USAID
FROM THE AMERICAN PEOPLE

PHILIPPINE ENVIRONMENTAL GOVERNANCE 2 PROJECT (ECOGOV 2)

MID-TERM (2007) GUIDED LGU SELF-ASSESSMENT ON THE STATE OF ENVIRONMENTAL GOVERNANCE PRACTICES: CURRENT STATE AND TRENDS IN GOVERNANCE

June, 2007

This publication was produced for review by the United States Agency for International Development. It was prepared by Development Alternatives, Inc.

The EcoGov 2 Project is an initiative of the Government of the Philippines, implemented in partnership with the Department of Environment and Natural Resources, Department of the Interior and Local Government, local government units and other stakeholders, funded by the United States Agency for International Development and managed by Development Alternatives, Inc. and its subcontractors:

- Cesar Virata & Associates, Inc.
- Deloitte Touche Tohmatsu Emerging Markets
- The Marine Environment and Resources Foundation, Inc.
- The Media Network
- Orient Integrated Development Consultants, Inc.
- Resources, Environment and Economics Center for Studies, Inc.

PHILIPPINE ENVIRONMENTAL GOVERNANCE 2 PROJECT (ECOGOV 2)

MID-TERM (2007) GUIDED LGU SELF-ASSESSMENT ON THE STATE OF ENVIRONMENTAL GOVERNANCE PRACTICES: CURRENT STATE AND TRENDS IN GOVERNANCE

June, 2007

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMS

BEMO	-	Bohol Environment Management Office
BFAR	-	Bureau of Fisheries and Aquatic Resources
BSWMC	-	Barangay Solid Waste Management Committee
CADT	-	Certificate of Ancestral Domain Title
CALT	-	Certificate of Ancestral Land Title
CBFM	-	Community Based Forest Management
CENRO	-	Community Environment and Natural Resources Office
CENRO	-	City Environment and Natural Resources Office/r
CFARMC	-	City Fisheries and Aquatic Resources Management Council
CMMO	-	Coastal and Marine Management Office
CPDC	-	City Planning and Development Coordinator
CPDO	-	City Planning and Development Office
CRM	-	Coastal Resources Management
CSC	-	Certificate of Stewardship Contract
DA-BFAR	-	Department of Agriculture- Bureau of Fisheries and Aquatic Resources
DENR	-	Department of Environment and Natural Resources
DILG	-	Department of the Interior and Local Government
DOST	-	Department of Science and Technology
EcoGov	-	Philippine Environmental Governance Project
EMB	-	Environmental Management Bureau
ENRDP	-	European Union Environment and Natural Resources Development Project
ENRO	-	Environment and Natural Resources Office
ESWMB	-	Ecological Solid Waste Management Board
ESWMO	-	Ecological Solid Waste Management Office
FARMC	-	Fisheries and Aquatic Resources Management Council
FFM	-	Forests and Forestlands Management
FGD	-	Focus Group Discussion
FLUP	-	Forest Land Use Plan
FRM	-	Fishery Resources Management
GRP	-	Government of the Republic of the Philippines
GSA	-	Guided LGU Self-assessment on the State of Environmental Governance
IBRA	-	Illana Bay Regional Alliance
IEC	-	Information, Education and Communication
IRA	-	Internal Revenue Allocation
ISWM	-	Intergrated Solid Waste Management
LCE	-	Local Chief Executive
LGU	-	Local Government Unit
LIM	-	Local Government Unit Internal Management
M&E	-	Monitoring and Evaluation
MENRO	-	Municipal Environment and Natural Resources Office

MFARMC	-	Municipal Fisheries and Aquatic Resources Management Council
MFSR	-	Mangrove Swamp Forest Reserve
MGB	-	Mines and Geosciences Bureau
MPA	-	Marine Protected Area
MPDC	-	Municipal Planning and Development Coordinator
MPDO	-	Municipal Planning and Development Office
MSWMB	-	Municipal Social Waste Management Board
NAMRIA	-	National Mapping And Resource Information Authority
NSWMC	-	National Solid Waste Management Commission
NGO	-	Non-Government Organization
PAMB	-	Protected Area Management Board
PCDF	-	Philippines-Canada Development Fund
PMP	-	Performance Monitoring Plan
PO	-	People's Organization
RA	-	Republic Act
SWMC	-	Solid Waste Management Committee
TA	-	Technical Assistance
TWG	-	Technical Working Group
UEM	-	Urban Environmental Management
USAID	-	United States Agency for International Development
WFR	-	Watershed Forest Reserve

