance than those of a clonal nursery or stream bank reforestation. The current programs were used as basis for the assignment of BRFs with the assumption that all previous utilization of funds is of similar nature. A full listing of biodiversity relevance for the specific Programs/Activities/Projects of the BMB is provided in Annex 3.

Table 2. Major sections of the PPBER based on the BIOFIN Workbook and adaptation implemented by BIOFIN Philippines.

BIOFIN Workbook Structure	BIOFIN Philippines Application/ Specifics
SECTION 1: Overall national budgetary and expenditure snapshot	‣ Fine resolution Calculate the total government budget, expenditure, foreign loans and grants, and gross domestic product based on existing government Figures Time series from 2008-2014
SECTION 2: Baseline biodiversity-related expenditure and expenditure effectiveness review	‣ Fine to Medium Resolution Conduct a thorough review of most or all public and private biodiversity finance actors, agents and investors for their contributions to the PBSAP and Aichi targets Using the BRF, determine the program/activities/projects which comprise the biodiversity spending Effectiveness review focused on divergence between allotments and actual spending for DENR and DA only ‣ No negative expenditures were studied
SECTION 3: Expenditure review by major strategy group	‣ Medium to Fine Resolution Identify the breakdown of biodiversity expenditures for most or all financial actors, by thematic areas of the PBSAP
SECTION 4: Estimated future funding baseline	‣ Medium to Fine Resolution Estimation process for all agencies, ODA, loans and local governments

Table 3.Modes of resolution of BIOFIN PPBER methodology and agency involvement

	Methods	Agencies
Fine	GAA and NEP Figures from 2008-2013 Personnel relevance based on personnel survey MOOE and capital outlay relevance based on physical / financial plans and detailed program and project components	BMB
Medium	GAA and NEP Figures from 2008-2013 Personnel relevance based on personnel survey MOOE and capital outlay relevance based on physical / financial plans and specific program and project components Direct environmental expenditures from the private sector	EMB, FMB, ERDB, PCAARD, PCSD, PHILRICE, CLSU, MMDA, DENR Region 7, BFAR Region 7, Province of Palawan, Province of Cebu, City of Cebu, City of Puerto Princes, Municipality of Alcoy, Municipality of San Vicente, Haribon Foundation, WWF, and the Philippines Business for the Environment
Coarse	GAA and NEP Figures from 2008-2013 Singular assignment of relevance factor applied to selected components of budget Review of mandate No personnel survey	AFP, PNP, PCG, DOTC, DOT, DFA, CHED, DEPED, DOF, DAR, DoF, DBM, DOH, DOH-Nutrition, DOH-PCHRD, DILG, DPWH, DSWD, DOST (various attached agencies), NEDA, DTI, HLURB, National Museum

4.5 Personnel Survey Results

Table 4 shows the range of biodiversity-relevant function with the lowest at 0% or no biodiversity-related functions performed to a maximum of 100%, i.e., all work performance is related to biodiversity function. For each agency, the responses of personnel surveyed are distributed according to their response or their personal acknowledgement of their performance of biodiversity related functions. For EMB, almost 35% of personnel surveyed stated that a maximum of 20% of their functions are related to biodiversity while 34% of those surveyed in BMB indicate that 91-100% of their functions are biodiversity related. In contrast, two other staff bureaus included in the Personnel Survey, i.e., FMB and ERDB, yielded percentages in the 91-100% range, only half of the BMB result. This, despite their mandates indicating an important focus on biodiversity. Operations of FMB were described previously in Section 2.1. as being eligible for biodiversity spending. Likewise, the role of ERDB in all research required by the DENR, and its role in the NGP suggests that biodiversity is a key function, albeit unrecognized as such by its personnel.

The DENR offices in the region (regional office and Provincial Environment and Natural Resources Office (PENRO)) yielded lower scores with an average of 40% indicating that their biodiversity functions range from 1 to 20% only. The local governments surveyed also indicated a low percentage of their functions are related to biodiversity despite the fact that the personnel surveyed were those with mandates towards biodiversity such as tourism, agriculture/fishery/foresty, environment, and planning/budgeting.

Apart from BMB, the PCSD and the CLSU yielded high percentages of personnel engaged in biodiversity related functions. In the case of CLSU, a state university with main function being the dispensation of tertiary education, the results are highest because the personnel surveyed all belong to the Biodiversity Center, a special center funded by the Integrated Coastal Resource Management Project (ICRMP).

Table 4. Results of personnel survey for various national agencies, local governments, and private sector.

Agencies	Range of Biodiversity-Related Functions and Weighted Scores					
	0	1 to 20%	21 to 50%	51 to 75%	76 to 90%	91 to 100%
EMB	0.20	0.35	0.15	0.13	0.04	0.13
BMB	0.00	0.27	0.16	0.02	0.21	0.34
FMB	0.08	0.19	0.18	0.27	0.15	0.14
DENR Region 7	0.13	0.38	0.06	0.19	0.19	0.06
PCSD	0.00	0.00	0.15	0.22	0.26	0.37
DENR PENRO 4B	0.00	0.41	0.29	0.06	0.06	0.18
ERDB	0.19	0.12	0.12	0.12	0.35	0.12
PLGU PALAWAN	0.03	0.31	0.20	0.29	0.06	0.11
City of Puerto Princesa	0.11	0.48	0.11	0.11	0.07	0.11
San Vicente	0.04	0.17	0.13	0.17	0.35	0.13
PLGU Cebu	0.17	0.08	0.17	0.25	0.17	0.17
Alcoy	0.11	0.33	0.11	0.33	0.00	0.11
MMDA	0.00	0.41	0.19	0.26	0.11	0.04
Philrice	0.11	0.47	0.05	0.11	0.11	0.16
CLSU	0.13	0.19	0.06	0.06	0.13	0.44
NCIP	0.14	0.41	0.09	0.27	0.09	0.00
CCC	0.00	0.57	0.07	0.07	0.07	0.21
Haribon	0.00	0.47	0.00	0.06	0.29	0.18

Aside from the usefulness in deriving biodiversity relevant expenditures associated with personnel, the survey provides useful insights on perceptions towards biodiversity and performance of biodiversity-relevant functions. Among the different agencies surveyed, the BMB and PCSD resulted in highest levels of personnel activities that are relevant to biodiversity, consistent with the mandates of said agencies. Among the other national agencies and local governments whose mandates cover broader functions such as that of LGUs, the biodiversity functions range from 1 to 20% of the total time spent.

A seeming gap between mandates as defined by policy and personnel perceptions on biodiversity functions pose challenges towards sustaining a broader institutional base by which the mainsteaming of PBSAP is to occur. BIOFIN can take resolute actions to narrow the knowledge gap and/or enhance delivery of biodiversity relevant functions within the agency's mandate for a limited number of agencies that may include those that can contribute to the achievement of the financing plan. This may be accomplished within the ambit of PBSAP, i.e, identified as activities, or built into the functions of the PBSAP Secretariat or its Monitoring and Evaluation structure. Likewise, biodiversity tagging exercises with appropriate policy support can clarify biodiversity functions vis-à-vis current agency functions and pave the way of a more efficient assignment of expenditures.

4.6 Estimation of Biodiversity Relevance Factor (BRF)

PBSAP Workshop consultations identified more than 60 national agencies plus groups of other stakeholders with perceived contributions (both existing and prospective) to the Aichi targets (Annex 4). The assignment of Aichi targets for agencies previously identified by PBSAP was validated by referring to the BIOFIN Policy and Institutional Review. The gaps were supplemented by further

research on agency mandates. In addition, agencies which did not have their own budgets, for example sub committees, were deleted, as well as government owned and controlled corporations (GOCCs). Likewise, only "formal institutions" were assigned BRFs and not loose coalitions or networks such as civil society networks or media or religious sector.

The process for the estimation of the BRF is as follows:

- Assign cost indices per Aichi target based on actual cost contribution relative to total costs. Targets which are relatively more expensive to implement (restoration) are given more weight than those which are relatively cheaper to implement (policy or awareness).
- Sum all Aichi costs per agency. Agencies contributing to more Aichi targets or more expensive Aichi targets get a larger factor.
- Standardize the sum per agency relative to the actual BRF of BMB, which is 79%
- All other agency sums are calibrated to this percentage.

The range of BRF scores are an improvement over the BIOFIN workbook guidance of High-Medium-Low relevance (as adapted from Bird et. al, 2012) because it allows a numerical measure to be applied to the budget and expenditure data. However, the process was made feasible because the costing was already completed.

The resulting BRF for BMB is 79% and since this estimation can be considered as the best BRF estimate and that, furthermore, the BMB is the most significant purveyor of biodiversity in the Philippines, all other agency ratings were calibrated against the BMB values, i.e. 79% = 100%. Agencies with the highest BRFs are listed in Table 5 with the BMB securing the top spot and the BFAR ranking second. The full listing of the BRFs can be found in where each agency's contribution to the Aichi target is weighted according to the cost per target. Annex 4 also shows the final BRF after calibrating all scores against the BMB rating.

Table 5. Top 5 agencies with highest biodiversity-relevant spending

Agency	BRF Estimate(%)
BMB	79.0
BFAR	75.08
PCSD	41.17
NCIP	40.5
PCAMRD	36.91

A summary of BRF scores for the various agencies of the DENR is shown in Table 6, as well as details on which particular expenditure item the BRF was applied. The BRF was not applied to personnel expenses where a personnel survey has been implemented as this would be a superior source of data. Instead, the biodiversity relevant expenditure for personnel was estimated based on the percentages derived from the personnel survey. Also, BIOFIN utilized the institutional assessment to determine whether to apply the BRF on either expense class or expense object (Personnel, MOOE, Capital Outlay) or programs/project (General Administration and Support Services, Support to Operations, Operations).

BRF scores for the other national agencies and its application to budget components can be found in Annex 5.

Table 6. BRF scores of the DENR bureaus and attached agencies and application to relevant cost component

Bureaus / Offices of the DENR	% contribution to 20 Aichi Targets	Standardized BRF	Application of BRF
BMB[6]	99.0	79.0	Not applied, detailed analysis done on all expenditure items
ERDB[9]	45.90	36.26	MOOE and Capital outlay
EMB[9]	9.02	7.13	MOOE and Capital outlay
FMB[9]	42.90	33.89	Support to operations; forest development (NGP); forest protection ; soil conservation and watershed management
LMB	6.52	5.15	Formulation and monitoring of ENR Sector Policies, Plans, Programs and Projects
MGB	6.54	5.17	Operations budget, specifically mineral lands operation
NAMRIA	6.31	4.98	Operations budget including mapping, surveying, remote sensing, and information services
NWRB	6.79	5.36	Operations, i.e., coordination and regulation of water resources management
PCSD[9]	52.11	41.17	MOOE

4.6 Limitations of the PPBER

A basic issue reckoned within this study, likewise raised by similar PPBERs, is the absence of a standard definition of biodiversity and thus, the inherent difficulty in assigning biodiversity spending. Similar expenditure reviews encountered difficulties with the broader terms "environmental spending" or "climate change spending" while this study seeks to either carve a specific niche within these two categories which can be perceived as either broader, i.e., when the entire topic of life is considered, or narrower, when the element of diversity is introduced. Results of the personnel survey further support the claim that biodiversity is at best, misunderstood.

As a remedy, further institutional analysis provided a better grasp of the biodiversity spending which earlier PBSAP consultations identified.

Another issue is the availability of data for analysis of budgets and expenditures (allocation versus execution). This analysis is constrained by the consistency of data across agencies, the varied time series per agency, and the level of detail available from whence biodiversity spending can be deduced (It is the latter parameter which is given most weight). UNDP's analysis from over 20 Climate Public Expenditure and Institutional Reviews likewise highlights the reliance on budget allocation data (UNDP 2015). BIOFIN Philippines used the same approach and relied on GAA data which presents current operating budgets or appropriations at the program/activities/project level. There are issues raised about the deviation between appropriations and budget execution; however, the appropriations represent how agencies are able to formulate their budgets and within larger departments such as the DENR and the DA, how the so-called biodiversity agenda can be supported or restrained. The internal struggles within agency are further mimicked in the halls of congress. Needless to say, public finance and issues pertaining to budgeting and spending are

[6] Personnel survey results applied to all personnel costs.

characterized more by political decision-making rather than by transparency and predictability. Thus, the amounts appropriated can either be more, or less, than actual obligations depending on macro-economic trends, congressional insertions, and agency performance.

GAA data inadequacies are partially remedied by an analysis of SAOB as these provided indications of actual expenditures vs. appropriations. SAOB data for the BMB was not comparable to the GAA data because the latter covered the entire sectoral budget for biodiversity, i.e., including the budget of all DENR regional offices.

Time constraints did not allow a detailed analysis of sub-national spending for biodiversity. Also the lack of participation by other agencies, such as the DA and BFAR prevented more detailed analysis.

V. RESULTS AND FINDINGS OF THE PPBER

Biodiversity appropriations are estimated for core agencies, non-core agencies, local governments, and private sector based on the scope and methods as previously described. An analysis of macroeconomic parameters such as GDP and budgets as well as total agency appropriations provide a context by which biodiversity spending is further analysed. A summary estimation of biodiversity appropriations concludes this section.

5.1 Macroeconomic Profiling

Macroeconomic parameters are critical to budget formulation and execution. Among some of the parameters most commonly considered are GDP, population rate, inflation rate, foreign exchange rate, unemployment rate, and the price of crude oil. Table 7 below shows the sensitivity of budgets to some macroeconomic parameters. A one-peso to a dollar depreciation would increase revenues by at least PHP 8 billion but would increase debt servicing resulting to a surplus of PHP 5.5 billion. Meanwhile, a percentage point increase in Treasury bill rates will result to a deficit of PHP 2.1 billion due to increased debt payments in the domestic market. Increases in inflation rate, GDP growth rate and growth rate of imports would result in a positive budget balance.

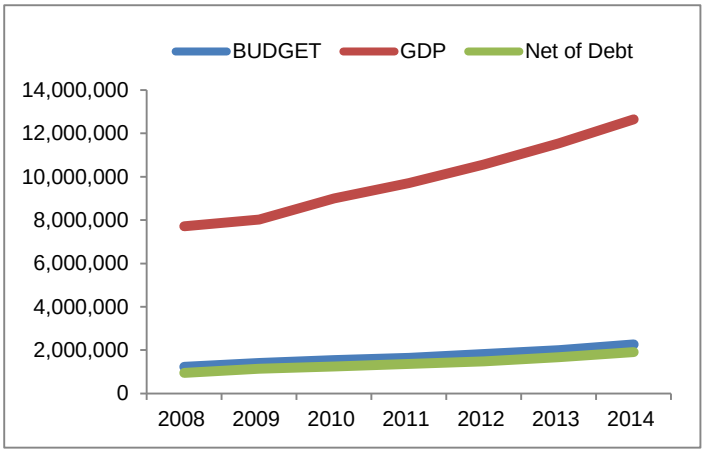

Figure 2. Levels of GDP and government budget from 2008-2014.

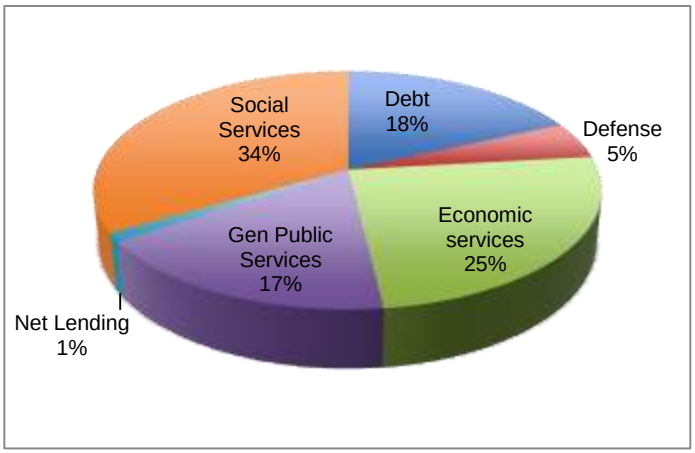

Figure 3. Sectoral components of the budget, 2010-2013

Since 1998, the government of the Philippines has been on a deficit spending mode with the highest levels recorded for years 2009-2010, the final year of the Arroyo administration and the first year of the Aquino administration, respectively (Table 8). A decision on surplus, deficit, or balanced budget is targeted based on the strategic thrusts of the government; for example, poverty alleviation initiatives may incur larger spending from the public sector by way of employment creation, subsidies and conditional transfer programs, and increased spending on social services.

GDP growth rate from 2008-2014 averaged at 8.6% while the budget represented 16% and 14% of GDP and GDP net of debt payments, respectively (Figure. 2). Sectoral components of the budget from 2010-2013 indicate that social services comprise the largest percentage (health, education, housing, labor) followed by the economic services sector which includes the natural resources / biodiversity budget (Figure.3). Meanwhile, the budget of the natural resources and environment sector is consistently 1% of the total budget for the period.

Table 7. Macroeconomic parameters and impact on budgets (in billion pesos)

Indicator	Change	2014		
		Revenues	Disbursements	Budget Balance[7]
Peso-to-US dollar exchange rate	P 1 depreciation	8.4	2.9	5.5
Treasury bill rate (all maturities)[8]	1 percentage point increase	0.5	2.7	(2.1)
LIBOR (180-day)	1 percentage point increase		2.9	(2.9)
Inflation rate	1 percentage point increase	16.7		16.7
Real GDP Growth Rate	1 percentage point increase	17.1		17.1
Growth rate of imports	1 percentage point increase	6.3		6.3

Source: http://www.dbm.gov.ph/wp-content/uploads/BESF/BESF2014/A6.pdf

7 Negative figure in the budget balance means an increase in the deficit
8 Based on government securities floatations for the year. Revenue impact includes 20 percent withholding tax and gross receipts tax.