MID-TERM (2007) GUIDED LGU SELF-ASSESSMENT ON THE STATE OF ENVIRONMENTAL GOVERNANCE PRACTICES: CURRENT STATE AND TRENDS IN GOVERNANCE

INTRODUCTION

This report discusses the results of the second iteration of the 'Guided LGU Self-assessment on the State of Environmental Governance' (GSA) practices that Local Government Units (LGUs) assisted by the Philippine Environmental Governance Phase 2 (EcoGov 2) Project underwent from August 2007 to January 2008. It covers total of 91 LGUs in EcoGov 2 sites in Northern Luzon; Central Visayas; and South, Central and Western Mindanao. Nine of these LGUs participated in the survey for the first time.

The first survey undertaken in 2005 constitutes the baseline assessment of LGU performance. This second survey coincides with EcoGov 2 mid-project implementation tracking of progress in environmental governance among assisted LGUs, in connection with its target of "80 government institutions meeting good environmental governance index benchmarks" by the Project completion date in 2009.

This report has four parts. Part A looks back to the 2005 baseline survey objectives, procedure, findings, analyses, and recommendations. Part B provides an overview of the coverage, process, and objectives of the 2007 mid-term assessment. Part C presents the results of this latest assessment. Important trends in terms of the values of the various environmental governance indices, adoption of higher level practices, and gaps, deteriorations and backsliding in practices are presented and analyzed by region, sector, governance function, and governance principle.

The progress in environmental governance of the 82 'old' LGUs or those that underwent the GSA in 2005-2006 is closely tracked to assess the effectiveness of EcoGov interventions and LGUs' own initiatives. Biophysical improvements using data from the EcoGov's LGU biophysical performance monitoring are compared with the GSA results to analyze the link between index performance and on-the ground environmental quality changes in assisted LGUs.

Part D tackles proposed methodological approach and benchmark for the final GSA in 2009 and the proposed process and social marketing strategy for institutionalizing GSA as a management tool for improving LGU environmental governance performance. Recommendations toward meeting the final environmental governance index benchmark by the final assessment in 2009 are forwarded based on the results, along with important insights gained by EcoGov in the process of assisting LGUs to improve their environmental governance. The recommendations include strategic interventions that

each LGU with technical assistance from EcoGov should implement so as to elevate the functionality of its systems, structure (offices and bodies), rules and operating procedures to provide a strong anchor for implementing and sustaining best practices in environmental governance.

This report is meant to provide an over-all picture of LGU adoption of best practices in environmental governance since the baseline assessment. Detailed information about each LGU's specific performance is tackled in the individual report prepared per LGU.

PART A:
LOOKING BACK TO THE BASELINE/2005 SURVEY

1.0 SURVEY CONTEXT

The Philippine Environmental Governance 2 (EcoGov 2) Project works with the Government of the Republic of the Philippines (GRP) Department of Environment and Natural Resources (DENR) in the implementation of activities resulting in improved environmental governance by the project's local and national counterparts. Strategic focuses are on improved management of forests, coastal areas, and solid waste, and the promotion of local government investment in sanitation facilities.

At the end of five years of EcoGov 2 implementation, one of the major targets against which project performance will be measured is:

> ***"80 government institutions meeting environmental good governance index benchmarks. These indicators cover five environmental governance functions: 1) resource management and utilization planning; 2) budgeting; 3) contracting, bidding and procurement; 4) licensing, permitting, and issuance of tenure and allocation instruments; and 5) enforcement of laws and regulations."***

Broadly defined, environmental governance refers to the system of societal controls on human behavior relating to the environment. Societal controls arise from the deliberate decisions and actions of environmental institutions (such as local government units) together with sectors of society (such as communities) to shape the state and condition of the environment toward ways to serve various human and ecological objectives. Good environmental governance is, thus, "a process of undertaking decisions and actions that lead to positive and sustainable impact on the social and ecological environment."

EcoGov 2 has identified 'best practices' that embody good environmental governance. These "best practices" consist of social (e.g., community organizing) and/or technical strategies (e.g., resource management planning) that incorporate good governance

principles of transparency, accountability, public participation, and functionality in their execution.