Table 8. Proposed budget, revenues and expenditures from 1998-2014

Year	Administration	Budget for the Year	Revenues	Expenditures	Surplus/(-)Deficit
2014	Aquino Administration (2010-2016)	2,265,000,000,000	No data available	No data available	No data available
2013	Aquino Administration (2010-2016)	2,006,000,000,000	1,565,865,000,000	1,677,329,000,000	-111,464,000,000
2012	Aquino Administration (2010-2016)	1,816,000,000,000	1,534,932,000,000	1,777,759,000,000	-242,827,000,000
2011	Aquino Administration (2010-2016)	1,645,000,000,000	1,359,942,000,000	1,557,696,000,000	-197,754,000,000
2010	Aquino Administration (2010-2016)	1,541,000,000,000	1,207,926,000,000	1,522,384,000,000	-314,458,000,000
2009	Arroyo Administration (2001-2004 & 2004-2010)	1,415,000,000,000	1,123,211,000,000	1,421,743,000,000	-298,532,000,000
2008	Arroyo Administration (2001-2004 & 2004-2010)	1,227,000,000,000	1,202,905,000,000	1,271,022,000,000	-68,117,000,000
2007	Arroyo Administration (2001-2004 & 2004-2010)	1,126,339,000,000	1,136,560,000,000	1,149,001,000,000	-12,441,000,000
2006	Arroyo Administration (2001-2004 & 2004-2010)	No data available	979,638,000,000	1,044,429,000,000	-64,791,000,000
2005	Arroyo Administration (2001-2004 & 2004-2010)	907,589,726,000	816,159,000,000	962,937,000,000	-146,778,000,000
2004	Arroyo Administration (2001-2004 & 2004-2010)	864,763,579,000	706,718,000,000	893,775,000,000	-187,057,000,000
2003	Arroyo Administration (2001-2004 & 2004-2010)	804,200,000,000	639,737,000,000	839,605,000,000	-199,868,000,000
2002	Arroyo Administration (2001-2004 & 2004-2010)	No data available	578,406,000,000	789,147,000,000	-210,741,000,000
2001	Arroyo Administration (2001-2004 & 2004-2010)	No data available	567,481,000,000	714,504,000,000	-147,023,000,000
2000	Estrada Administration (1998-2001	No data available	514,762,000,000	648,974,000,000	-134,212,000,000
1999	Estrada Administration (1998-2001	No data available	478,502,000,000	590,160,000,000	-111,658,000,000
1998	Estrada Administration (1998-2001	No data available	462,515,000,000	512,496,000,000	-49,981,000,000

Source of basic data:
Bureau of the Treasury (BTr)
Department of Finance (DOF)
Department of Budget and Management (DBM)
Notes:
Data on expenditures are actual cash disbursement records from BTr and DOF. Detailed numbers of actual expenditures from DBM may not add up to totals.
Data on revenues from BTr and DOF do not add up to totals of detailed records of DBM in 2001, 2002, 2003, and 2012.
http://moneypolitics.pcij.org/public-funds/?fund=govt

5.2 Budget trends : Core Biodiversity Agencies

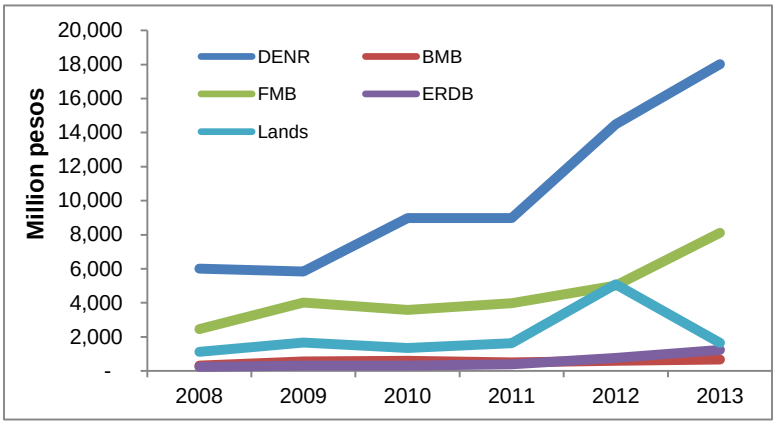

Figure 4. Annual appropriations of the DENR and staff bureaus from 2008-2013 (in million pesos).

The core biodiversity agencies consist of the Department of Environment and Natural Resources, specifically three staff bureaus[9] namely: the Biodiversity Management Bureau (BMB), the Forest Management Bureau (FMB), and the Ecosystems Research and Development Bureau (ERDB). The Lands Management Bureau (LMB) also perform minor biodiversity functions as previously discussed. Three other attached agencies to the DENR perform functions related to biodiversity: NAMRIA, NWRB, and the PCSD.

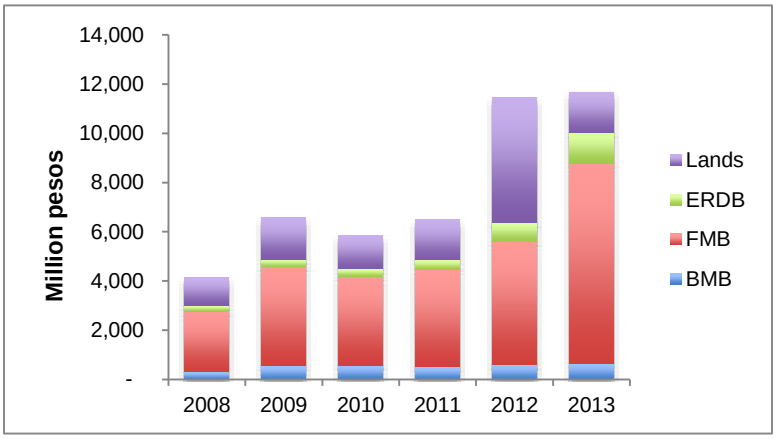

Figure 5. Relative distribution of budgets across staff bureaus, 2008-2013

Other than the DENR, the Department of Agriculture (DA) and the Bureau of Fisheries and Aquatic Resources are also included as core biodiversity agencies.

Using the GAA data results to an average growth rate of 27% for the DENR from 2008-2013 and an average budget of PHP 11 billion per year in new appropriations (Figure 4). All four bureaus posted increases during the same period with the ERDB and LMB budget growing by 40% while the FMB budget grew by 30%, on average. The ERDB's budget experienced a spike in 2012 due to investments in the clonal nursery (under the NGP). A similar pattern is observed for the LMB which budget grew from PHP 1.7 billion to PHP 5 billion in 2012 due to full implementation of the cadastral survey. Meanwhile, the BMB budget increased at an average of 20% over the 6-year period across all components of the budget (Table 9).

Table 9. Annual appropriations of the Biodiversity Management Bureau, 2008-2013 in million pesos

[9] [9] Staff bureaus perform policy, program development and advisory functions while line bureaus directly implement programs as provided by Executive Order 292, Administrative Code of 1987.

Programs	2008	2009	2010	2011	2012	2013
General Administration and Support Services	**18.1**	**19.2**	**20.2**	**20.7**	**32.0**	**37.5**
Personnel Services	9.2	10.3	10.9	11.9	12.8	13.1
Maintenance and Other Operating Expenses	8.9	8.9	8.8	8.8	13.2	14.2
Capital outlay	0.0	0.0	0.5	0.0	6.0	10.2
Support to operations	**15.9**	**18.0**	**24.2**	**22.7**	**24.1**	**27.4**
Personnel Services	12.4	14.5	14.6	16.1	17.1	18.9
Maintenance and Other Operating Expenses	3.5	3.5	9.6	6.6	6.8	8.5
Capital outlay	0.0	0.0	0.0	0.0	0.2	0.0
Operations	**285.8**	**527.4**	**545.1**	**462.7**	**539.4**	**597.1**
Personnel Services	123.0	139.8	139.3	152.6	154.8	171.0
Maintenance and Other Operating Expenses	162.8	337.1	390.8	290.2	310.5	324.1
Capital outlay	0.0	50.6	15.0	19.9	74.1	102.0

Source : General Appropriations Act of 2008 to 2013

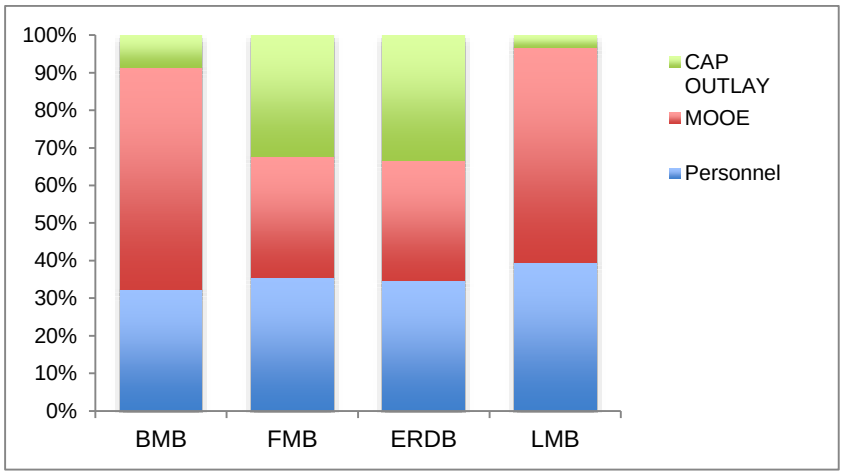

Figure 6. Disaggregation of expenditures according to expense class, average from 2008-2013, by DENR bureau.

From 2008-2013, the appropriations data across the four staff bureaus of the DENR show that the FMB consistently accounts for almost half of the budget while another 20% is contributed by the LMB. The budget priorities from 2010 onwards are consistent with the priority programs of the DENR under the Aquino administration which includes completion of the cadastral survey, the National

Greening program, geohazard mapping and "*adopt an estero*"[10]. Both the BMB and the ERDB comprise less than 10% of the DENR budget (Figure 5).

Disaggregation of the budget to main expenditure items yielded a 45% contribution for Maintenance and Other Operating Expenses (MOOE), 35% for personal expenses, and the remaining amount for capital outlay (Figure 6). FMB and ERDB recorded the largest capital outlay, mainly due to the NGP while BMB and LMB had the largest MOOE. However, expenditure data from years prior to 2013 included a significant charging on contractual personnel in the MOOE budget. For example, a detailed breakdown of the BMB budget for 2013 showed that 14% of the total MOOE budget comprised contractual staff. Although no detailed data was gathered for the other bureaus, the results of the personnel survey resulted to a contractual to permanent staff ratio of 1.5, 2.4, and 1.1, for the BMB, FMB, and ERDB, respectively. Due to revisions in accounting codes by the COA, data from 2014 onwards would have personnel expenses for permanent, contractual and casual staff all lumped in one category. Disaggregation according to programs showed that almost 90% of spending is assigned to operations for all bureaus (Figure 7). Support to operations include policy formulation, legal services, and data management while operations vary across the 4 bureaus but are organized according to the three Major Final Outputs of the DENR, as follows:

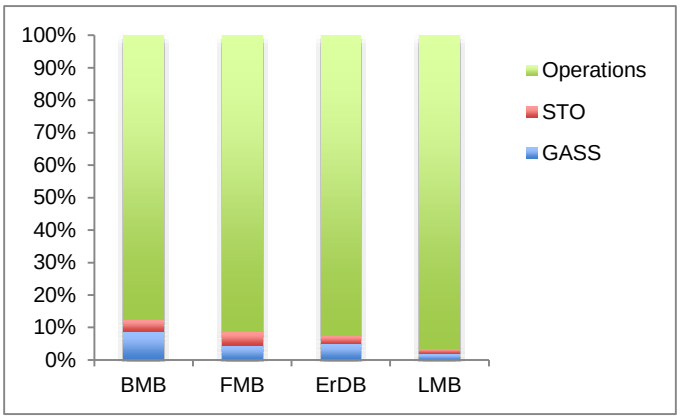

Figure 7. Disaggregation of expenditures according to programs, average from 2008-2013, by DENR bureau.

a. MFO 1 – plans, policies, standards and technologies, developed, promoted, monitored and evaluated.
b. MFO 2 –ecosystems and natural resources managed, protected, conserved, enhanced, and degraded ones rehabilitated.
c. MFO 3 – regulations and standards enforce, monitored and reported

Apart from the four bureaus, there are other bureaus, line agencies, and attached agencies of the DENR which have biodiversity functions. The line agencies include the Mines and Geosciences Bureau and the Environmental Management Bureau. From 2008-2013, the annual appropriations of the MGB and the EMB have been averaging PHP 700 million. From 2013-2014, the growth in appropriations for both bureaus increased by 41% for MGB and 33% for EMB (Figure 8). In the case of EMB, capital outlay comprised 26% of total expenditures, more than double the capital outlay share of the MGB. In 2014 alone, capital outlay expenses for the EMB increased by 67% due to purchase of Continuous Ambient Air Monitoring Equipment, for better evaluation and assessment of status of air quality nationwide. Figure 9 compares the budgets of three attached agencies to the DENR: NAMRIA, PCSD, and NWRB. While the budget of NAMRIA averaged Php 1.2 billion over the study period, that of NWRB and PCSD averaged Php 54 million only. A sharp increase in 2013 capital outlay appropriations for NAMRIA is due to purchase of survey vessels

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[10] Adopt a Creek

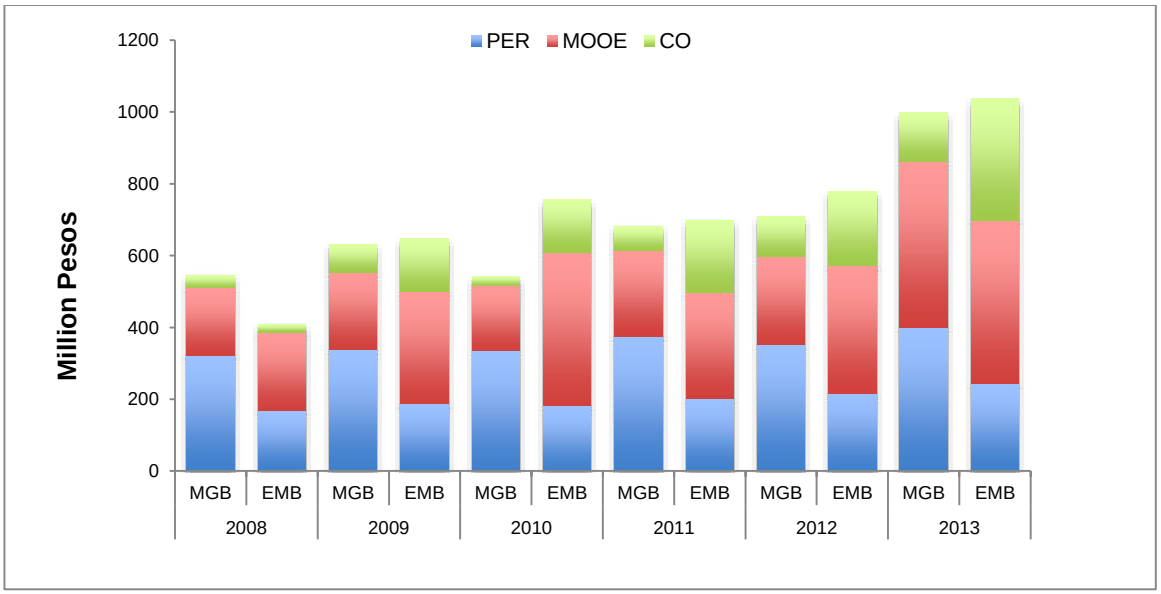

Figure 8. Appropriations of MGB and EMB from 2008-2013, by object of expenditure

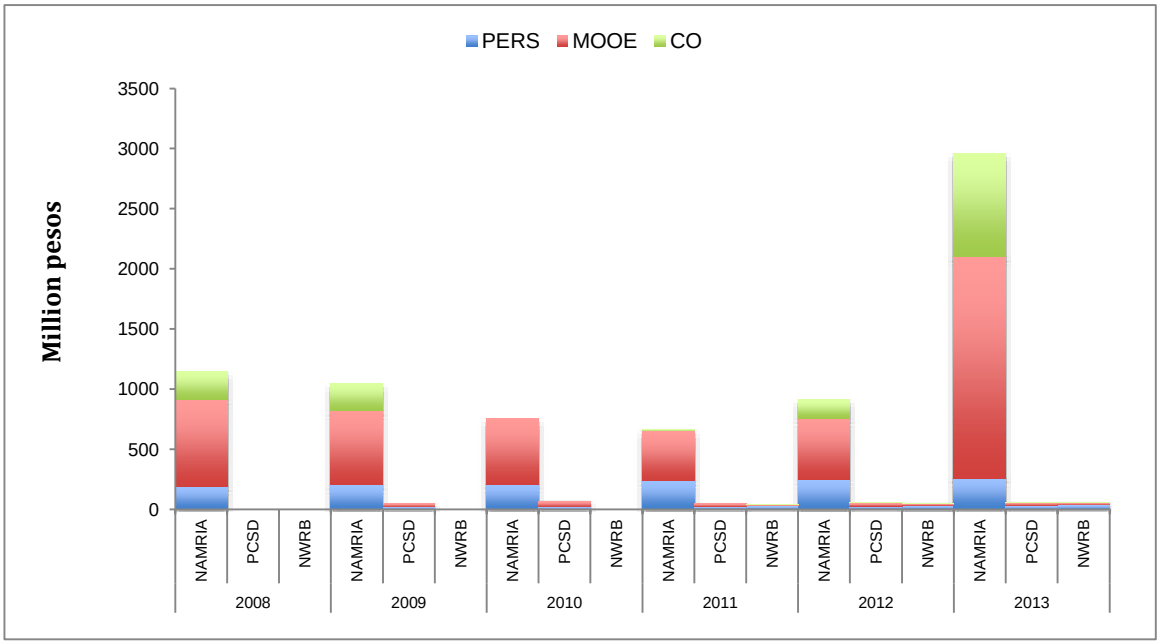

Figure 9. Appropriations of NAMRIA, PCSD, and NWRB from 2008-2013, by object of expenditure

Over the 6-year period covered by this study, the DENR staff bureaus, line agencies, and attached agencies have all posted positive growth in their appropriations. The LMB budget grew by 36% owing to one of the priority programs of the Aquino administration, which is the cadastral survey. NAMRIA and ERDB posted 26% growth rates over the same period due to investments in the unified mapping project and purchase of survey vessels for NAMRIA while the budget for ERDB is a result of their participation in the National Greening Program, in particular, investments in clonal nurseries. BMB's budget grew by 13% while PCSD registered the lowest growth at 3.3%.

5.3 Biodiversity budgets

From 2008-2013, the budget of the DENR was observed to be increasing at the rate of 23% per year. The biodiversity budget, although representing less than 20% of the total budget of the DENR has likewise been increasing, in fact at a faster rate of 34% per year for the same period (Figure. 10). The most significant biodiversity budgets within DENR comes from the BMB, FMB, and ERDB which together account for 85% of total (Figure. 11). FMB has been consistently garnering the largest share of the bureau budget and its increases from 2010 onwards are as a result of the NGP Program; unfortunately, not all of the NGP program can be enrolled as biodiversity spending given the program objectives / activities of the NGP. Likewise the LMB's budget increase been focused on the cadastral survey, i.e., no biodiversity relevance at all. Of the PHP 10 billion appropriated for the DENR bureaus, roughly 20% can be considered as biodiversity spending (Table 10).