To measure the progress in environmental governance of assisted LGUs, EcoGov 2 has developed the ***Guided LGU Self-Assessment on the State of Environmental Governance Practices*** or GSA. The GSA is a simple management tool intended to help to objectively track, guide and assess the process by which LGUs and local communities—with support from concerned national agencies particularly the Department of Environment and Natural Resources (DENR)—acquire and adopt relevant best practices in environmental governance. Three survey periods are targeted: baseline, mid-term and final assessment.

The initial self-assessment established baseline information on current environmental governance practices, to be used in tracking local governance improvements over time that may be linked to EcoGov 2 technical assistance and LGU's own initiatives. The mid-term assessment is mid-project tracking of progress in environmental governance among assisted LGUs. It is conducted to provide the basis for trend analysis and setting of final benchmarks. The final assessment provides end-of-project measurement of governance status of assisted LGUs, which in turn, will indicate EcoGov success or failure in achieving its target of 80 'governance institutions achieving good environmental governance benchmark'.

The GSA answers two basic questions: 1) what mandated environmental management functions have been or are being implemented by the LGU (i.e., *what things need to be done*) and 2) how are these functions being implemented by the LGU (i.e., *how are things that need to be done being done*)? The first question determines whether the LGU does what it needs to do in relation to its environment mandate while the second question assesses how the LGU does what it is supposed to do, i.e., whether it does rightly what needs to be done.

The GSA tracks LGU adoption of five categories of environmental management functions as mandated by existing laws such as the Local Government Code (RA 7160), Ecological Solid Waste Management Act of 2000 (RA 9003), Philippine Fisheries Code (RA 8550), and Philippine Clean Water Act of 2004 (RA 9275). These functions are: (1) resource management and utilization planning and implementation; (2) budgeting; (3) contracting, bidding and procurement; (4) licensing, permitting, and issuance of tenure and allocation instruments; and (5) enforcement of laws and regulations.

Four governance principles: functionality; transparency; accountability; and public participation—indicate the manner by which governance functions should be carried out. An LGU adheres to these principles when it passes the following basic tests:

- Functionality: Are basic management systems (plans, offices/staff/bodies, systems, rules) in place and producing desired results?
- Transparency: Does the public have easy and reasonable access to government information?

- Accountability: Are the responsibilities, reporting and working relationships of LGU officials, staff, designated bodies clearly defined and are they held responsible for their decisions and actions?
- Public Participation: Can the public effectively get involved in LGU decisions and actions?

Using the GSA as a simple management tool, weaknesses or gaps in environmental governance can be systematically identified so that more concrete and appropriate steps can be taken (by EcoGov 2, DENR, DILG, etc.) to more effectively assist the concerned LGU. Through the GSA, LGU-specific strengths and weaknesses can be pinpointed as to (a) sector: forests; coastal; or urban environment; (b) function: planning and implementation; budgeting; procurement; permitting/licensing/issuance of tenure instruments; or law enforcement; and (c) principle: functionality, transparency, accountability or participatory-ness.

2.0 SURVEY DESIGN

Designed as a ***rapid assessment*** rather than as an in-depth study, the GSA posed a series of 57 'core' questions—all answerable by "yes" or "no"—contained in four standard questionnaires. Each of the questions was carefully framed to represent selected "best practices" in the management of forestlands, coastal areas and solid waste and wastewater, which are all deemed doable, within five years of EcoGov 2 implementation,

Of the total of 57 questions, 32 are on functionality; 10 on transparency; five on accountability; and 10 on participatory-ness. Categorizing by governance function, 28 of the 57 questions are on planning and implementation; 12 on law enforcement; three on issuance of permits and licenses; two on budgeting; three on procurement; and nine on tasks that cross-cut these functions.

Each 'best practice' contains minimum prerequisites or characteristics. To qualify for a 'yes' answer, the participants were asked to consider the "entirety" of the prerequisites. For instance, the first question in the FFM, CRM and UEM questionnaires requires not only that a resource management plan be approved by the *Sanggunian*, but also that said plan had gone through community consultations, and that it includes a minimum range of required sections (e.g., for the 10-year ISWM Plan, those required under RA 9003).