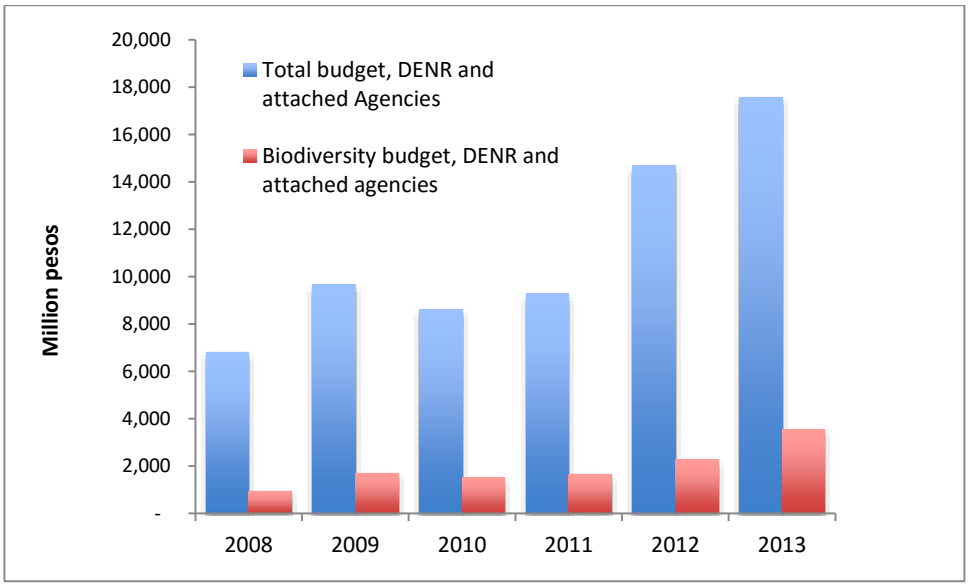

Figure 10. Trend in total budgets for the DENR as compared to biodiversity budgets, 2008-2013

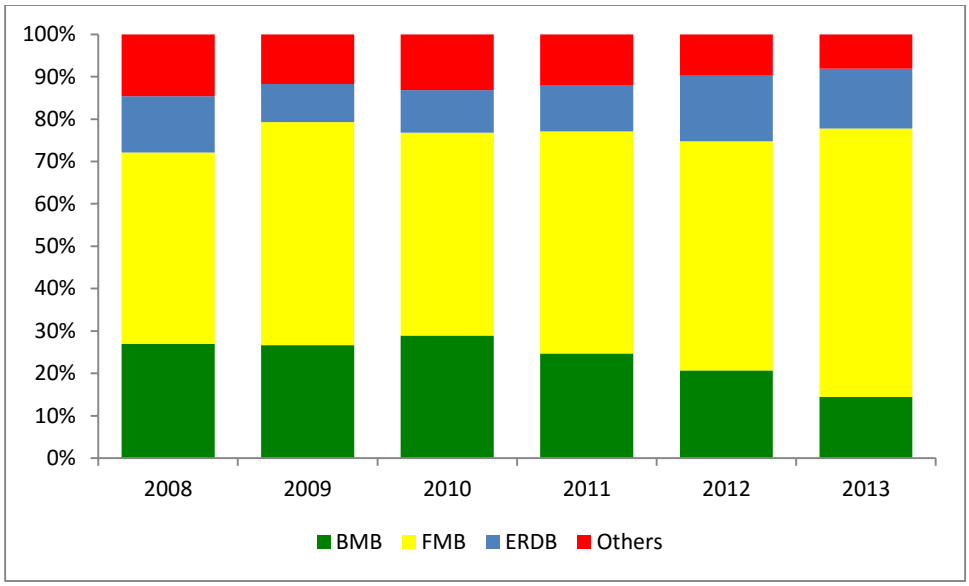

Fig. 11. Disaggregation of biodiversity budgets of the DENR Bureaus, 2008-2013

Table 10. Total average appropriations of DENR agencies from 2008-2013 and estimates of biodiversity spending

Agencies of the DENR	Total appropriations, 2008-2013 in Philippine pesos	Total biodiversity-relevant appropriations, 2008-2013 in Philippine pesos	% biodiversity appropriations
BMB	539,595,000	418,697,752	0.78
FMB	4,527,553,833	1,066,492,357	0.24
ERDB	541,384,000	244,547,023	0.45
LMB	1,714,098,833	75,123,347	0.04
EMB	694,672,167	118,808,691	0.17
MGB	1,511,915,000	11,445,120	0.01
NAMRIA	38,286,333	296,798	0.01
PCSD	57,675,600	34,681,314	0.60
NWRB	51,649,667	1,942,019	0.04
TOTAL	**9,676,830,433**	**1,972,034,420**	**0.20**

5.4 Official Development Assistance to the DENR

Foreign assisted projects (FAPS) provide a major source of funding for the biodiversity sector. An analysis of FAPs for the DENR reveals the stereotyping of projects with biodiversity as comprising a separate group vis-à-vis other sectors such as coastal / marine, environment, forestry, lands, and minerals, upon which specific elements or project activities can be framed as biodiversity-related. A listing of 324 projects, some having been started during the late 80's, yielded a total of USD 1.5 billion consisting of grants (39%), loans (35%) and government counterpart (25%). For the purpose of this study, we did not consider most projects occurring or completed prior to 2008 was done. Only one project was retained for the Lands Sector, i.e., the Land Administration Project 2. No projects are listed for the mines sector within the time frame of interest to the project; the last one registered was in 2004 which was a joint investigation of mineral deposits in Surigao.

From 2008-2014, the DENR generated more than PHP 6 billion in ODA, with 75% of these being classified as biodiversity-relevant (Table 11). The forestry sector was the best financed ODA sector followed by the coastal sector. Urban biodiversity also ranked high and this was mostly due to funding relevant to solid waste management and pollution management. Annex 6 presents a full listing of all ODA projects relevant to biodiversity and average annual estimates from 2008-2014.

Table 11. Summary listing of ODA to the biodiversity sector for DENR, in pesos

PBSAP Thematic Sector	2008	2009	2010	2011	2012	2013	2014	TOTAL
Forest	270,685,484	277,669,032	120,246,837	107,353,382	287,421,439	277,977,307	244,144,349	1,585,497,830
Coastal & Marine	133,894,882	138,719,525	51,885,785	127,112,185	110,048,142	98,828,824	101,641,316	762,130,659
Inland Wetlands	19,232,707	19,740,350	44,956,610	23,451,610	8,519,667	9,587,524	17,542,016	143,030,484
Caves	19,232,707	17,382,350	16,048,610	21,093,610	6,161,667	7,229,524	7,229,524	94,377,991
PAs	33,244,087	50,742,350	49,408,610	54,453,610	137,771,667	131,729,524	142,042,016	599,391,864
ABS	19,232,707	17,382,350	16,048,610	21,093,610	6,161,667	7,229,524	7,229,524	94,377,991
Agrobio-diversity	66,032,707	39,882,350	69,405,753	74,450,753	68,818,810	69,886,667	62,386,667	450,863,706
Urban Biodiversity	156,834,270	115,286,413	113,952,673	64,997,673	61,240,730	67,483,587	124,431,087	704,226,432
IAS	19,232,707	17,382,350	16,048,610	26,266,360	11,334,417	12,402,274	12,402,274	115,068,991
Total, all biodiversity ODA	737,622,259	694,187,070	498,002,098	520,272,793	697,478,203	682,354,753	719,048,773	4,548,965,949
Total, All ODA	1,100,152,018	845,058,835	653,261,363	698,674,915	914,588,320	899,464,870	980,359,840	6,091,560,161

5.5 Biodiversity Spending of the Other National Agencies

The other national agencies identified as contributing to the PBSAP actions are listed in Table 11 with their respective estimated initial BRFs and standardized BRFs. Specific budget items to which the BRFs have been applied are also indicated. The resulting estimates of biodiversity funding are presented in Table 12. An additional PHP 1.2 billion peso was generated by other national agencies with half of the amount coming from the DA and the DA-BFAR. The DA budget is based on the BRFs of the BPI and the BSWM, which are offices subsumed under the Office of the Secretary. Two agencies within the Department of Science and Technology (DOST), the PCAFNR and PCAMRD were merged into one agency, the PCAARRD. What are reflected in Table 10 are the appropriations of the individual institutions prior to the merger albeit using the personnel survey results of the newly merged agency. In addition to the regular budget of the Department of Foreign Affairs, the International Commitment Funds have also been analyzed to cull out biodiversity financing. A full listing is provided in Annex 8 while the summary amounts for biodiversity related funding vis-à-vis the total is shown in Table 12.

Table 12. Total average appropriations of other national agencies from 2008-2013 and estimates of biodiversity spending

Other National Agencies	Total appropriations, 2008-2013 in Philippine pesos	Total biodiversity-relevant appropriations, 2008-2013 in Philippine pesos	% biodiversity appropriations to total
Economic sector agencies			
Department of Agrarian Reform (DAR)	14,284,335,667	3,023,233	0.02%
Department of Agriculture (DA)	29,130,658,833	369,004,523	1.27%
DA-Bureau of Fisheries and Aquatic Resources (BFAR)	1,825,209,167	393,720,985	21.57%
Department of Public Works and Highways (DPWH)	10,967,119,333	2,265,787	0.02%
Department of Tourism (DOT)	1,714,098,833	75,123,347	4.38%
Department of Trade and Industry (DTI)	2,364,826,167	1,536,411	0.06%
Social sector agencies			
Commission on Higher Education (CHED)	1,117,095,333	47,721,810	4.27%
Department of Education (DEPED)	180,094,568,167	2,543,513	0.00%
Department of Health (DOH)	33,098,785,000	1,382,350	0.00%
Department of Science and Technology (DOST)	4,110,495,000	19,203,321	0.47%
Philippine Council for Agriculture, Forestry & Natural Resources Research (PCAFNR)	520,631,000	90,831,216	17.45%
Philippine Council for Aquatic and Marine Resources Research and Development (PCAMRRD)	32,817,833	10,194,980	31.07%
DOST Food and Nutrition Research Institute (FNRI)	138,766,667	416,681	0.30%
DOST Science Education Institute (SEI)	1,511,915,000	11,445,120	0.76%
DOST-National Research Council (NRCP)	38,286,333	296,798	0.78%

Other National Agencies	Total appropriations, 2008-2013 in Philippine pesos	Total biodiversity-relevant appropriations, 2008-2013 in Philippine pesos	% biodiversity appropriations to total
Housing and Land Use Regulatory Board (HLURB)	191,471,667	2,092,567	1.09%
National Anti –Poverty Commission (NAPC)	111,656,667	333,567	0.30%
Department of Social Welfare and Development (DSWD)	2,356,298,000	28,271,889	1.20%
National Commission on Indigenous Peoples (NCIP)	676,152,833	5,645,247	0.83%
Defense Services Agencies			
Armed Forces of the Philippines (AFP)	32,674,835,667	3,935,296	0.01%
Philippine National Police (PNP)	57,650,975,000	9,192,737	0.02%
Department of National Defense / National Disaster Risk Reduction Management Council	180,790,500	1,299,443	0.72%
Department of Transportation and Communication (DOTC)-Coast Guard	6,415,786,833	20,384,653	0.32%
General Services Agencies			
Metro Manila Development Authority (MMDA)	1,579,916,667	13,672,822	0.87%
Climate Change Commission	78,330,750	3,676,828	4.69%
Department of Foreign Affairs (DFA)	365,456,833	5,918,573	1.62%
Department of Finance (DOF)	8,833,037,333	5,201,187	0.06%
Department of Justice (DOJ) plus NBI	3,106,676,500	21,976,702	0.71%
National Museum	301,128,667	3,073,950	1.02%
National Commission on Culture and the Arts (NCCA)	23,402,667	59,642	0.25%
National Historical Commission (NHC)	144,678,167	10,833	0.01%
Philippine Information Agency (PIA)	224,306,833	208,975	0.09%
National Economic Development Authority (NEDA)	1,634,235,667	13,234,724	0.81%
NEDA Philippine Institute for Development Studies	33,600,000	162,144	0.48%
Department of Interior and Local Government (DILG)	2,364,826,167	1,536,411	0.06%
TOTAL	**399,897,171,751**	**1,165,200,823**	**0.29%**
International Commitment Funds	**18,575,167**	**8,257,500**	**44.45%**

5.6 Biodiversity Spending of Local Governments

Local governments in the Philippines have a significant role to play in the implementation of the PBSAP. There are several sources of funds from which PBSAP activities can be funded. First is the Internal Revenue Allocation (IRA), which is the share of local government in national taxation revenues. The share of local governments in IRA allocation is based on a formula determined by law.

The IRA is appropriated on an annual basis. In addition to the IRA, local governments have the power to create and broaden their own sources of revenue although for poor municipalities, the IRA is the main source of revenue.[11] Aside from the IRA, local governments also derive revenues from their share of national wealth such as mining taxes, royalties, forestry and fishery charges; local taxation such as real estate taxes; and loans and grants. Subject to the rules and regulations of the central bank and Securities and Exchange Commission, provinces, cities and municipalities are authorized to issue bonds, debentures, notes and other obligations to finance self-liquidating, income-producing development or livelihood projects.

The IRA is one of the national expenditure that falls under "automatic appropriations". The Local Government Code of 1991 (Republic Act 7160 or LGC), prescribes that the IRA shall be forty (40) percent of the national internal revenue collections for the third fiscal year preceding the current fiscal year. The total IRA is further subdivided among the different levels of LGUs:

- Provinces – 23 percent
- Cities – 23 percent
- Municipalities – 34 percent
- Barangays – 20 percent

The Code further prescribes that the share of each province, city and municipality shall be determined on the basis of the following formula:

- Population – 50 percent
- Land Area – 25 percent
- Equal sharing – 25 percent

The LGC requires each local government unit (LGU) to appropriate in the annual budget at least 20% of the IRA for development projects, which may include biodiversity spending as either social development or economic development projects. The Program, Project and Activity Coverage of development funds is guided by the Commission on Audit Memorandum No. 96-005, dated January 24, 1996, to wit:

Expenditures from the 20% Development Fund shall be limited to the following sectoral programs, projects or activities:

(a) Social Development
- Human and Ecological Security Initiatives (1/5 of the 20% Development Fund)
- Social Reform Agenda
- Kabuhayan 2000
- Tourism Development and Promotion
- Other Social Development undertakings highly supportive of job generation and livelihood opportunities

(b) Economic Development

- Seedling nurseries, demonstration farms and animal breeding stations, including the purchase or rent of implements
- Cooperatives development
- Livestock dispersal
- Fishery development and fish culture farming

11 Local Government Code of 1991, Chapter 1, Book 1, Section 3(d).

- Forestry development and conservation
- Local investment promotion

(c) Infrastructure Development

- Construction, repair or maintenance of post-harvest and similar facilities
- Construction, repair or maintenance of irrigation systems and facilities, including the purchase or rent of equipment
- Construction, repair or maintenance of provincial, city, municipal or barangay roads and bridges
- Construction, repair or maintenance of water and sanitation, as well as power and communication system facilities
- Construction, repair and maintenance of public buildings, such as, but not limited to the following: (i) Hospitals, health centers, day care centers and similar facilities; (ii) Provincial capitol, city hall, municipal hall and barangay hall; (iii) public schools; (iv) market and slaughterhouse; and (v) development of industrial areas.

Using data provided by the Protected Area Management Enhancement (PAME) Project of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), BIOFIN was able to estimate biodiversity spending of local governments, specifically municipalities. The PAME database contained project co-financing information per site, GIZ grant and the contribution from the project proponent and LGUs. In cases where more than one LGU was involved in the project, the LGU financing was equitably distributed according to the number of LGUs involved. In cases where the LGU is the proponent, then the amount entered in that category was used as the LGU contribution. A total of 119 projects was analyzed that included existing and new protected areas covering watersheds, forests, marine, rivers, caves, species sanctuaries, etc. All expenses were considered in its totality as biodiversity spending as most of them were contributing to the Aichi targets. A full listing of the PAME projects as well as the financial information is provided in Annex 7. Using PAME data resulted in an average spending of PHP 761,000 for the entire project duration which has an average of 2 years. Thus, the annual average spending is PHP 383,767 representing, on average, 4% of the 20% development fund derived from the IRA. The resulting estimate for total biodiversity spending of LGUs is PHP 517.8 million assuming that all 1,490 municipalities are spending similarly on biodiversity (Table 13.)

A comparison with the paper of Butardo-Toribio, Alino and Guiang (2009) that compiled data on local government expenditures for Marine Protected Areas resulted in an average spending of PHP 207,000 per year, representing 4% of the 20% development fund budget. Similar percentages were observed from data collected by BIOFIN from the Municipality of San Vicente (Palawan) and the Municipality of Alcoy (Cebu), i.e., 3.3% and 3%, respectively. Data for both San Vicente and Alcoy were derived from Statements of Income and Expenditures together with Appropriation Ordinances. Expenditures for Alcoy were for ecotourism, "clean and green programs[12]", and environmental protection which included maintenance of marine protected areas and support to enforcement. Actual disbursements for ecotourism and environmental protection are usually less than the appropriations while the clean and green disbursements were usually at least 50% higher than the appropriations based on 2008-2011 data. Meanwhile, the biodiversity expenditure of San Vicente was for a communal forest project, coastal law enforcement, and also "clean and green" programs.

Table 13. Summary data on LGU biodiversity spending

[12] Clean and green programs include general beautification of the locality which includes planting of trees, solid waste management and garbage disposal, painting of sidewalks and murals, etc.

Source of data	Number of LGUs	Average Biodiversity Spending	Average Biodiversity Spending as % of 20% IRA DF
PAME Data	119 municipalities	761,085	4%
Toribio et al	6 municipalities	207,000	4.50%
BIOFIN	Alcoy	213,170	3%
	San Vicente	1,300,000	3%
	Province of Palawan	19,900,000	6%
Total LGU Biodiversity Spending (based on 1,490 municipalities)		**PHP 571,813,633.99**	

5.7 Biodiversity Spending of the Private Sector

Private sector biodiversity spending was interpreted in this report as including spending by civil society organizations (NGOs) and the corporate sector. BIOFIN Philippines engaged with selected environmental NGOs and organized a presentation to a larger group of CSOs to generate data. Unfortunately, only two NGOs responded to the request. In addition to providing data on expenditures, one of the NGOs also underwent a personnel survey; thus, their biodiversity expenditures imputed the results of the survey.

A summary of the spending of both organizations is shown in Table 14. While not claiming representativeness for all the NGOs, the estimated biodiversity spending is significant; it is upwards of PHP 100 million pesos in the last 4 years. Given that both are environmental NGOs, it is obvious why the average ratio of biodiversity spending to total is high, i.e., average of 70%. In terms of priorities, NGO 2 indicated that 90% of their biodiversity spending is in the coastal sector with the balance in climate change while NGO 1 has a larger spread – protected areas, forestry, agrobiodiversity and inland wetlands. From 2008-2014, NGO 1 implemented a total of PHP 170 million worth of projects, 60% of which are focused on protected areas.

A gap in the analysis is the lack of data on sources of funds. For example, if the government is also the source of funds, this would constitute some double counting. Thus, the information gathered here is used as an indicative amount with the option to expand research at a future time.