Around three-fourths of the 57 core questions can be answered with a higher degree of objectivity because the answers can be verified from existing records and documents, which the LGUs were asked to compile and present as evidence for 'yes' answers. Examples are questions about the presence of an ordinance and formulation, legitimization and adoption of a resource management plan. The rest of the questions (one-fourth of total) are more subjective in nature, as these involve qualitative attributes such as "effective", "efficient" and "meaningful" that may be subject to diverse perceptions of individuals. These qualifiers are operationally defined in the questionnaires so as to reduce the subjectivity.

In each LGU, multi-sectoral group of local key informants was convened to "self-assess" governance practices, i.e., to decide among themselves the answer to each and every question. This presence of multisectoral participants and the practice of getting 'majority/consensus' answer also helped reduce subjectivity.

Considering that only 'yes' or 'no' are the possible answers, the "quality of response" can be gleaned from supporting notes that provide the "context" for each answer. The method is "guided" because external facilitators explain the questions and the standards of performance to help the informants to arrive at a consensus 'yes' or 'no' answer. The questionnaires were administered sector-by-sector, following a strict protocol. The resulting index is a numerical value between 0.00 and 1.00, derived by simply dividing the number of 'yes' answers by the total number of questions asked. Indices were computed for the LGU as a whole (the "cross-sector index"); for each sector (forest, coastal and urban, plus LGU internal management); and for each of the aforementioned five governance functions and four governance principles.

The straightforward interpretation of the index is that the higher the numerical value, the more a particular LGU was practicing good environmental governance at the time the self-assessment was conducted. The indices are to be regarded as relative values with respect to the ideal "1.00" and over a period of time within an LGU. The unique institutional, biophysical and socio-economic conditions in each LGU constrain direct and accurate comparison of indices across LGUs, across provinces, and regions (in the sense of "EcoGov region', not political/administrative regions). This means that the means and percentages computed by province and by region are to be taken as indicative and not absolute reflection of relative standing of each LGU, province and region in the area of environmental governance.

3.0 SURVEY RESULTS

The 2005 baseline survey was conducted among 79 city and municipal LGUs assisted by EcoGov in 15 provinces in Northern Luzon, Central Visayas, Southern Mindanao and Western Mindanao. In 2006, an additional 8 LGUs, six from South and Central Mindanao, and one each from Central Visayas and Northern Luzon underwent baseline assessment, bringing to 87 the total number of LGUs that underwent the process from 2005-2006. These 8 LGUs are: Aritao (Northern Luzon), Carmen (Central Visayas) and the following LGUs from South and Central Mindanao: Surallah, Tupi, Tboli, Polomolok, Davao City, General Santos City.

3.1 Baseline Categories

Four categories of LGUs emerged from the baseline self-assessment: 1) "***Well-performing"*** or those that obtained a cross-sector index of >0.76, 2) ***"median"*** or those with cross sector index in between Categories 1 and 3 (i.e., between 0.39 and 0.76), but not "overspecializing", 3) ***"low"*** or LGUs with consistently low indices (cross-sector

index of below 0.38), and 4) ***"overspecializing***". An LGU is considered to be "overspecializing" when the index in one sector is >0.76, while that in another sector is less or equal to 0.38.

The 2005-2006 baseline self-assessments showed the preponderance of 'median' (34%) and 'overspecializing' (33%) LGUs. Of the total number of LGUs that underwent the process, well- performing LGUs (23%) comprised around one-fourth while Category 3 LGUs were the least in number (10%). The five top performing LGUs and their cross-sector indices were: Zamboanga City (0.96), General Santos City (0.96), Dalaguete City (0.93), Dauin (0.89) and Bayawan City (0.89)

3.2 Mid-Term Benchmark

The categorization served as "framework" for the project to design and deliver more responsive and effective technical assistance and training to target LGUs to help them move to higher level performance and, ultimately, to achieve set 'benchmarks'. The 'mid-term benchmarks' are indicative indices that LGUs belonging to each category are projected to reach by this year's (2007) self-assessment.

Because the amount of effort that will need to be exerted for an LGU to achieve its mid-term benchmark is expected to be inversely proportional to its baseline index, no single 'benchmark' was set for all LGUs for the mid-term assessment. Rather, separate 'benchmarks' were proposed per LGU category, in recognition of each LGU's unique baseline situation.