In collaboration with the Philippine Business for the Environment (PBE), BIOFIN was able to secure some information from the corporate sector (including the government corporate sector). Five corporates provided some information on biodiversity activities but not all provided data on actual spending. Two are government owned and controlled corporations: Land Bank and the Development Bank of the Philippines. The rest are Sagittarius Mines, Holcim and Cemex, with the latter two engaged in manufacturing of cement. Table 15 presents a profile of biodiversity activities and actual spending of the sector. In reforestation projects, some of the issues experienced by the sector include survival of planted seedling, difficulty standardizing methodology and metrics, availability of local biodiversity experts, and mismanagement of downloaded funds in some communities. Landbank and Sagittarius Mines have technical, capacity, and local issues (politics, interference, refusal to change existing practices such as *kaingin* farming (slash and burn)). Cemex has partnered with NGOs such as Conservation International and Mindoro Biodiversity Conservation Foundation, thus diminishing risks of dealing directly with communities; however, they point out that the implementation period is not long enough to attain all objectives. Maynilad Water Service has invested mainly in reforestation activities in the Ipo and La Mesa Watersheds. Maynilad wants to see continuity in plans and commitments of partner agencies, including governments, and suggests for financing mechanisms to support long-term rehabilitation program.

The range of biodiversity spending for the two NGOs is USD 500,000 / year to USD 2.3 million per year while that of the private sector is USD 1,500 / year to USD 300,000 per year. As with the NGO estimates, these numbers will not be used to extrapolate biodiversity spending of the private sector

due to unrepresentativeness. However, the numbers generated in this exercise indicate that a huge resource can be mobilized in the private sector.

Table 14. Biodiversity expenditures of two NGOs in the Philippines

	2008	2009	2010	2011	2012	2013	2014
NGO 1							
TOTAL BUDGET (in Pesos)	30,723,249	36,578,971	37,751,798	36,831,915	34,375,539	40,297,872	32,627,305
Personnel	14,329,222	13,623,972	17,910,989	14,921,094	13,640,045	17,497,319	14,303,994
MOOE	16,208,637	22,400,746	19,311,930	21,339,947	20,248,430	22,313,013	17,660,989
Capital Outlay	185,390	554,253	528,878	570,874	487,064	487,540	662,322
Biodiversity Relevant budget							
Personnel	8,302,520	7,893,890	10,377,838	8,645,458	7,903,202	10,138,153	8,287,902
MOOE	11,021,873	15,232,507	13,132,113	14,511,164	13,768,932	15,172,849	12,009,473
Capital Outlay	126,065	376,892	359,637	388,194	331,204	331,527	450,379
NGO 2							
TOTAL BUDGET (in Pesos)			93,331,482	157,092,753	152,584,444	140,399,006	150,112,205
BIODIVERSITY RELATED (Personnel, MOOE, CO)			63,936,884	125,091,129	120,441,935	102,288,508	116,561,387
Support functions (admin, finance, etc)			29,394,598	32,001,624	32,142,509	38,110,498	33,550,818

Note: the NGOs have requested anonymity with respect to providing information on budgets.

Table 15. Profile of biodiversity activities and spending of selected private and government corporations

Name of corporation	Policy or management approach towards biodiversity	Biodiversity-relevant activities	Total spending / period of implementation
Development Bank of the Philippines	CSR program to promote forest biodiversity	44 reforestation projects, 16 are coastal and 28 are upland. Targeted area is 7194 hectares	PHP 138.6 million of which P90.8 has been released; project start is 2005, to present.
Land Bank of the Philippines	n.a.	Adopt-A-Watershed Program is a tripartite tree growing project with DENR and various People's Organizations under the National Greening Program of the Aquino Administration. The objectives are to: (1) Reforest and protect 40 hectares of denuded watersheds in six (6) sites nationwide (2 sites each in Luzon, Visayas and Mindanao); (2) Increase biodiversity (plants, animals and insects) in the planted areas; (3) Plant planting fruit-bearing trees, instead of the usual hardwood variety which will provide upland Dwellers with an additional source of livelihood; and (4) Help mitigate the impact of global warming and climate change, and minimize floods during typhoons in the covered areas.	PHP 200,000 from 2013-2015
Cemex	Protection of endangered species and promotion of environmental awareness and stewardship.	Adopt- A- Species: Whale Shark	PHP 3 million from 2008-2010
		Adopt- A- Species: Tarsier	PHP 3 million from 2011-2013
		Adopt- A- Species: Bleeding Heart Pigeon	PHP 300,000 in 2012
		Adopt-A- Species: Sea Turtle of Apo reef	PHP 3 million from 2015-2017
		Adopt- A- Species: Philippine Eagle of Davao	PHP 3 million from 2015-2017
Holcim	Protection of biodiversity resources near plants and concessions.	No data provided	No data provided

Name of corporation	Policy or management approach towards biodiversity	Biodiversity-relevant activities	Total spending / period of implementation
Sagittarius Mines	Preservation of the long-term health, function and viability of the natural environments affected by our operations.	The Adopt-a-CBFM Project is the key program in the development of buffer zones and designed to cater People's Organizations (PO's) with existing tenurial instrument under the Community Based Forest Management (CBFM) Program of the DENR. A Memorandum of Agreement with selected POs in the municipalities of Tampakan and Kiblawan in South Cotabato were signed.	PHP 7.4 million in 2011
		During SMI's Mine Project Environmental Impact Assessment (EIA), environmental specialists undertook detailed biodiversity studies to establish extensive flora and fauna baseline data and develop proposed biodiversity and land management strategies	PHP 92.5 million from 2008-2014
		SMI implemented a Reforestation Program known as " Maleh To Kayu ", a B'laan phrase that means "let us plant" that was signed by Sec. Mike Defensor last January 2005 in Brgy. Tablu, Tampakan, South Cotabato. In close partnership with DENR, LGUs, NGOs, POs and the community, the program envisions a 5-Year comprehensive and sustainable reforestation program of an estimated target area of 1,000 hectares located in the open and denuded forest lands, including watersheds and river banks within the three municipalities.	PHP 52.5 million from 2008 to 2015

Name of corporation	Policy or management approach towards biodiversity	Biodiversity-relevant activities	Total spending / period of implementation
Maynilad Water Service Inc	Adheres to triple bottom line: People, Planet, Profit; *"Minimize and manage the adverse impacts of our operations on the environment by optimizing the use of our resources, reducing the generation of waste, and controlling the emission of pollutants to air, water and land"*	Plant for Life: Save Ipo Watershed	PHP 700 thousand from 2008-2016
		Rehabilitation Program (w/ Bantay Kalikasan and MWSS)	PHP 28 milion from 2008-2016 with PHP 90 million and PHP 28 million budgets in 2015 and 2016, respectively
		Plant for Life: Save Bacoor-Canacao-Manila Bay	PHP 75 thousand
		La Mesa Watershed Rehabilitation and Protection	PHP 3.5 million

5.8 Summary Biodiversity Spending for the Philippines

Table 16. Summary biodiversity spending, national agencies and local governments

National and local biodiversity spending	Average Biodiversity Spending from 2008-2013, in pesos
National government	
Economic Sector	4,042,028,105
DENR and attached agencies	1,943,951,956
DENR ODA	638,319,529
DENR Locally funded projects and loan proceeds	615,082,333
DA and BFAR	762,725,508
Others	81,948,778
Social Sector	206,243,114
Defense Sector	34,812,129
General Public Services	76,304,027
International commitments	8,257,500
Local governments	571,813,634
TOTAL	**4,939,458,509**

Based on past estimates of appropriations relevant to biodiversity, the level of biodiversity spending is close to PHP 5 billion per year (Table 16). More than 60% of the funding is contributed by DENR and its attached agencies with another 25% comprised by ODA and locally funded projects and loan proceeds (Figure 11). The DA and the BFAR together contribute another 15% to biodiversity spending. Local governments comprise 13% of the total while the other sectors contribute another 10%. Figure 12 shows the disaggregation of biodiversity funding of the DENR (bureaus, agencies, projects and ODA) according to the nine PBSAP thematic sectors with the forestry and coastal sectors accounting for at least 60% of total funding. Based on GAA data from 2008-2013, a disaggregation of DA and BFAR budgets according to PBSAP thematic sectors is shown in Figure 13. Half of the funding is assigned to the coastal sector, followed by agrobiodiversity and inland wetlands. No DA and BFAR funding is assigned to protected areas, caves and urban biodiversity. The funding priorities are more dispersed among the other sectoral agencies with the top sector being coastal and inland wetlands (Figure. 14). The Coast Guard, the Department of Tourism and the Department of Science and Technology, mainly through its network of state colleges and universities, contribute the biggest chunk of funding. As for local government spending, all thematic sectors were given equal weights.

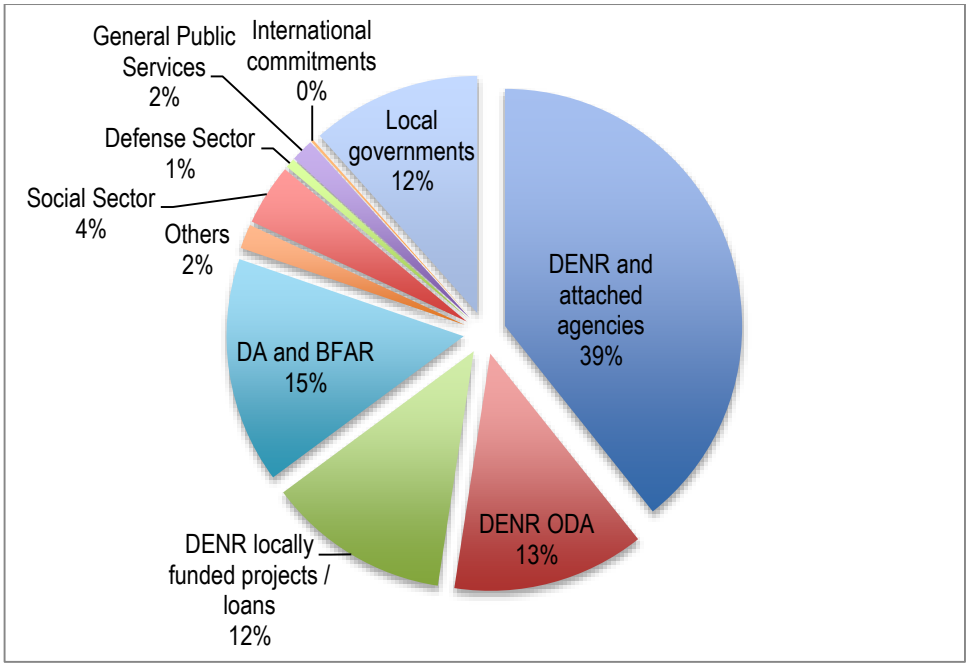

Figure 11. Distribution of total biodiversity spending according to major sectors

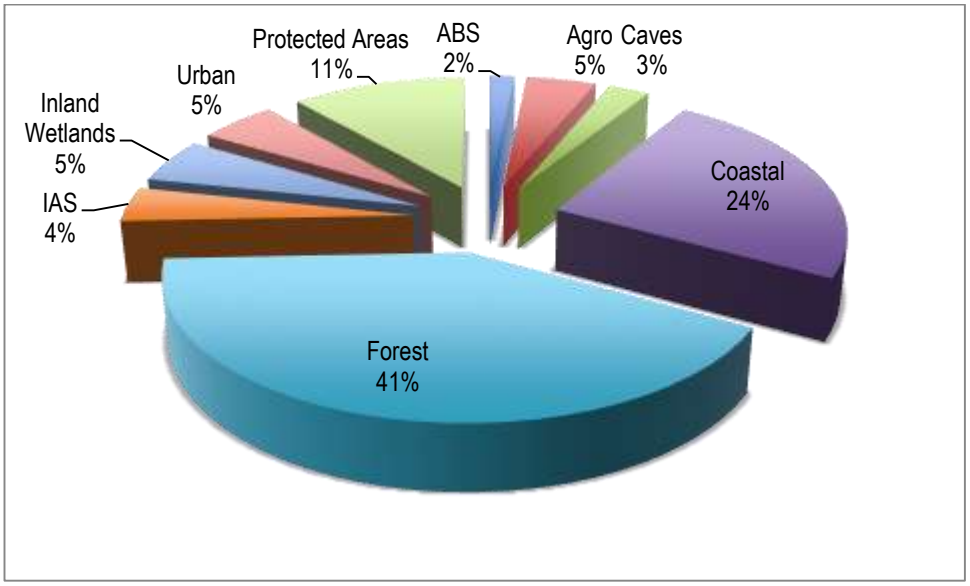

Figure 12. Distribution of biodiversity spending of the DENR according to PBSAP thematic sectors

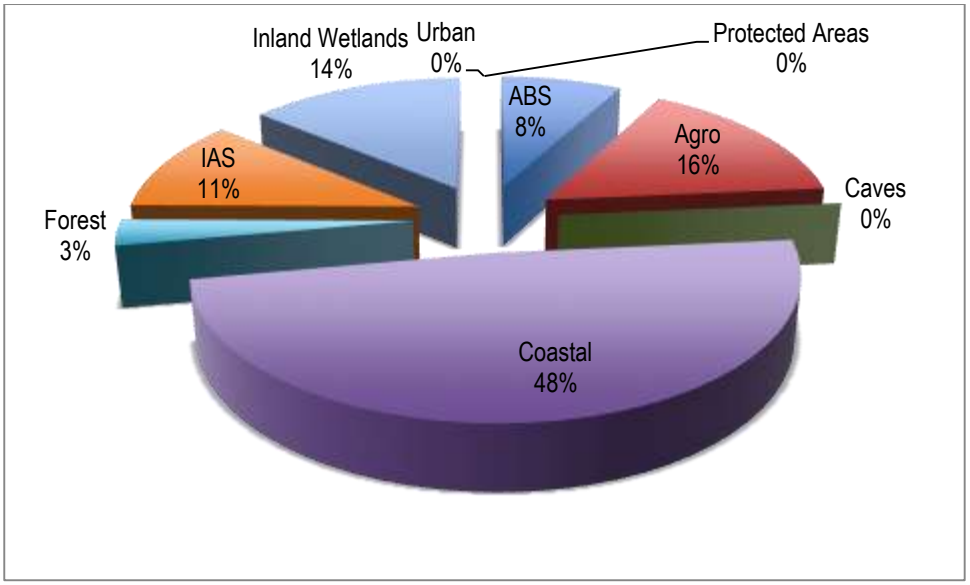

Figure 13. Distribution of biodiversity spending of the DA and BFAR according to PBSAP thematic sectors

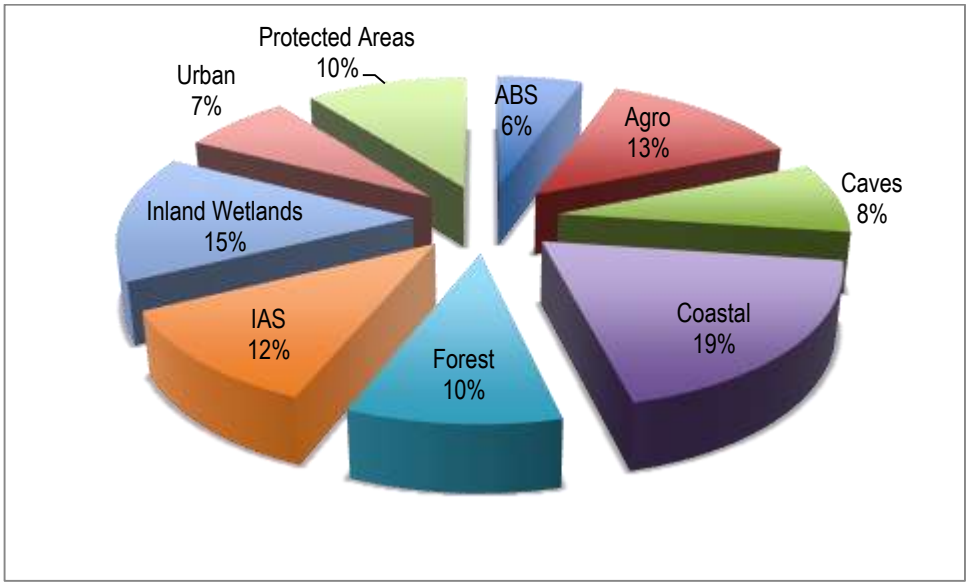

Figure 14. Distribution of biodiversity spending of the social sector, defense, and general services sector

VI. DIGGING DEEPER: WHAT THE PPBER RESULTS ARE TELLING US

Biodiversity spending, the economy, and ecosystem values. To say that the biodiversity spending is miniscule or sufficient requires setting a context depending on various parameters: scale (current budget vs. national budget vs. agency budget vs. PBSAP requirements); efficiency of spending; mandates of agency (whether the budget covers all annual and long term plans); and lastly, the asset valuation of biodiversity itself as generating its own benchmark investment requirements. GDP, measured at constant prices from 2008-2013, averaged 5.8 trillion pesos per year. Meanwhile the estimated biodiversity spending of all agencies (including ODA) is 0.08% of GDP for this period. The country's national budget stood at 1.6 trillion pesos for the same period: biodiversity spending represents 0.31% of the national budget**.** For example, biodiversity spending can be compared to the share of the Agriculture, Fishery and Forestry Sector contribution to the GDP, basic sectors which depend on biodiversity. These sectors' contribution to GDP from 2008-2013 is 11% while the fishery sector alone contributes 2.5% to GDP. Thus, income derived from the fishery sector is roughly 31 times the current biodiversity spending.

Carandang (2008) computed for the Total Economic Value (TEV) associated with closure of all remaining open access forests, i.e., putting them under a formal tenure system with management plans developed and implemented on the ground. Ecosystem services arising from consumptive and non-consumptive provisioning services (timber and non-timber products), carbon uptake, and erosion control resulted in an estimate of Php 400 million per hectare and a minimum net present value of Php 55 billion using a 25-year horizon and an interest rate of 16%. In Cruz-Trinidad et al (2011), the coastal protection value of coral reefs was estimated using proxy values (replacement costs) David et al. (2010) estimated for the cost of a seawall with 3 m height, 1 m thickness, 1.5 m underwater base height, and 3 m underwater base thickness. Each kilometer of coral reef affording protection to coastal areas is valued at Php 38.2 million pesos (USD 850,000). When the comparisons are made against values of ecosystem services, it is easy to declare the current spending as inadequate to maintain assets of such enormous value.

Budgeting and spending of biodiversity agencies. The DENR is the country's main proponent of biodiversity. As previously shown, DENR and its bureaus contribute more than 60% or about PHP 3.2 billion yearly to biodiversity spending. BMB, the main bureau tasked to manage the biodiversity sector, comprises an average of 4% relative to the total budget of the DENR (Figure. 15). However, the inclusion of the budgets of the ERDB and the FMB raises the biodiversity spending to about 16% (Figure.16) of DENR's budget. This is not a simple play of numbers because, in fact, both agencies have inherent biodiversity functions although they do not regard it as such (especially so for the FMB). Recall that the personnel survey results presented earlier revealed a low level of understanding and/or acceptance of biodiversity at FMB. Bringing up this nuance is not so much as reiterating the facts uncovered by this study but also insinuating how some "low hanging fruits" can be picked to increase biodiversity spending and ultimately, to create more impact.