For *Category 1 LGUs*, the focus was on sustaining good performance and helping them move closer to the ideal 1.00. At least the same level of cross-sector index was targeted for the 2007 mid-term assessment. Focus on *Category 2 LGUs* was on the sector where LGU performance can be significantly improved. The strategy was to closely assist LGUs in this Category to show significant progress toward the ideal index of 1.00 in one other sector which is relatively poorly performing, whether or not that sector is currently project-assisted. "Significant progress" is defined to mean a minimum 50% increase in the baseline index of a relatively poorly performing sector by the mid-term assessment in 2007.

Intensified assistance to *Category 3 LGUs* was proposed to enable them to show significant progress in all sectors, whether or not a sector is currently project-assisted. "Significant progress" is defined to mean raising sector indices to a minimum of 0.50 by 2007. For *Category 4 LGUs*, a 'catch-up assistance strategy' was recommended so as not only to enable the "neglected sector" to catch up, but also to better understand the key factors that constrain LGU-wide adoption of best practices".EcoGov2 proposed to assist these LGUs to achieve significant progress in the weakest sector, whether or not that sector is currently being assisted by the project. Significant progress is defined to mean a minimum index of 0.50 by 2007 in that weakest sector.

The number of Categories 3 and 4 LGUs was expected to decline by the mid-term assessment as they graduate to the next higher levels of either 1 or 2, as a result of these project assistance strategies. By the final assessment, all LGUs are expected to have moved closer to 1, or to belong to Category 1.

3.3 Factors Affecting LGU Environmental Governance Performance

The baseline survey showed that the level of governance index is strongly influenced by outside assistance provided to the LGU. With few exceptions, LGUs with support from EcoGov and/or other organizations tended to obtain higher indices compared to those with no external support. The index level and LGU budgets were found intuitively connected. However, the degree to which available budgets influence the index level has yet to be firmly established. In Central Visayas, there seemed a clear connection between the level of index and the amount budgeted for environmental activities. On the other hand, the findings in other LGUs suggested that environmental governance can be improved notwithstanding limitations in funding. Budgetary constraints could be offset by the ability of LGUs to mobilize funds from external sources or by being more efficient and effective in the utilization of available funds and in the choice or prioritization of programs and projects. In the long-run, it appeared that the implementation of various environmental governance initiatives will require larger and sustainable allocation of LGU and agency budgets. Networking and inter-LGU collaboration were found effective strategies for pooling together scarce resources for implementing projects addressing common issues and concerns in waste management and for managing shared coastal and marine ecosystems.

While it was expected that cities would rate higher than the more remote and inaccessible municipalities, this was not the case, however, in many instances where remote municipalities garnered a higher index compared to the larger cities or the more urbanized areas. Other key factors appeared to be at work, including LGU innovativeness, leadership and commitment to long-term sustainability transcending myopic politics. Also found important are cultural factors, i.e., degree of homogeneity of residents within a certain community; as well as historical influences.

4.0 LGU Feedback Reports and Application of Baseline Survey Results

EcoGov 2 prepared individual LGU GSA report for each LGU that underwent the baseline survey. Each report highlights the best practices already adopted or yet to be adopted in each LGU, what good practices have to be enhanced, what deficiencies have to be addressed, and the context of local environmental governance. The report was used by both the LGU and EcoGov during the feedbacking session held in 2006 as a reference in identifying environmental governance improvements that can input in the updating and/or refinement of LGU workplans and in formulating strategic assistance to be provided by EcoGov 2 to the LGU. Feedbacking also served as a venue for the various

stakeholders to identify together what additional resources, linkages and further assistance from other pertinent agencies and organizations should be tapped by the LGU. This also helped EcoGov gain better appreciation of the condition, challenges and constraints of each of the assisted LGUs. Except for the LGUs in Western Mindanao where EcoGov held informal sessions with local chief executives and other key officials to brief them about the results of the baseline GSA and to discuss together strategies for moving forward, all feedbacking sessions were held in the form of formal action planning workshops. A template matrix was used in all such sessions that allowed systematic way of analyzing the gaps and weaknesses in current LGU performance and how the LGU, EcoGov and other agencies and sectors in the locality can jointly address them

While the GSA was meant to be a simple management tool, the baseline application has shown that it can likewise be a multipurpose tool for (a) IEC on the 'best practices' in environmental governance, (b) the review and inventory of the various types/areas of assistance being or to be provided to LGUs; (c) training LGUs on the self-assessment method and group facilitation techniques; (d) exchange of current information between the LGU and non-LGU participants, and sometimes, even among the LGU participants themselves; and (e) multi-sectoral reflection and leveling off on the state of environmental governance practices, and moving them to collective action to improve current level of performance.