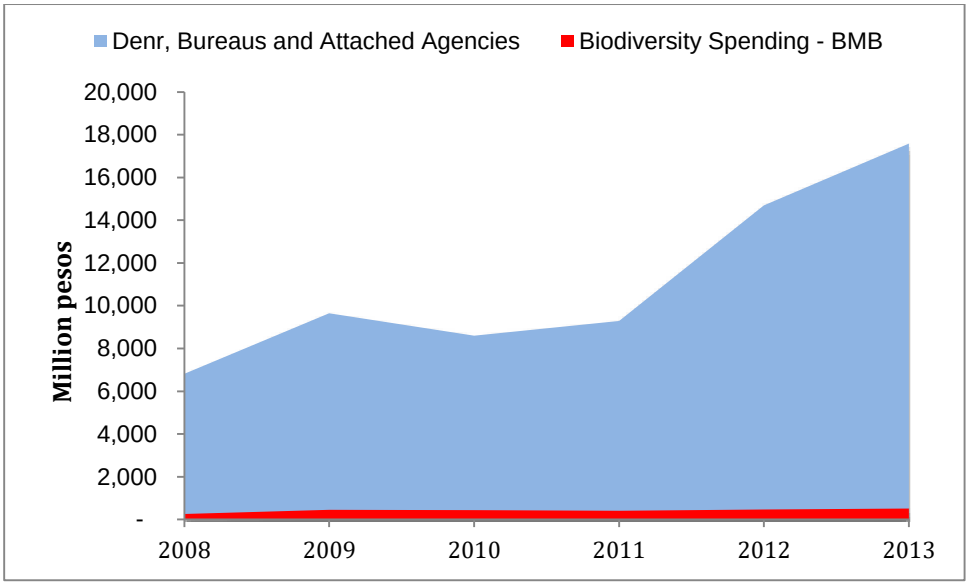

Figure 15. Annual operating expenditure for biodiversity, BMB vs. the DENR (including all bureaus and attached agencies), 2008-2013

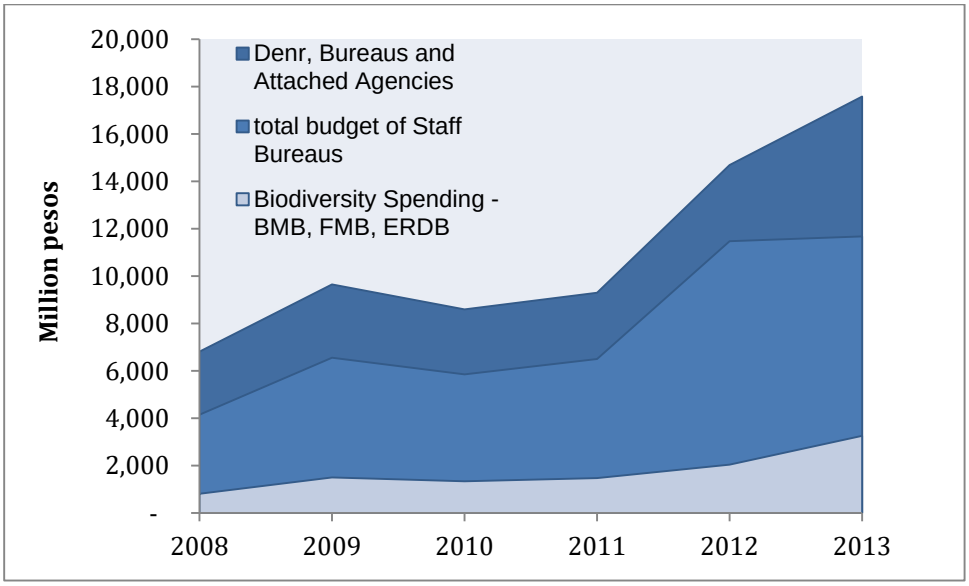

Figure 16. Annual operating expenditure of the DENR, staff bureaus and biodiversity budget, 2008-2013

Spending of the other sectoral agencies including the DA and BFAR. Comprising 15% of total biodiversity spending, the DA and BFAR are agencies which can potentially improve or reduce the biodiversity status in agriculture, forestry, inland wetlands and coastal sectors. Apart from the organic agriculture program – which is a good start – there are vast opportunities to influence biodiversity spending across the crops and livestock sector as well as management of invasive alien species. In the case of BFAR, the enactment of the new fisheries law (Republic Act 10654) bodes well for enhanced protection of fisheries against any form of illegal, unregulated, and unreported fishing. On the other

hand, BFAR has also received additional funding for the construction of fish landing sites in collaboration with the National Anti Poverty Commission but has only partially fulfilled its obligations. Considering that the budget of the DA has been upwards of 40 billion in the last three years from 2014-2016 (only for current operating expenditure), the spending for biodiversity is not just tiny but DA spending could result in biodiversity damaging actions if it unleashes this financial muscle towards food security objectives without due consideration to its biodiversity impacts.

While the contribution of the other sectoral agencies (defense, social services, general services) comprise only 10% of total biodiversity spending, and there are at least twenty agencies counted in this category, efforts to recognize and maximize their biodiversity efforts is only partly financial in nature. More compelling are the broad range, implicit, and long-term contributions to biodiversity by way of education, scientific research, enforcement, policy planning, and delivery of social services that deter further destruction of biodiversity resources (health and education).

Spending of local governments. Currently estimated to contribute at least 12% to biodiversity spending, local governments have a lot of potential to contribute to, and a lot at stake as well, in biodiversity efforts. Estimates are based only on co-financing provided to the GIZ PAME projects but comparisons with previous budgeting exercises confirm the low and oftentimes, sporadic funding at the local level. Opportunities to test novel financial instruments such as Payments for Ecosystem Services and bond flotation can be considered as well. However, a lot more effort is required to fully engage local governments in the PBSAP process.

Budgeting and (actual) spending of biodiversity agencies. Data on actual disbursements are available from the Statement of Allotments, Obligations, and Balances (SAOB) as a supplement to the GAA or appropriations analysis. However, the information is not available at a level of detail where biodiversity spending can be sufficiently deduced. The agency-level SAOB for DA and DENR from 2011 to 2013 indicate a general improvement in fund utilization for both agencies (Figure.17). In 2011, fund utilization or obligation rate of the DA was at 70% while it was 85% for the DENR. By 2013, utilization rates have reached 90%. Table 17, however, presents a more detailed view of bureau / specific agency performance. For the DA, it is the BFAR which registered the largest dip in 2013 while it is the NAMRIA which generated the lowest rates for the DENR. The failure to fully implement the unified mapping project was the bane of NAMRIA while the BFAR performance is discussed in more detail below.

Table 17. Fund utilization rates of the DA and DENR from 2011-2013, disaggregated into biodiversity-relevant agencies, in %

Agencies of the DA and DENR	Utilization rates (obligated / allotted), in %		
	2011	2012	2013
Department of Agriculture	70	91	90
Office of the Secretary	68	91	92
Agricultural Credit and Policy Council	95	96	98
Bureau of Fisheries and Aquatic Resources	87	97	71
Fertilizer and Pesticide Authority	96	95	84
Fiber Industry Development Council	98	99	96
Livestock Development Council	93	97	90
National Agriculture and Fisheries Council	99	99	88

Agencies of the DA and DENR	Utilization rates (obligated / allotted), in %		
	2011	2012	2013
Department of Environment and Natural Resources	85	84	91
Office of the Secretary	84	83	92
Environmental Management Bureau	82	98	93
Mines and Geosciences Bureau	85	91	88
NAMRIA	100	84	84
NWRB	90	96	97
PCSD	100	100	100

BMB's budget performance from 2010-2013 indicates (i) a consistent increase in allotment and (ii) generally improved performance (Figure. 18) Except for 2011 where the unobligated amount is 24% of total allotment, the performance of BMB has been good with an average of 90% and upwards spending rate. Data obtained from the SAOB also shows that for all years the allotment is greater than the appropriation. The increase in allotment is PHP 50 million in 2011 and PHP 143 million in 2013. Such adjustments are initiated by other stakeholders (such as patrons from Congress). The ability of the agency to obligate the funds is highly dependent on the timing of release. Increased allotment in 2011 was attributed to downloading of funds from the ADB-funded Integrated Coastal Resource Management Project (ICRMP).

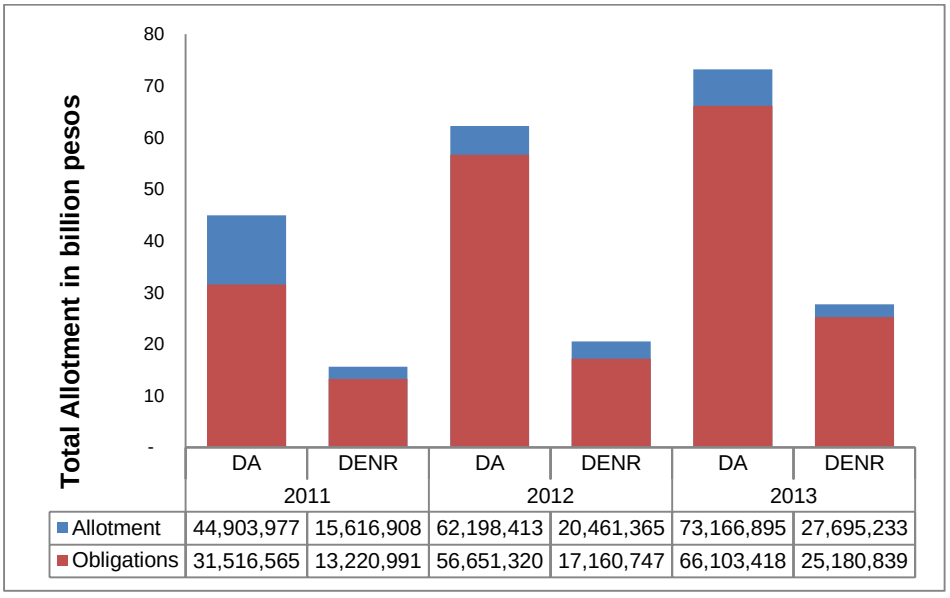

Figure 17. Summary of the statement of allotments and obligations of the DA and DENR from 2010 to 2013

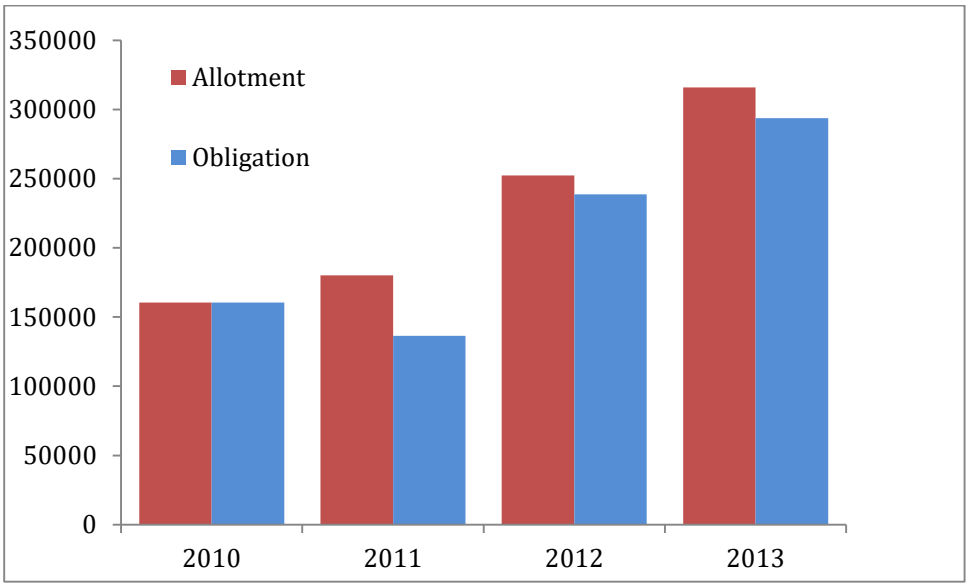

Figure 18.Summary of the statement of allotments and obligations of the BMB from 2010 to 2013

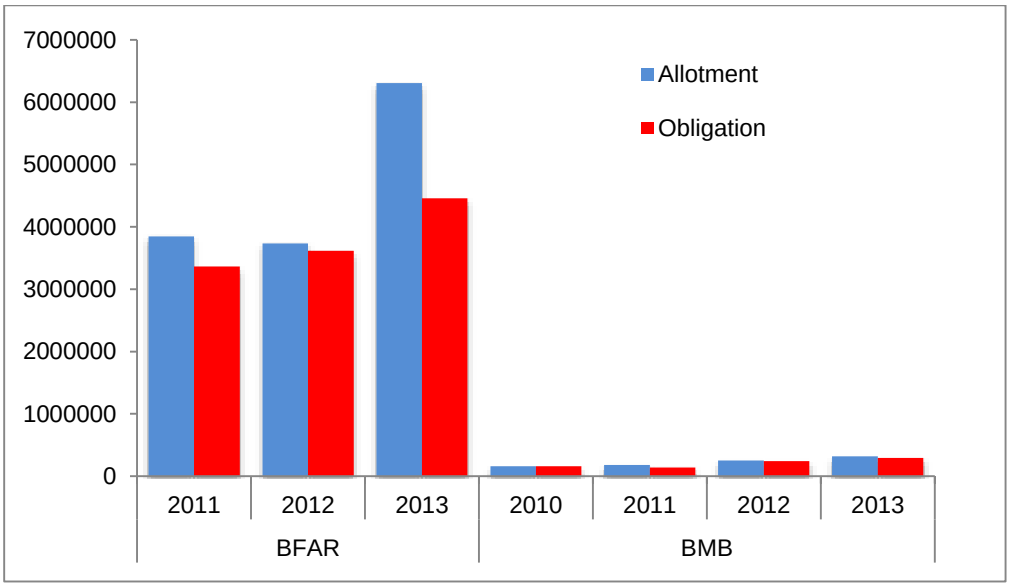

Figure 19. Summary of the statement of allotments and obligations of the BFAR and BMB from 2010 to 2013

Outside of the DENR, it is the BFAR which has the largest biodiversity spending. While the BMB average appropriation from 2008-2013 is PHP 420 million for the entire biodiversity sector (including regional offices), and PHP 227 million as the bureau budget, that of BFAR, which is a line agency of the

DA, is 20x more than the BMB. Figure. 19 compares the allotments and obligations of the BMB and BFAR and illustrates the disparity of funding. BFAR was not able to move Php 442 million of its capital outlay under the National Fisheries Program in 2011 for land improvement, office buildings and other structures such as tissue culture lab, seaweed nurseries, and sea cages. In 2012, another PHP 100 million was the unobligated amount again arising from MOOE and CO allotments under the NFP. Accomplishment records for 2012 indicate a performance level of 24%, for seaweed seedling dispersal; 33% for market research activities; 31% for postharvest equipment and facilities for groups. In 2013, the unobligated amounts are estimated at 30%.

The improvement in fund utilization can be attributed to the performance incentives authorized by DBM for financial target attainments of 90% and above. Manasan (2012) affirms this in point 3, below, and offers further insights into improvements in the performance budgeting and management system, as follows:

> *"First, Administrative Order No. 25 ("Creating an Inter-Agency Task Force on the Harmonization of National Government Performance Monitoring, Information and Reporting Systems") aims to streamline and simplify all existing monitoring and reporting requirements and processes into a single Results-Based Performance Management System (RBPMS).*
>
> *Second, the Department of Budget and Management (DBM) will deepen the implementation of the Organizational Performance Indicator Framework (OPIF) by requiring all departments and agencies to review and recast, if necessary, their major final outputs (MFOs) and performance targets, so as to better link them with the strategic objectives of the Social Contract.*
>
> *Third, government has also adopted a performance-based incentive system that aims to reward the good performance of public servants, thereby giving them more impetus to pursue excellence in their respective jobs.*
>
> *Fourth, the General Appropriations Act (GAA) will serve as the budget release document starting with the implementation of the 2013 budget. This move is aimed at minimizing delays in project implementation due to bottlenecks in the processing of requests for the release of allotments. In line with this, government agencies have been advised to conduct pre-procurement activities in the fourth quarter of 2012, in anticipation of Congress' approval of this proposed Budget so tha contracts can then be awarded on the first working day of the following fiscal year.*
>
> *Fifth, all appropriations will have a validity of one year starting in 2013. This measure is meant to improve the predictability of the budget execution process as the system moves away from a policy that allows the carry-over of appropriations for maintenance expenditures and capital outlays to the following fiscal year.*
>
> *Sixth, the administration introduced the bottom-up budgeting approach (BUB) in order to provide the grassroots with a voice in the allocation of public funds. Under the BUB, the 609 poorest municipalities were asked to develop Local Poverty Reduction Action Plans with local communities and civil society organizations in their jurisdictions. These plans were then submitted to the national budget for inclusion in the 2013 budget. A total of 593 of these municipalities submitted plans for community determined, anti-poverty interventions (such as agriculture and fisheries support, potable water supply, public healthcare, and basic education) worth a total of P8.37 billion".*

If such efficiency in spending is sustained and if, as stated in the above, the budget actually becomes guidance on spending within the given fiscal year, then the challenge is really to imbue the

agency budgets with the biodiversity agenda at the stage of planning. This is to ensure that the appropriations consistently reflect budget priorities. As emphasized in the earlier discussion on budget processes, it is the budget preparation phase which should be surmounted as a first level challenge.

VII. EXPENDITURE PROJECTIONS

Expenditure projections. Several expenditure scenarios were developed based on a selected suite of assumptions, as follows:

a. **Scenario 1, Business-as-Usual.** In this scenario, the biodiversity agenda is not yet mainstreamed thereby encountering resistance in securing additional budgets. Scenario 1 assumes that the DENR budget, consisting of all its core and non-core biodiversity bureaus, ODA funds, and locally funded projects, is faced with a budget cap or ceiling. Growth in budgets are forthcoming only through inflationary increases to account for mandatories[13]. This scenario essentially characterizes the current budgeting practice and the challenges associated with arguing for more biodiversity spending. Other government agencies with biodiversity functions are ignored in this scenario as well as LGU budgets. The total budget for Scenario 1 is PHP 3.2 billion at baseline and PHP 58.5 for the full duration of PBSAP.
b. **Scenario 2, Successful Mainstreaming.** Scenario 2 sees a successful mainstreaming of biodiversity; thus, indicating contributions of other national agencies and local governments. No ODA contributions are included in this scenario. Total budget is PHP 4.3 billion at baseline.
c. **Scenario 3, Successful Mainstreaming Extends to Global Community.** Under this scenario, mainstreaming is successful up to the global level; thus including ODA funds. The annual increments up to 2028 are also based on inflation rates as used in Scenario 1. Total budget envelope under Scenario 3 is PHP 4.9 billion.
d. **Scenario 4, Successful Mainstreaming and Increased investments among Core Agencies.** This scenario looks at an increase in budgets of the DENR agencies and locally funded projects by an annual average of 10% for the duration of PBSAP implementation. Other sectors are also seen to contribute to implementation of PBSAP albeit no increases are incorporated for these agencies outside of the DENR. Likewise ODA funds are maintained at 2015 levels, i.e., no increase.

A comparison across the four scenarios indicate that Scenario 4 is the superior scenario and will require mainstreaming across the core biodiversity agencies coupled with an increase in budget (Figure 22). The assumed increase at 10% is minimal and is only 6% net after accounting for inflation of 4%. However, the sufficiency of funds will require a comparison with required costs of PBSAP. Estimates of financing gaps are contained in the result of Workbook 2 B.

[13] Inflation rate is 4% per year.

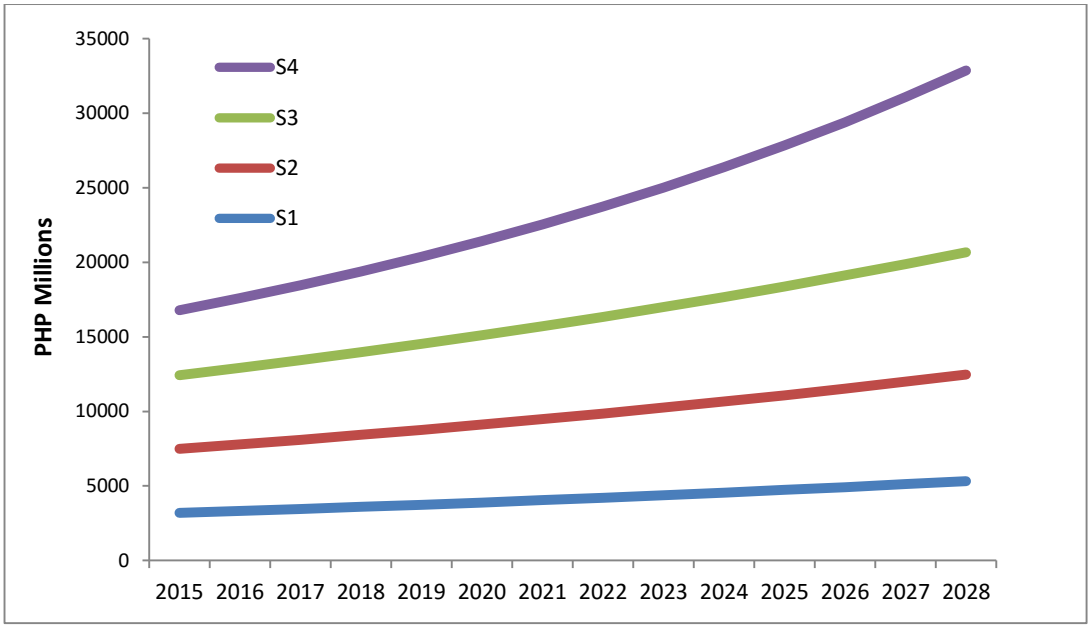

Figure 20. Comparison of budgets under varying scenarios.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The completion of the PPBER for the Philippines has achieved the following. From the point of view of BIOFIN as a methodology, the PPBER for the Philippines fulfilled its objective of estimating baseline funding levels for biodiversity, determine sources and levels of funding, and provided funding projections based on various investment and mainstreaming scenarios. From a practical perspective, the completion of PPBER allowed the Philippines to utilize the numbers for financial reporting to CBD. Finally, the consultations organized in the course of implementing the PPER supported a socialization process for the PBSAP; allowed a greater awareness of the importance of biodiversity; and contributed to an incipient network of institutions who have signified their interest in implementing PBSAP.

From the application of the BIOFIN methodology, the main conclusions are as follows:

- Based on an analysis of time series of budgets from 2008-2013 among agencies contributing to the 20 Aichi targets, the baseline financing for biodiversity in the Philippines was estimated at PHP 5 billion (or USD 110 million). This estimate comprises budgets of core biodiversity agencies notably the DENR and the DA-BFAR, non-core agencies including the social sector, general services sector, and defense sector agencies, as well as local governments.
- The baseline financing for biodiversity represents 0.08% of GDP and 0.31% of the national budget for this period of analysis. A further comparison of this spending with ecosystem services derived from active and passive use of biodiversity resources indicates a significantly low investment to benefits ratio.
- From 2008-2013, the budget of the DENR was observed to be increasing at the rate of 23% per year. The biodiversity budget has been increasing at a faster rate of 34% per year for the same period, although it's contribution to total budget is less than 20% of the total.
- Opportunities to increase funding through realignment of budgets, propped by effective mainstreaming amongst core and non-core biodiversity agencies, exist and shall guide future BIOFIN interventions in the Philippines. In the DENR alone, budget allocation for biodiversity can increase from 4% to 16% by mainstreaming with other bureaus such as the Forest Management Bureau and the Ecosystems Research and Development Bureau.
- Local governments contribute PHP 0.5 billion pesos or USD 13 million based on protected area expenditures alone. Current funding levels for local governments comprise an average of 4% of the 20% development fund representing share of national taxes. Since the implementation of NBSAP actions is at the local level, an increase in local government spending is essential either by increasing current allocation and expenditures, generating revenues, mainstreaming into other sectors, and achieving efficiencies such as through inter local government collaboration.
- While some attempts have been made to estimate the contribution of the private sector, including both non-governmental organizations and the corporate sector, the small sample size and the unknown population frame, did not allow further extrapolation.
- Some divergence is observed between amounts budgeted, obligated, and spent – indicating some degree of inefficiencies due to timing of releases, absorptive capacities, and poor planning, in general; however, the ratios between allocation and obligation have improved for the main biodiversity agencies. Said observations point to the importance of "making the business case" beginning at the stage of budget planning.
- Another key insight emerging from the PPBER work is the lack of understanding for biodiversity (and necessarily biodiversity expenditure) as confirmed by the results of the

Personnel Survey. There is some noticeable divergence between personnel perceptions on their biodiversity-related functions vis-à-vis institutional mandates as defined by policy. Some basic guidance on biodiversity actions is required and linkages (as well as nuances) with climate change and environment need to be established. Thus, in terms of BIOFIN Interventions, the sequence should begin with a) better understanding of biodiversity; b) tagging of biodiversity expenditures; and c) realignment of budgets.

From a methodological perspective, the PPBER results shall be used to estimate the financing gap and formulate finance solutions. The following are recommendations contributing to the identification of suitable financing solutions.

- **Consolidate, mainstream, and formalize the processes initiated by the Biodiversity Expenditure Review through the following actions:**
    - **Launch a biodiversity tagging process within the DENR, including the regional offices.** Similar to the climate change tagging which focused on adaptation and mitigation, this can guide BMB as well as the other agencies of the DENR in identifying activities contributing to PBSAP and accounting for biodiversity spending. This activity will respond to one of the main challenges invoked in this exercise which is the absence of a clear definition of biodiversity activities and necessarily, spending. Said activity will likely cover possible negative biodiversity expenditures which BIOFIN also seeks to address. Participation of key biodiversity experts from the various PBSAP thematic areas shall be critical. Apart from funding these activities, BIOFIN can tap experts who have been involved in the development of biodiversity typologies which can serve as templates for the Philippines. The results of the workshop should be developed into a manual of operations for use within the DENR to assist in tagging activities.
    - **Develop a manual for biodiversity tagging.** Said manual will contain the procedures used in tagging including possibly relevance factors or coefficients to ensure that annual biodiversity budgets and expenditures can be tracked
    - **Establish a knowledge management (KM) system within the DENR.** The KM system will allow an annual monitoring of biodiversity activities and funding levels. It is recommended for the BMB, who shall be the PBSAP secretariat to set up the tracking system that should be flexible enough to allow for increasing reportage.
    - **Develop a policy that shall recognize and enjoin all agencies within the DENR to report on biodiversity tagging results.**
    - **Coordinate with the Department of Budget and Management to expand the tagging to include non-core biodiversity agencies.**
- ***Consider how local governments can increase funding for biodiversity either through realignment, increased access to earmark funds, or through generation of revenues on site***. A separate proposal can be prepared to secure additional funding from BIOFIN for the following steps:
    - Prioritization of local governments where PBSAP implementation can be localized. BIOFIN may conduct scoping missions to also involve DENR regional offices.
    - Implementation of the full BIOFIN methodology in said local government
    - Development of a financing plan which may include:
        - Training to access earmarked funds
        - Development of template proposals
        - Setting up a monitoring system

- **Consider how private sector can increase funding for biodiversity through an increase in Corporate Social Responsibility (CSR) allocation, direct investments, and co-management of specific activities outlined in NBSAP. Towards this end, BIOFIN should:**
    - Continue engagement with private sector by developing a menu of programs (indicating site, type of activity, partnership arrangement, and possible entry points)
    - Advocating for the issuance of a DENR order on the implementation of the public-private partnership law with respect to environmental resources

ANNEXES

Annex 1. List of Stakeholders and their Roles in the Achievement of the Aichi Biodiversity Targets

National Government Agency	Aichi Biodiversity Target																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Armed Forces of the Philippines					*															
2. Climate Change Commission	*		*							*										
3. Commission on Higher Education	*			*						*									*	
4. Department of Agrarian Reform				*							*									
5. Department of Agriculture		*	*	*	*		*	*	*		*					*			*	
6. DA - Bureau of Fisheries & Aquatic Resources	*	*	*	*	*	*		*		*	*	*		*	*				*	
7. DA - Bureau of Plant Industry	*	*		*					*				*					*	*	
8. DA - Bureau of Soils and Water Management															*					
9. DA - National Fisheries Research & Development Institute	*					*				*		*							*	
10. Department of Budget & Management		*								*	*				*					
11. Department of Education	*			*						*								*		
12. Department of Environment & Natural Resources		*		*	*															
13. DENR -Biodiversity Management Bureau	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	
14. DENR-Ecosystems Research & Development Bureau	*			*	*		*	*	*	*					*	*			*	
15. DENR - Environmental Management Bureau		*					*	*	*										*	
16. DENR - Forest Management Bureau	*			*	*		*		*		*				*					
17. DENR - Human Resources Development Service					*															
18. DENR - Laguna Lake Development Authority		*					*				*				*				*	

National Government Agency	Aichi Biodiversity Target																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19. DENR - Lands Management Bureau					*	*					*								*	
20. DENR - Mines & Geosciences Bureau					*		*				*								*	
21. DENR - National Mapping & Resource Information Authority				*			*			*	*				*				*	
22. DENR - National Water Resources Board		*			*	*	*			*										
23. DENR Regional Offices	*			*	*		*		*		*			*	*				*	
24. DENR - River Basin Coordinating Office																			*	
25. Department of Finance											*				*					
26. Department of Foreign Affairs								*											*	
27. Department of Health	*									*									*	
28. DOH - National Nutrition Council	*			*															*	
29. DOH - Philippine Council for Health Research and Development																			*	
30. Department of the Interior and Local Government	*	*		*	*	*	*	*		*	*			*	*				*	
31. Department of Justice					*															
32. DOJ - National Bureau of Investigation					*															
33. Department of Labor and Employment				*																
34. Department of Public Works & Highways						*		*		*	*									
35. Department of Science and Technology	*	*		*				*	*										*	
36. DOST - Food & Nutrition Research Institute																			*	
37. DOST - National Research Council of the Philippines																			*	
38. DOST - Philippine Council for Agriculture & Aquatic Resources Research Development	*					*		*	*	*		*			*				*	
39. DOST - Science Education Institute																			*	
40. Department of Social Work and Development			*	*							*									
41. Department of Tourism							*		*		*			*						

National Government Agency	Aichi Biodiversity Target																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
42. Department of Trade & Industry				*		*								*						
43. DTI - Intellectual Property Office				*																
44. Department of Transportation and Communications								*												
44. Housing & Land Use Regulatory Board		*		*						*										
45. Metropolitan Manila Development Authority				*											*					
46. Metropolitan Waterworks & Sewerage System		*																		
47. National Anti-Poverty Commission										*										
48. National Commission on Culture and Arts																		*		
49. National Commission on Indigenous Peoples		*		*	*						*				*	*		*	*	
50. National Disaster Risk Reduction Management Council										*										
51. National Economic & Development Authority		*	*				*			*	*									
52. National Historical Commission																			*	
53. National Irrigation Administration		*																		
54. National Museum	*				*													*	*	
55. NEDA - Philippine Institute for Development Studies																			*	
56. Office of the Solicitor General					*															
57. Palawan Council for Sustainable Development	*	*		*	*						*			*		*		*	*	
58. Philippine Coast Guard						*		*	*											
59. Philippine Council for Sustainable Development Sub-Committee on Biodiversity							*													
60. Philippine Information Agency	*																			
61. Philippine National Police					*			*												

National Government Agency	Aichi Biodiversity Target																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
62. Philippine Ports Authority								*	*											
63. Philippine Reclamation Authority					*															

Other Stakeholders	Aichi Target																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Congress										*										
Academe (SUC)	*	*		*	*	*	*	*	*	*	*	*	*		*				*	
CSO/CSO networks (includes Leagues of Provinces, Cities & Municipalities, professional organizations)	*	*		*	*	*	*	*	*	*	*	*	*	*	*			*	*	
Private sector (includes Chambers of Commerce, Mines, concerned landowner)	*	*		*	*		*	*			*				*					
LGUs (includes League of Organic Agriculture Municipalities, barangay health workers, barangay nutrition scholars/local nutrition officers)	*	*	*	*	*	*	*	*	*	*	*	*		*	*				*	
Special Management Bodies (includes Local Water Management Bodies, PAMB, RDC)		*		*			*													
Media	*																			
Religious sector	*																			

Annex 2. Questionnaire to assess relevance of personnel expenditures to biodiversity

Note: This questionnaire is developed to assess biodiversity expenditures of government agencies. Personnel expense comprises one of three categories of government expense including MOOE and capital outlay. Because not all personnel positions and not all personnel functions are related to biodiversity, BIOFIN developed this simple questionnaire to provide a better approximation of personnel expenditures related to biodiversity. This survey will not have any bearing on your current work programs and will not be used for anything else beyond the purpose of this survey.

1. Please indicate your current position title : _____
2. What is your status
    a. Permanent _____
    b. Contractual _____
3. Please describe what you do (based on your TOR):
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____

4. What percentage of your time is spent on biodiversity-related functions (encircle one response only).

    If you are not familiar with bio-diversity related functions please see *Box 1*.

    a. 0 %, nothing of relevance to biodiversity
    b. 1 to 20%, rarely
    c. Between 21 and 50%, rarely to sometimes
    d. Between 51 and 75%, sometimes to frequently
    e. Between 76 and 90%, almost all the time or frequently
    f. Between 91 and 100%, all the time

    If your response to this question is letter (a), you do not have to answer question number 5.

5. Please identify which particular area of biodiversity work you are mainly involved in and indicate the % of time spent. If you are involved in one area only, then the entry should be 100%. If you are involved in 3 functional areas of biodiversity, indicate the percentages spent – with the total always being 100%.

    a. Protection, mainly site-based work such as park ranger, species/ ecosystem monitoring :_____
    b. Restoration, mainly site based work such as nursery management, wildling collection: _____
    c. Communications and Information Campaign/IEC/Public Awareness: _____
    d. Sustainable use, e.g. national park administration, ecotourism sites and Biodiversity-friendly livelihoods: _____

e. Policy support to include planning, legislative liaison, and monitoring and evaluation for protected area management and critical habitats; access and benefit sharing; and support / participation to international biodiversity conventions: ____
f. Administration and financial support such as general office work including preparation of correspondence, organization of meetings, budgeting/cash disbursement/ and other financial management functions: ____
g. Research: _____
h. Others (Please specify): _____

6. Remarks:

_____
_____
_____

Box 1. Biodiversity and relevance of functions biodiversity?

What is biodiversity ?

Biodiversity, short for biological diversity, is the term used to describe the variety of life found on Earth and all of the natural processes. This includes ecosystem, genetic and cultural diversity, and the connections between these and all species.

Source : http://www.ecokids.ca/PUB/eco_info/topics/biodiversity/index.cfm

Are your functions relevant to biodiversity?