PART B:
THE MID-TERM/2007 SURVEY: AN OVERVIEW

5.0 OBJECTIVES AND PRACTICAL USES

The mid-term assessment was conducted to reliably track trends in LGU environmental governance systems since the baseline assessment. From EcoGov's point of view this was done to assess how far the project is from the final benchmark target. By comparing midterm results with the baseline results per LGU, improvements, "no movement" and slippages in terms of governance principles: FTAP; governance functions, and over-all LGU environmental governance processes/systems can be tracked.

The GSA satisfies the need to capture LGU performance from the LGU's own point of view. The results can be used and cross-referenced with certain project generated data and parameters to assess whether biophysical and institutional targets identified in the Project Performance Monitoring Plan are being achieved from both the LGU and project's point of view. By doing site audit, they can also be used to assess whether improvements in governance systems translate to tangible improvements on the ground.

The mid-term assessment also aimed to help EcoGov refine LGU- and sector-specific assistance strategies to improve LGU performance, and use these analyses in the strategic

planning for Year 4 per region and per sector. To help refine EcoGov TA, the project will use the mid-term GSA results to: 1) understand in a deeper way each LGU's contexts and beliefs vis-à-vis performance so as to capture motivating factors to improve performance, and 2) analyze the TA inputs in the past and how effective have these been for such LGU. The latter can help elucidate the strategies that work best in a particular LGU situation, which can be used in mainstreaming EcoGov processes in the regions through upscaling. Through the GSA, EcoGov can also identify model LGUs for advocacy and upscaling activities; and systematically phase out from an LGU, depending on its progress and ability to carry on activities on its own.

As with the baseline GSA, LGUs can use the mid-term-GSA results to:

- Strengthen environmental programs and policies based on adoption of best practices
- Acquire new knowledge about best practices;
- Enhance partnership with citizens and other stakeholders (e.g., DENR, BFAR, academe, local NGOs) ;
- Refine internal operations (e.g., budgeting, procurement, database, personnel performance)
- Market themselves to international funding agencies.
- Reinforce database for LGU credit rating.

Citizen's groups can advocate for the use of the GSA as an accountability tool – to leverage good governance from the LGU and to identify areas where they can partner with the LGU; and to provide a check and balance mechanism.

6.0 ENHANCEMENTS IN GSA PROCEDURE

6.1 Forms

The same set as original questions and basic procedure were used for the mid-term GSA so as to ensure the comparability of results over time and to provide a strong basis for trend analysis. This means that the same set of up to 57 questions (if all sectors are present in the LGU) and types of 'best practices', standards of performance, and scoring system as the baseline assessment were utilized for the mid-term GSA.

The use of the same set of 57 core questions has been designed to reduce "questionnaire-induced bias". However, certain changes were incorporated in the survey forms to include sections that would capture and document the adoption of 'higher level/more in-depth practices', and deteriorations (including reasons) that occurred in the LGU since the baseline assessment. Higher level 'best practices' were documented to further establish and understand the quality and depth by which specific governance practices are being carried out by the LGUs. The presence of 'higher level practices' did not give additional points to the LGUs. They, however, serve as useful indicators of LGU commitment to bring environmental governance to a higher and more mature level.

The new format also made it easier to document the 'best practices' adopted by just ticking the appropriate box/es. A section was also added that asked about observed results/outcomes of adoption of 'best practices'.The explanatory notes portion was also expanded to clarify further the standards of performance being asked, as well as provide clearer guidance for facilitator and respondents in identifying 'improvements/higher level practices'.

Due to the expected additional time it would take to complete the survey, the post-assessment evaluation used only 5 questions instead of the original 17. A post-evaluation ("exit poll") questionnaire was administered among individual key informants to gain insights as to the objectivity of the GSA process just undertaken and to validate group consensus answer with individual perception

6.2 Process

To help reduce "facilitator" and "core informants" "induced bias" and allow for greater comparability of results over time, the same set of facilitators and core informants conducted the mid-term assessment as much as possible. The GSA baseline informants consisted of an average of 16 persons composed of the EcoGov 2 Project multi-sectoral Technical Working Group (TWG), and additional representatives of "concerned ordinary citizens" who are not directly involved in EcoGov 2 implementation. The latter included representatives coming from NGOs/POs, national line agencies, the academe, public schools, religious groups and local business sector.

Care was taken so as to improve the ratio between LGU and non-LGU 'core informants' as the predominance of LGU core 'informants' was noticed in many LGUs during the baseline assessment. The proportion of LGU 'core informants' was 62% in Northern Luzon; 65% in Central Visayas; 54% in Southern Mindanao; and 64% in Western Mindanao during the baseline assessment. During the midterm assessment, the proportion of non-LGU participants greatly improved among Northern Luzon and Central Visayas LGUs. However, LGU participants still comprised around two-thirds of participants in the case of LGUs in Mindanao.

While the same basic survey procedure was used, certain other enhancements, as follows, were made: 1) regional specialists as much as possible served as either main facilitators and resource persons for their own sector, 2) compilation and review of documentary evidences before the survey, 3) collection of background data (income, population, forest land area etc) before hand and not during the GSA, 4) the Municipal/City Planning and Development Coordinator (MPDC/CPDC) and Municipal/City Environment and Natural Resources Officer (MENRO/CENRO) were required to participate in all sectors assessed; 5) careful timing of delivery of invitation letters to enhance participation by critical non-LGU stakeholders, and 6) involvement of LGU personnel, if possible, as resource person (particularly for LIM) and documentor. The latter is an initial step to encourage the LGUs to sustain the use of the GSA as a performance management tool beyond the life of EcoGov 2.

In addition, the orientation of facilitators included a short lecture on how they can improve their facilitation skills to enhance the quality of each assessment.

6.3 Range of Indices Under Each LGU Category

The same number of categories (Categories 1-4) was used in grouping the LGUs according to their performance in the GSA. However, a slight adjustment was made in the range of over-all environmental governance indices considered for Category 1 (well-performing) LGUs. Whereas during the baseline assessment, the minimum over-all environmental governance index that an LGU had to achieve to be considered for Category 1 status was 0.77, this was lowered to 0.75, which is seen as more reasonable and easier to communicate (i.e. 75% is traditionally considered a 'passing rate' in the Philippines) . An index of 0.75 means a LGU is able to adopt three-fourths or 43 of the 57 'best practices', if it has all three environment sectors (FFM, CRM, UEM) and LIM. The 0.02 difference in over-all environmental governance index translates to adoption of one less 'best practice' indicator from the previous 44, in the case of LGUs that undertake self-assessment in all three environment sectors.

7.0 SURVEY HYPOTHESIS

Improved performance of participating LGUs as reflected in significant increases in the values of the different indices (sector, function, principle, cross-sector) over the baseline values was expected to be observed in the midterm assessment. The improvement, which can be tied to EcoGov technical assistance and LGU's own initiative, was expected to at least conform to the pattern of increases predicted in the mid-term benchmarks described in section 3.2 above.

It should be acknowledged, however, that there might be some factors during the period since the baseline assessment that may have affected the pace and ability of LGUs to sustain existing 'best practices' and to adopt additional one. For instance, one very important factor that may have affected the configuration of mid-term indices is that 2007 was year for local elections. This means that at least the last quarter of 2006 and half of 2007 were slack months in terms of implementation of environmental governance activities, as LGU leaders heavily engaged in election-related activities. Section 3.3 discusses some of the factors that seemed to influence LGU environmental governance performance during the baseline assessment. The same factors have been anticipated to be at work for the mid-term assessment.

8.0 COVERAGE OF MID-TERM/2007 SURVEY

The 2007 GSA covered a total of 91 LGUs technically assisted by EcoGov through its various offices in Northern Luzon, Central Visayas, and in the Southern, Central and Western parts of Mindanao (**Table 1**). The survey, which involved a total of 1,516 FGD participants in 78 municipalities and 13 cities was conducted during the period August 2007- January 2008.

Females comprised around one-third of the participants. It was only in Bohol Province where on average, there were more female than male participants. Women's participation in the GSA was noticeably lowest among the LGUs in Lanao del Sur and North Cotabato provinces. Participation of women in the assessment made sure that women's voice, perception and understanding of issues inputted in the performance assessment process. Indigenous peoples and Muslim representatives also came and participated in the assessment of their LGUs.