- *Does your current position / function contribute directly to conservation, protection, restoration, management and /or sustainable use of biodiversity and ecosystems*?
  - *Protected area management (coastal / aquatic / terrestrial) including resource assessment and monitoring, planning, habitat restoration,*
  - *Endangered species inventory, monitoring, enforcement, breeding, and trade, etc*
  - *Forest management including conduct of surveys and species inventory, reforestation, monitoring, etc.*
  - *Environmental monitoring of air/water quality to ensure species health*
  - *Utilization of biodiversity resources such as parks management, ecotourism, use of medicinal plants and animals*
  - *Research on ecosystems, species, and genetic level research*
  - *Technology development and extension work related to ecosystems and natural resources*
  - *Representation to international /regional conventions, meetings, dialogues, etc, on biodiversity*
  - *Policy analysis, development and advocacy pertaining to the above items*
  - *Socio-economics research pertaining to utilization of biodiversity, economic valuation, and financing*
- *Does your current position/function contribute indirectly to biodiversity?*
  - *Information and education campaigns related to biodiversity*
  - *Maintenance of database, mapping, and other knowledge systems related to biodiversity*
  - *Maintenance/ operations of park facilities such as landscaping, merchandising*
  - *Secretariat support*
- *Does your current position/function contribute minimally to biodiversity?*
  - *Human resource mgmt., budgeting, fiscal examination and control, financial and mgmt. analysis, cashiering*
  - *Messengerial, clerical, secretarial, supplies management*
  - *Computer operations*
  - *facility maintenance such as carpentry, land works, janitorial services, transport dispatching and maintenance*

Annex 3. Full listing of biodiversity relevance as applied to program, activities and projects of the DENR Biodiversity Management Bureau

Main expenditure based on PAPs	Basis of Relevance Estimation
General Administration and Support Services	
Personnel services	based on survey results
MOOE	50% was assigned as biodiversity relevant, mainly mandatories such as utilities,
Capital outlay	20% was assigned as biodiversity relevant, mainly buildings and other construction works not directly impacting on biodiversity
Support to Operations	
II.a Formulation and Monitoring of ENR Sector Policies, Plans, Programs and Projects	
PS	based on survey results
MOOE	100%, policies and plans on Protected areas, wetlands, caves; technical assistance for programs such as NIPAS, restoration of denuded NGP areas; buffer zone management; ecotourism zone and nature recreation; TA for projects such as STREEM, BPP etc.
capital outlay	none
II.b Data Management Including Systems Development and Maintenance	
PS	based on survey results
MOOE	90%, maintenance of CHM and PAWB website; server; database updating; installation and maintenance of IP telephony and LAN: repairs and maintenance of hardware and software ; training; GIS and mapping ; stat reports on wildlife; CITES permits; stat yearbook
Capital outlay	90%, for information infrastructure
II.c Production and dissemination of technical and popular materials in the conservation and development of natural resources including environmental education	
PS	none
MOOE	100%, all IEC materials relevant to biodiversity
CO	none
II.d Legal Services including operations against unlawful titling of public lands	
PS	based on survey results
MOOE	100%, support to policy implementation
CO	none
OPERATIONS	

Main expenditure based on PAPs	Basis of Relevance Estimation
III.c.1 Protected Areas and Wildlife Resources Development	
PS	based on survey results
MOOE	100%, Mobilization of NIPAS review committee, energy projects in NIPAS; PAMB Summit; ASEAN Heritage Parks; working groups and other inter agency meetings
CO	none
III.c.2 Operation and manintenance of the Ninoy Aqiono Park and Wildlife Nature Center in Quezon City	
PS	based on survey results
MOOE	75%, security, park maintenance, nursery supplies, maintenance of vehicles, fuels, lube, animal feed for wildlife rescue center
CO	75%, main entrance / exit gates; signages; landscaping of walkways; renovation of admin bldg (Museum(; animal cages / displaly enclosures; rehab of park toilets
III.c.3 Development and rehabilitation of Hinulugan Taktak in Antipolo Rizal	based on survey results
PS	
MOOE	50%, mandatory expenses
CO	50%, infra and repair of cottage, shop, guard house, guest house, riprapping of streambank, rehab of stairs and facilities; fencing; rehab of swimming pool and pipeline; proposed streambank plantation both sides of H. Taktak
III.c.4 Development and rehabilitation of Mt. Apo National Park*	
PS	None
MOOE	100%, repair of monitoring station at Mandarangan; signages; working with LGUs; monitoring, [100%]
CO	None
III.c.5 Philippine Eagle Conservation Project	
PS	None
MOOE	100%, eagle watch teams; habitat survey ; livelihood; meetings ; IEC; enforcement
CO	None
III.c.6 Pawikan Conservation Project*	
PS	Based on survey results
MOOE	100%, tagging, release, rescue of pawikan; monitoring and protection of nestings sites; hatchery establishment; trainings and networking,
CO	None
III.c.7 Tamaraw Conservation Project	

Main expenditure based on PAPs	Basis of Relevance Estimation
PS	None
MOOE	100%, meetings and workshops in support of mgmt plan; survey; monitoring of tamaraw population;setting new direction for gene pool facility; M and E
CO	None
III.c.8 Operation and maintenance of the Crocodile Farm Institute in Irawan, Palawan	
PS	Based on survey results
MOOE	100%, breeding; maintenance, animal health;farming area maintenance; treatment of sick animals; in situ activities include conduct of crocodile assessment in agusan, palawan, siargao; development of site mgmt plan
CO	None
Tubbataha Reef, Apo Reef, Mt Banahaw, Mt Kitanglad, Northern Negros, Central Cebu	
MOOE entries	100%
	No personnel or capital outlay
III.c. 15 (9) Biodiversity Conservation Program	
PS	Based on survey results
MOOE	100%, cave mgmt including cave committee operation; regional review of cave mgmt reports; assistance to LGUs on cave planning; wetland mgmt; enforcement of wildlife laws; maintenance of wildlife rescue center; implementation of biodiversity monitoring in selected PASU/Regional offices; prep of invasive alien species plan and monitoring of wildlife programs and project; facilitate, coordinate implement international agreements and FAPs
CO	50%, based on relevance of infrastructure spending
III.c.10 Tarsier Conservation Project	
PS	None
MOOE	100%
CO	none
III. Operations - Coastal and Marine Management (CMM)	
PS	Based on survey results
MOOE	75%, used for capacity building, profiling of reef resources within NIPAS sites
CO	50%, based on equipment purchases used for capacity building of staff

ANNEX 4. List of PBSAP Stakeholders and Comparison of Expenditures towards Achievement of Aichi Biodiversity Targets

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
1. Armed Forces of the Philippines					**1.17**	**0.07**															1.24	0.98
2. Climate Change Commission	**0.17**	**1.18**	**0.01**	**3.34**						**0.94**											5.64	4.46
3. Commission on Higher Education	**0.17**			**3.34**						**0.94**									**1.94**		6.39	5.05
4. Department of Agrarian Reform				**3.34**																	3.34	2.64
5. Department of Agriculture	**0.17**	**1.18**	**0.01**	**3.34**	**1.17**		**0.09**	**0.11**	**0.79**				**3.17**			**0.01**		**0.89**	**1.94**		12.87	10.17
6. DA - Bureau of Fisheries & Aquatic Resources	**0.17**	**1.18**	**0.01**	**3.34**	**1.17**	**0.07**		**0.11**		**0.94**	**42.79**	**5.36**		**0.62**	**37.34**				**1.94**		95.04	75.08
7. DA - Bureau of Plant Industry	**0.17**	**1.18**	**0.01**	**3.34**			**0.09**		**0.79**				**3.17**					**0.89**	**1.94**		11.58	9.15
8. DA - Bureau of Soils and Water Management				3.34										**0.62**							3.96	3.13

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
9. DA - National Fisheries Research & Development Institute	**0.17**					**0.07**				**0.94**		**5.36**							**1.94**		8.48	6.7
10. Department of Budget & Management		**1.18**								**0.94**											2.12	1.67
11. Department of Education	**0.17**			**3.34**						**0.94**								**0.89**			5.34	4.22
12. Department of Environment & Natural Resources		**1.18**		**3.34**	**1.17**																5.69	4.5
13. DENR - Biodiversity Management Bureau	**0.17**	**1.18**	**0.01**	**3.34**	**1.17**	**0.07**	**0.09**	**0.11**	**0.79**	**0.94**	**42.79**	**5.36**	**3.17**	**0.62**	**37.34**	**0.01**	**0**	**0.89**	**1.94**		99.99	
14. DENR-Ecosystems Research & Development Bureau	**0.17**			**3.34**	**1.17**		**0.09**	**0.11**	**0.79**	**0.94**					**37.34**	**0.01**			**1.94**		45.9	36.26
15. DENR - Environmental Management Bureau		**1.18**	**0.01**	**3.34**			**0.09**	**0.11**	**0.79**	**0.94**				**0.62**					**1.94**		9.02	7.13
16. DENR - Forest Management Bureau	**0.17**			**3.34**	**1.17**		**0.09**		**0.79**						**37.34**						42.9	33.89

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																			Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
17. DENR - Laguna Lake Development Authority		**1.18**					**0.09**								**37.34**				**1.94**		40.55	32.03
18. DENR - Lands Management Bureau				**3.34**	**1.17**	**0.07**													**1.94**		6.52	5.15
19. DENR - Mines & Geosciences Bureau				**3.34**	**1.17**		**0.09**												**1.94**		6.54	5.17
20. DENR - National Mapping & Resource Information Authority				**3.34**			**0.09**			**0.94**									**1.94**		6.31	4.98
22. DENR - National Water Resources Board		**1.18**		**3.34**	**1.17**	**0.07**	**0.09**			**0.94**											6.79	5.36
23. DENR Regional Offices	**0.17**			**3.34**	**1.17**		**0.09**		**0.79**					**0.62**	**37.34**				**1.94**		45.46	35.91
24. Department of Finance		**1.18**	**0.01**	**3.34**																	4.53	3.58
25. Department of Foreign Affairs								**0.11**											**1.94**		2.05	1.62
26. Department of Health	**0.17**									**0.94**									**1.94**		3.05	2.41
27. DOH - National Nutrition Council	**0.17**			**3.34**															**1.94**		5.45	4.31

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
28. DOH - Philippine Council for Health Research and Development																			**1.94**		1.94	1.53
29. Department of the Interior and Local Government	**0.17**	**1.18**		**3.34**	**1.17**	**0.07**	**0.09**	**0.11**		**0.94**				**0.62**					**1.94**		9.63	7.61
30. Department of Justice					**1.17**																1.17	0.92
31. DOJ - National Bureau of Investigation					**1.17**																1.17	0.92
32. Department of Labor and Employment				**3.34**																	3.34	2.64
33. Department of Public Works & Highways						**0.07**		**0.11**		**0.94**											1.12	0.88
34. Department of Science and Technology	**0.17**	**1.18**	**0.01**	**3.34**			**0.09**	**0.11**	**0.79**	**0.94**			**3.17**						**1.94**		11.74	9.27
35. DOST - Food & Nutrition Research Institute																			**1.94**		1.94	1.53
36. DOST - National Research Council of the Philippines																			**1.94**		1.94	1.53

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
37. DOST - Philippine Council for Agriculture & Aquatic Resources Research Development	**0.17**					**0.07**		**0.11**	**0.79**	**0.94**		**5.36**			**37.34**				**1.94**		46.72	36.91
38. DOST - Science Education Institute																			**1.94**		1.94	1.53
39. Department of Social Work and Development			**0.01**	**3.34**																	3.35	2.65
40. Department of Tourism							**0.09**		**0.79**		**42.79**			**0.62**							44.29	34.99
41. Department of Trade & Industry				**3.34**		**0.07**								**0.62**							4.03	3.18
42. Department of Transportation and Communications								**0.11**													0.11	0.09
43. Housing & Land Use Regulatory Board		**1.18**		**3.34**						**0.94**											5.46	4.31

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
44. Metropolitan Manila Development Authority				**3.34**																	3.34	2.64
46. National Anti-Poverty Commission										**0.94**											0.94	0.74
47. National Commission on Culture and Arts																		**0.89**			0.89	0.7
48. National Commission on Indigenous Peoples		**1.18**		**3.34**	**1.17**						**42.79**					**0.01**		**0.89**	**1.94**		51.32	40.54
49. National Disaster Risk Reduction Management Council	**0.17**									**0.94**											1.11	0.88
50. National Economic & Development Authority		**1.18**	**0.01**				**0.09**			**0.94**											2.22	1.75
52. National Historical Commission																			**1.94**		1.94	1.53
54. National Museum	**0.17**				**1.17**													**0.89**	**1.94**		4.17	3.29
55. NEDA - Philippine Institute for Development Studies																			**1.94**		1.94	1.53

National Government Agency	Aichi Biodiversity Targets / Cost Indices based on PBSAP																				Summation of all expenditure indices	Standardized % based on PBSAP weights
	1. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	0.17	1.18	0.01	3.34	1.17	0.07	0.09	0.11	0.79	0.94	42.79	5.36	3.17	0.62	37.34	0.01	0	0.89	1.94	0	99.99	
56. Office of the Solicitor General					**1.17**																1.17	0.92
57. Palawan Council for Sustainable Development	**0.17**	**1.18**		**3.34**	**1.17**						**42.79**			**0.62**		**0.01**		**0.89**	**1.94**		52.11	41.17
58. Philippine Coast Guard						**0.07**		**0.11**	**0.79**												0.97	0.77
60. Philippine Information Agency	**0.17**																				0.17	0.13
61. Philippine National Police					**1.17**			**0.11**													1.28	1.01

Annex 5. BRF scores of the other national agencies and application to relevant cost component

National agencies	% contribution to 20 Aichi Targets	Standardized BRF	Application of BRF
Economic services cluster			
Department of Agrarian Reform (DAR)	3.34	2.64	Applied to programs pertaining to Land Use Management and Land Development and Agrarian Reform Information and Education
Department of Agriculture (DA)	12.87	10.17	Applied to coordination of agricultural research; programs on promotion and development of organic fertilizer; programs on agricultural intensification and diversification; and promotion and development of organic agriculture
DA-Bureau of Plant Industry (BPI)	11.58	9.15	Applied to programs of the National Seed Industry Council; agricultural crops research;
DA-Bureau of Soils and Water Management (BSWM)	3.96	3.13	Applied to formulation of programs, standards, and guidelines for soil and water resources conservation, management, and development; water management and soil conservation programs;
DA-Bureau of Fisheries and Aquatic Resources (BFAR)	95.04	75.08	Applied to general administration and support services, support to operations and operations, in particular, programs on development and management of aquatic resources; conservation, regulation, and protection; and support to field units through LGU technical assistance; also including Integrated Coastal Resource Management Project
Department of Public Works and Highways (DPWH)	1.12	0.88	Applied to policy Formulation, Program Planning and Standards Development program which includes environmental and safeguards division
Department of Tourism (DOT)	44.29	34.99	Applied to programs on maintenance and preservation of national parks such as Rizal Park and satellite parks; tourism development planning; and tourism product research and development
Department of Trade and Industry (DTI)	4.03	3.18	Promotion and development of product standards
Social services cluster			
Commission on Higher Education (CHED)	6.39	5.05	Policy formulation, program plannning and standard development for higher education; Implementation of policies and programs on higher education services (M&E or higher institutions' performance; incentives; scholarships, assistance and study grants to students and faculty for Masters and PhD);

National agencies	% contribution to 20 Aichi Targets	Standardized BRF	Application of BRF
			National Agriculture and Fisheries Education System
Department of Education (DEPED)	5.34	4.22	Programs on educational projects development and implementation and national science teaching instrumentation center
Department of Health (DOH)	3.05	2.41	Formulation and Development of National Health Policies and Plans including Essential National Health Research; public information services; policy planning and formulation
Department of Science and Technology (DOST)	11.74	9.27	Development, coordination, monitoring and evaluation of national science and technological policies and program; operation and maintenance of the National Committee on Biosafety
Philippine Council for Agriculture, Forestry & Natural Resources Research (PCAFNR)	11.74	9.27	Personnel survey applied to personnel costs; support to operations MOOE including Formulation of policies, plans and programs for the management and coordination of the national research system for agriculture, forestry and natural resource and collaborative research with local and international agencies
Philippine Council for Aquatic and Marine Resources Research and Development (PCAMRRD)	46.72	36.91	Development, integration and coordination of the national research system for aquatic and marine resources; Assistance to aquatic and marine resources development and support to regional research centers/consortia management; and manpower development
DOST Food and Nutrition Research Institute (FNRI)	1.94	1.53	Applied to basic and applied research on food and nutrition
DOST Science Education Institute (SEI)	1.94	1.53	Applied to operations budget including S and T manpower development; S and T in science education; upgrading of science teaching capabilities; science scholarships; science culture development and promotion
DOST-National Research Council (NRCP)	1.94	1.53	Applied to operations budget specifically promotion/Management of Research and Development Resources to Enrich the Educative Process of Knowledge Workers; and, Strengthening Dynamic Relationship with National and International Scientific and Professional Organizations
Housing and Land Use Regulatory Board (HLURB)	5.46	4.31	Applied to formulation, revision, adoption and dissemination of standards and guidelines for physical plans, subdivisions and urban land reform and provision of town

National agencies	% contribution to 20 Aichi Targets	Standardized BRF	Application of BRF
			planning and zoning assistance in the preparation of human settlements plans; Concept planning for urban land reform areas for priority development (APD) and subdivisions, including its review and evaluation as well as the operation of a data banking system and the provision for cartographic assistance
National Anti – Poverty Commission (NAPC)	0.94	0.74	Plan/Policy Formulation, Advocacy, Coordination and Monitoring of all Social Reform and Poverty Alleviation Programs
Department of Social Welfare and Development (DSWD)	3.35	2.65	Conditional cash transfer programs
National Commission on Indigenous Peoples (NCIP)	51.32	40.54	Policy Formulation, Planning and Coordination of Socio-Economic and Cultural Development Projects
Defense Services Cluster			
Armed Forces of the Philippines (AFP)	1.24	0.98	Disaster response budgets of the army, navy and air force
Philippine National Police (PNP)	1.28	1.01	Conduct of operations and other related confidential activities against dissidents, subversives, lawless elements and organized crime syndicate and campaign against kidnapping, trafficking of women and minors, smuggling, carnapping, gunrunning, ***illegal fishing*** and trafficking of illegal drug; enforcement of all environmental laws
Department of National Defense / National Disaster Risk Reduction Management Council	1.11	0.88	Applied to budget of personnel budget and MOOE Budget of the Office of Civil Defense
Department of Transportation and Communication (DOTC)-Coast Guard	0.97	0.77	Protection of Philippine Coast, i.e, Promotion of safety of life and property at sea, including safeguarding the marine environment and resources and enforcement of all applicable maritimeaws
General Services Cluster			
Metro Manila Development Authority (MMDA)	3.34	2.64	Applied to a percentage of MOOE spent on solid waste management
Climate Change Commission	5.64	4.46	Policy Formulation Research and Development, Coordination and Monitoring of Climate Change Programs and Activities of the Different National/Local Government Agencies and other Offices
Department of Foreign Affairs (DFA)	2.05	1.62	Applied to budgets on support international organizations and memberships; research and technical studies and UNESCO programs

National agencies	% contribution to 20 Aichi Targets	Standardized BRF	Application of BRF
Department of Finance (DOF)	4.53	3.58	Applied to national finance services, municipal development fund, and support to local governments finance
Department of Justice (DOJ)	1.17	0.92	Investigation services, prosecution services and alternative dispute resolution
National Museum	4.17	3.29	Research, Collections, Exhibitions and Maintenance of Specimens and Regular Exhibitions; Restoration, Preservation, Protection and Development of Cultural Property
National Commission on Culture and the Arts (NCCA)	0.89	0.70	Policy Formulation and Coordination with Government and Non-Government Activities on Culture and Arts
National Historical Commission (NHC)	1.94	1.53	Development and Maintenance of NHI information systems to include biodiversity-relevant information
Philippine Information Agency (PIA)	0.17	0.13	Applied to operations
National Economic Development Authority (NEDA)	2.22	1.75	Coordination of the Formulation, Updating and Assessment of National Development Policies and Plans; statistical services
NEDA Philippine Institute for Development Studies	1.94	1.53	Applied to operations
Department of Interior and Local Government (DILG)	9.63	7.61	Applied to development of policies and programs for local government supervision and development; adaptation to climate change; Manila Bay clean-up; and support to operations on Millenium Development Goals

Annex 6. Official Development Assistance to DENR, average annual estimates from 2008-2014

Thematic Sectors of PBSAP and Project Titles	Value of ODA in PHP[14]
Coastal	
Strengthening Marine Protected Areas to Conserve the Marine Key Biodiversity Areas in the Philippines	405,000,000
Camiguin Coastal Resource Management Project (CCRMP) - Phase II	32,978,700
Danajon Bank Marine Park Project	22,500,000
Camiguin Coastal Resource Management Project (CCRMP)	61,435,875
Protection and rehabilitation of coastal ecosystems for improved adaptation to Climate Change as a contribution to the Coral Triangle Initiative (ACCCoast)	284,925,600
Forest	
Biodiversity and Watersheds Improved for Stronger Economy and Resiliency Project (B-WISER)	1,008,000,000
Climate-Relevant Modernization of Forest Policy and REDD Piloting in the Phils.	210,039,750
Forest and Climate Protection in Panay	121,500,000
Moving Forward in the Implementation of the Non-Legally Binding Instrument (NLBI) on All Types of Forest in Liberia, Nicaragua and Philippines: A Contribution to Reducing Deforestation and Forest Degradation	84,307,725
Capacity Development Technical Assistance (CDTA) for Decentralized Framework for Sustainable Natural Resources and Rural Infrastructure Development – PPTA	78,000,000
UN-REDD PLUS - Supporting Initial Readiness Process	30,000,000
Integrated Sustainable Wood Pellet Manufacturing and Industrial Tree Plantation Establishment Project in the Philippines (ISWPITPEP)	204,000,000
Enhancing Natural Resources Management through Enterprise Development	17,009,945
Demonstration and Application of Production and Utilization Technologies for Rattan Sustainable Development in the ASEAN Member-Countries	14,172,075
Laguna de Bay Community Carbon Finance Project	13,648,668
Research and Development Project on "Improving Financial Returns to Smallholder Tree Farmers in the Philippines (ACIAR/ASEM/ 2003/052)	1,307,925
Advancing the Apprilication of ANR for Effective Low-Cost Forest Restoration	5,692,500
Project for the Enhancement of CBFM Program in the Philippines	78,750,000
Adoption and Implementation of the Forestry Information System (FIS) in the Philippines	14,336,670
Improve the Health and Enviroment of Artisanal Gold Mining Communities in the Philippnes by Reducing Mercury Emissions *	24,750,000

[14] Value of ODA converted to PHP based on PHP 45: 1 USD.

Thematic Sectors of PBSAP and Project Titles	Value of ODA in PHP[14]
Environment and Rural Development (EnRD) Program – Phase I	148,147,740
Protected Area	
Protected Areas Management Enhancement in the Philippines (PAME)	589,500,000
New Conservation Areas in the Philippines (formerly Expanding and Diversifying the National System of Terrestrial Protected Areas in the Philippines)	157,500,000
Mainstreaming Ecotourism in the Community-based Natural Resources Management (National Ecotourism Programme – Phase II Project)	6,901,380
Inland	
Rehabilitation and Sustainable Use of Peatland Forests in South-East Asia	11,790,000
Agusan River Basin Integrated Water Resources Management (FS) - PPTA	26,550,000
Agro Biodiversity	
Conservation and Adaptive Management of Globally Important Agricultural Heritage System - Ifugao Rice Terraces	45,000,000
Partnership for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes	246,857,144
Urban	
Non-Combustion Technology for the Destruction of Persistent Organic Pollutants (POPs)	184,882,504
Extension	29,250,000
Enabling Activity to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants in the Philippines	15,525,000
Implementation of the POPs Monitoring Plan in the Asian Region (REGIONAL) *	236,340,000
Integrated Persistent Organic Pollutants (POPs) Management Program (Phase I) – PPG	113,400,000
IAS	
Removing Barriers to Invasive Species Management in Production and Protection Forest in Southeast Asia	25,863,750
Multiple Thematic Sectors	
Fifth Operation Phase of the GEF Small Grants Program in the Philippines	206,249,850
Samar Island Biodiversity Project (SIBP) Phase II	71,100,000
Integrated Persistent Organic Pollutants (IPOPs) Management Program	388,800,000
Capacity Development Project on Water Quality Management	180,000,000
Strengthening Coordination for Effective Environmental Management (StrEEM)	21,375,000
Eco-Governance 1 & 2	342,000,000
Integrated Natural Resources and Environmental Management Sector Development Program (FS) - PPTA	34,200,000

Thematic Sectors of PBSAP and Project Titles	Value of ODA in PHP[14]
Manila Bay Integrated Water Quality Management Project - PPG	15,000,000
National Biodiversity Planning to Support the Implementation of the 2011-2020 CBD Strategic Plan on Biodiversity in the Philippines	30,150,000
Phil. Climate Change Adaptation Project	223,650,000
Adaptation to Climate Change and Conservation of the Biodiversity in the Philippines	217,749,960
Strengthening the Philippine Institutional Capacity to Adapt to Climate Change	360,000,000
Phil. Climate Change Adaptation Phase I Project - PPG	6,367,500
Phil. Poverty Environment Initiative (PPEI) - Phase 2	82,285,712
GEF National Portfolio Formulation Exercise (NPFE) Project in the Philippines	1,350,000
Environment and Natural Resources Capacity and Operations Enhancement Programme (ENR-CORE)	24,007,320

Annex 7. Local governments and expenditures for protected areas as a percentage of internal revenue allotments

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
Ilocos Norte				
Adams	Kalbaryo-Patapat NP	37,056,656	128,130	2%
Pagudpud	Kalbaryo-Patapat NP	61,962,754	128,130	1%
Batanes				
Basco	Batanes Islands PLS[2010]	33,619,219	48,796	1%
Itbayat	Batanes Islands PLS[2010]	31,254,385	48,796	1%
Ivana	Batanes Islands PLS[2010]	22,993,110	48,796	1%
Mahatao	Batanes Islands PLS[2010]	23,026,888	48,796	1%
Sabtang	Batanes Islands PLS[2010]	25,733,205	48,796	1%
Uyugan	Batanes Islands PLS[2010]	23,021,029	48,796	1%
Nueva Vizcaya				
Kasibu	Capisaan Caves	85,559,954	794,663	5%
Isabela				
San Mariano	Philippine Crocodiles Sanctuaries in San Mariano; Local sanctuary for Isabela Oriole in Baggao	214,244,927	901,260	2%
Cagayan				
Baggao	Philippine Crocodiles Sanctuaries in San Mariano; Local sanctuary for Isabela Oriole in Baggao	190,171,852	391,120	1%
Gataran	Bawa and Wangag Watershed Forest Reserves	145,702,498	296,463	1%
Lal-lo	Bawa and Wangag Watershed Forest Reserves	131,172,767	296,463	1%
Gonzaga	Bawa and Wangag Watershed Forest Reserves	112,878,095	296,463	1%
Sta Ana	Bawa and Wangag Watershed Forest Reserves	94,416,899	296,463	2%
Nueva Ecija				
Gabaldon	Mt. Mingan	77,363,898	1,649,500	11%
Bongabon	Aurora Memorial NP	110,429,685	1,017,067	5%
Tarlac				
San Jose	Zambales Mountains	81,868,166	120,000	1%

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
Mayantoc	Zambales Mountains	82,486,556	500,000	3%
Aurora				
Dingalan	Mt. Mingan	74,052,558	1,649,500	11%
San Luis	Mt. Mingan; Aurora Memorial NP	106,697,063	2,666,567	12%
Casiguran	Amro River PL	113,956,537	1,525,600	7%
Dilasag	Amro River PL	66,045,147	1,525,600	
Maria (Aurora)	Aurora Memorial NP	101,618,409	1,017,067	5%
Dinalungan	Simbahan-Talagas and Talaytay PL	62,113,385	3,064,235	25%
Zambales				
Palauig		84,853,503		
Masinloc		98,402,562		
Camarines Sur				
Cabusao	Cabusao Wetlands	44,118,398	0	0%
Caramoan	Caramoan NP	93,845,342	1,175,200	6%
Calabanga	Mt. Isarog NP	118,689,760	889,250	4%
Pili	Mt. Isarog NP	120,097,075	889,250	4%
Naga City	Mt. Isarog NP	365,294,554	1,090,567	1%
Catanduanes				
Baras	Catanduanes WFR	43,546,935	236,125	3%
Bato	Catanduanes WFR	46,078,276	236,125	3%
Caramoan	Catanduanes WFR	75,292,029	236,125	2%
Gigmoto	Catanduanes WFR	46,093,003	236,125	3%
San Andres	Catanduanes WFR	74,776,589	236,125	2%
San Miguel	Catanduanes WFR	47,847,749	236,125	2%
Viga	Catanduanes WFR	57,628,318	236,125	2%
Virac	Catanduanes WFR	107,447,187	236,125	1%
Cavite				
Ternate	Mts. Palay-Palay/Mataas na Gulod Protected Landscape	46,047,750	193,790	2%
Maragondon	Mts. Palay-Palay/Mataas na Gulod Protected Landscape	69,403,820	193,790	1%
Romblon				
Calatrava	Calatrava, San Andres, San Agustin WFR	38,757,867	667,333	9%
San Andres	Calatrava, San Andres, San Agustin WFR	46,901,623	667,333	7%
San Agustin	Calatrava, San Andres, San Agustin WFR	56,910,276	667,333	6%
Occidental Mindoro				
Sablayan	Apo Reef Natural Park (ARNP)	308,922,965	1,083,100.00	2%

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
Calintaan	Apo Reef Natural Park (ARNP)	86,447,913	1,083,100.00	6%
San Jose	Apo Reef Natural Park (ARNP)	200,587,584	1,083,100.00	3%
Paluan	Apo Reef Natural Park (ARNP)	90,004,239	1,083,100.00	6%
	Palawan			
Busuanga	Busuanga Forest	79,862,386	1,391,400.00	9%
Roxas	Marine Corridor in Green Island Bay	196,403,748	5,808,770.00	15%
Bataraza	Ursula Island Game Refuge and Bird Sanctuary and Coral Bay	155,562,400	670,500.00	2%
Taytay	Lake Manguao	213,765,718	1,861,500.00	4%
Puerto Princesa City	Cleopatra's Needle Forest Reserve	1,544,434,538	1,469,000.00	0.48%
	Cebu			
Bantayan	Bantayan Island MPAs (Tanon Strait KBA)	106,842,257	464,267	2%
Madridejos	Bantayan Island MPAs (Tanon Strait KBA)	59,202,716	464,267	4%
Sta. Fe	Bantayan Island MPAs (Tanon Strait KBA)	50,541,164	464,267	5%
Lapu Lapu City	Olango Island Wildlife Sanctuary	530,498,322	0	0%
	Negros Oriental			
Mabinay		129,317,130		
San Jose	Balinsasayaw Twin Lakes NP[2010]	45,719,796	545,990	6%
Sibulan	Balinsasayaw Twin Lakes NP[2010]	90,422,304	545,990	3%
Valencia	Balinsasayaw Twin Lakes NP[2010]	67,637,092	545,990	4%
	Siquijor			
San Juan	Siquijor MPAs	38,996,287	390,575.00	5.01%
Lazi	Siquijor MPAs	48,504,383	390,575.00	4.03%
Siquijor	Siquijor MPAs	56,032,439	390,575.00	3.49%
Enrique Villanueva	Siquijor MPAs	29,547,624	390,575.00	6.61%
	Negros Occidental			
Hinobaan	Hinoba-an Key Biodiversity Areas	116,931,989	4,250,000.00	18%
City of Kabankalan,	Ilog-Hilabangan Watershed Forest Reserve	656,252,016	660,134.00	1%

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
Negros Occidental				
City of Himamaylan, Negros Occidental	Ilog-Hilabangan Watershed Forest Reserve	425,432,500	3013550	4%
Kabankalan City	Conservation and Protection Management of Coastal Wetlands in Negros Occidental for RAMSAR Classification	656,252,016		0%
Pulupandan	Negros Occidental Coastal Wetlands; Irrawaddy habitats	49,657,878	1,309,832.51	13%
Bago City	Negros Occidental Coastal Wetlands; Irrawaddy habitats	503,367,160	1,309,832.51	1%
Valladolid	Negros Occidental Coastal Wetlands	63,594,853	182,932.50	1%
San Enrique	Negros Occidental Coastal Wetlands	47,928,279	182,932.50	2%
Pontevedra	Negros Occidental Coastal Wetlands	81,537,410	182,932.50	1%
Hinigaran	Negros Occidental Coastal Wetlands	121,220,258	182,932.50	1%
Binalbagan	Negros Occidental Coastal Wetlands	107,397,963	182,932.50	1%
Municipality of Ilog	Negros Occidental Coastal Wetlands	104,756,485	182,932.50	1%
Cauayan	PEMO Southern Cauayan Municipal Forest and Watershed Reserve	171,584,053	2,057,054.00	6%
Sipalay City	PEMO2 Sipalay City Tropical Forest Zone and Wildlife Sanctuary	393,338,756	419,860.00	1%
Guimaras				
Nueva Valencia	Taklong Island NMR	73,915,588	2,057,000	14%
Northern Samar				
Biri	Biri-Larosa Protected Landscape and Seascape[2011]	34,181,100	49,060	1%
Lavezares	Biri-Larosa Protected Landscape and Seascape[2011]	60,502,210	49,060	0%

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
Rosario	Biri-Larosa Protected Landscape and Seascape[2011]	33,766,686	49,060	1%
San Jose	Biri-Larosa Protected Landscape and Seascape[2011]	39,949,398	49,060	1%
	Leyte			
Hindang	Cuatro Islas PLS[2010]	46,258,666	337,485	4%
Inopacan	Cuatro Islas PLS[2010]	50,279,161	337,485	3%
	Southern Leyte			
Padre Burgos	Sogod Bay MPAs	33,607,185	1,794,111.20	27%
Limasawa	Sogod Bay MPAs	26,444,489	1,794,111.20	34%
Pintuyan	Sogod Bay MPAs	33,439,233	1,794,111.20	27%
Liloan	Sogod Bay MPAs	49,053,812	1,794,111.20	18%
San Francisco	Sogod Bay MPAs	39,999,952	1,794,111.20	22%
West Samar				
Paranas	Samar Island NP[2010]	104,586,297	570,600	3%
	Misamis Occidental			
Baliangao	Baliangao Protected Landscape and Seascape	45,141,001		0
Concepcion	Mt Malindang Range	33,756,906	347,475	5%
Aloran	Mt Malindang Range	60,420,306	347,475	3%
Jimenez	Mt Malindang Range	55,346,568	347,475	3%
Sinacaban	Mt Malindang Range	49,663,265	347,475	3%
	Camiguin			
Mambajao	Timpoong & Hibok-Hibok Natural Monument	67,288,203	177,625	1%
Mahinog	Timpoong & Hibok-Hibok Natural Monument	37,777,659	177,625	2%
Sagay	Timpoong & Hibok-Hibok Natural Monument	37,030,708	177,625	2%
Catarman	Timpoong & Hibok-Hibok Natural Monument	42,689,440	177,625	2%
	Agusan del Sur			
Prosperidad	Barangay Mabuhay and Puting Buhangin Protected Area	149,611,972	2,110,680.00	7%
	Davao			
Davao City	Davao MPAs	2,898,489,579	1,861,500.00	0.32%
	Davao Oriental			
Cateel	Aliwagwag Potected Landscape	105,818,564	163,800	1%
	Compostela			
Mabini	Compostela Protected Landscape and Seascape	96,991,613	0	0%

Province / Municipality	Name of Protected Area	IRA as of 2014	LGU Expenditure, Yearly Average	Biodiversity spending as % of 20% DF
So Cotabato	Lake Cebu, Tboli, Surallah (So Cotabato); Bagumbayan (Sultan Kudarat)			
Lake Cebu	Allah Valley Protected Landscape	166,362,260	422,109	1%
Tboli	Allah Valley Protected Landscape	188,296,799	422,109	1%
Surallah	Allah Valley Protected Landscape	152,150,487	422,109	1%
Tupi	Mt. Matutum PL[2011]	107,850,722	532,250	2%
Tampakan	Mt. Matutum PL[2011]	96,193,027	532,250	3%
Polomolok	Mt. Matutum PL[2011]	197,916,602	532,250	1%
Sultan Kudarat				
Bagumbayan	Allah Valley Protected Landscape	151,902,256	422,109	1%
Province of Sarangani / Alabel	Mt. Latian Complex	738,166,218	1,813,648	1%
Malungon	Mt. Matutum PL[2011]	192,089,100	532,250	1%
Glan	Sarangani Bay PS[2011]	189,648,870	359,100	1%
Alabel	Sarangani Bay PS[2011]	146,632,971	359,100	1%
Malapatan	Sarangani Bay PS[2011]	155,569,608	359,100	1%
Gen San City	Sarangani Bay PS[2011]	950,956,874	359,100	0%
Maasim	Sarangani Bay PS[2011]	38,187,957	359,100	5%
Lanao del Norte				
Poona Piagapo	Poona-Munai Watershed	69,563,752	3,166,400	23%
Bukidnon				
Libona	Rafflesia Critical Habitat	97,724,397	73,000	0.37%
Baungon	Rafflesia Critical Habitat	87,347,749	73,000	0.42%

Source: Protected Area Management Enhancement Project, GIZ.

Annex 8. International Commitment Funds

	2008	2009	2010	2011	2012	2013
	1,908,084,000	1,243,392,000	1,595,215,000	3,174,820,000	2,683,248,000	2,636,723,000
DENR	11,988,000	11,336,000	13,350,000	13,279,000	54,950,000	56,093,000
Coordinating Committee for Coastal and Offshore Geoscience Programme in East and Southeast Asia	1,960,000	1,960,000	1,960,000	1,880,000	1,740,000	1,740,000
UNEP						
UNEP Environment Fund	221,000	203,000	735,000	705,000	783,000	783,000
Trust Fund for PEMSEA	1,225,000	1,125,000	1,225,000	1,175,000	1,088,000	1,088,000
CITES	227,000	209,000	303,000	218,000	202,000	215,000
Trust Fund for the Convention on the Conservation of the Migratory Species and Wild Animals	256,000	235,000	443,000	281,000	261,000	180,000
CBD	512,000	470,000	647,000	564,000	590,000	590,000
Basel	239,000	219,000	147,000	191,000	186,000	218,000
Stockholm Convention on POPS					187,000	240,000
International Hydrographic Organization	3,337,000	3,350,000	3,626,000	3,478,000	3,232,000	3,500,000
International Tropical Timber Organization	1,905,000	1,862,000	2,120,000	2,113,000	1,740,000	2,456,000
United Nations Framework Convention on Climate Change (core plus Kyoto Protocol)	1,271,000	947,000	947,000	1,180,000	1,346,000	1,453,000
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, Iran)	155,000	155,000	269,000	206,000	218,000	178,000
Trust Fund for the Convention on IPCC	49,000	49,000	74,000	71,000	66,000	
Trust Fund for the Montreal Protocol	74,000	74,000	241,000	235,000	218,000	218,000
International Network for Bamboo and Rattan	392,000	360,000	392,000	790,000	609,000	783,000
General Trust Fund for the Core Programme Budget for the Biosafety Protocol	165,000	118,000	221,000	192,000	218,000	109,000
ASEAN Center for Biodiversity					40,000,000	40,000,000
ASEAN Transboundary Haze Pollution Trust Fund					2,175,000	2,175,000
Acid Deposition Monitoring in East Asia					91,000	167,000
Non Biodiversity Funding	4,081,000	3,511,000	4,864,000	4,592,000	47,225,000	47,178,000
Biodoversity Funding	7,907,000	7,825,000	8,486,000	8,687,000	7,725,000	8,915,000
TOTAL	**11,988,000**	**11,336,000**	**13,350,000**	**13,279,000**	**54,950,000**	**56,093,000**

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