Table 1. Number of LGUs and FGD respondents covered by the 2007 mid-term GSA

Regions & Provinces	No. of LGUs			No. of FGD Participants			Gender of Participants		Period of Assessment
	Mun.	Cities	Total	LGU	Others	Total	Male	Female	
Northern Luzon									
▪ Nueva Vizcaya	8	0	8	64	52	116	74	42 (36%)	Aug.1-22
▪ Aurora	5	0	5	42	31	73	48	25 (34%)	Sept.10-13
▪ Quirino	5	0	0	30	46	76	43	33 (43%)	Sept. 4-6
▪ Isabela	0	1	1	8	4	12	7	5 (42%)	Sept. 10
TOTAL	**18**	**1**	**19**	**144**	**133 (48%)**	**277**	**172**	**105 (38%)**	
Central Visayas									
▪ Cebu	10	2	12	84	88	172	122	50 (29%)	Jul.2-Oct. 9
▪ Bohol	10	0	10	88	54	142	51	91 (64%)	Jul. 18-Sep.13
▪ Siquijor	2	0	2	14	12	26	17	9 (35%)	Aug.23-31
▪ Negros Oriental	8	2	19	113	71	184	125	59 (32%)	Jul.3-Sep 14
TOTAL	**30**	**4**	**34**	**299**	**225 (43%)**	**524**	**365**	**159 (30%)**	
Southern Mindanao									
▪ Sultan Kudarat	5	0	5	67	17	84	56	28 (33%	Sept 5-14
▪ Lanao del Sur	1	0	1	10	11	21	19	2 (10%)	Sept. 28
▪ Sarangani	4	0	4	48	22	70	49	21 (30%)	Sept 4-18
▪ South Cotabato	5	3	8	110	64	174	114	60 (34%)	Sept 4-14
▪ North Cotabato	1	1	2	26	7	33	27	6 (18%)	Sept 7-21
▪ Davao City		1	1	8	3	11	7	4 (36%)	Sept. 13
TOTAL	**16**	**5**	**21**	**269**	**124 (32%)**	**393**	**272**	**121 (31%)**	
Western Mindanao									
▪ Basilan	1	1	2	14	7	21	14	7 (33%)	Aug.16-Oct.2
▪ Zambo Sibugay	6	0	6	40	50	90	66	24 (27%)	Jul 20-Jan.25/08
▪ Zambo del Sur	7	2	9	157	54	211	141	70 (33%)	Aug 17-Dec 23
TOTAL	**14**	**3**	**17**	**211**	**111 (34%)**	**322**	**221**	**101 (31%)**	
GRAND TOTAL	**78**	**13**	**91**	**923**	**593 (39%)**	**1,516**	**1,030**	**486 (32%)**	

8.1 Old LGUs

Eighty two (82) LGUs that underwent the baseline survey in 2005-2006 self-assessed again for the 2007 mid-term assessment. Five original LGUs (Tagbilaran City, Sultan Kudarat, Parang, Alburquerque, and Santiago City) were excluded from the mid-term assessment for various strategic reasons including discontinuance of EcoGov assistance.

8.2 New LGUs

The mid-term assessment covered nine newly assisted LGUs. Five of these LGUs are located in Central Visayas while four are from South and Central Mindanao **(Table 2)**. The results of the 2007 survey serve as their baseline environmental governance performance.

Table 2. Newly assisted LGUs that underwent baseline assessment in 2007

Region/Province	Name of LGU	Start Date and Area of Technical Assistance	Date Assessed
Central Visayas			
Cebu	Moalboal		
Siquijor	Lazi	Marine Protected Area (MPA)-May 2007	Aug. 31/2007 Aug. 23/2007 Sept. 14/2007
	Siquijor	MPA-April 2007	Aug. 22/2007
Negros Oriental	Bindoy	MPA	
	Ayungon	MPA-2006	
TOTAL	**5**		
South and Central Mindanao			
Sultan Kudarat	Bagumbayan, Sen. N. Aquino	FFM-2006	Sept. 14/2007
South Cotabato	Tampakan	UEM-Dec. 2006	Sept. 11/2007
Sarangani	Alabel	FFM-	Sept. 18/2007
TOTAL	**4**		
GRAND TOTAL	**9**		

PART C:
STATE OF ENVIRONMENTAL GOVERNANCE PRACTICES: CURRENT STATE, TRENDS, AND ANALYSES

9.0 NORTHERN LUZON INDICES: STATE, TRENDS AND DETERMINANTS

Northern Luzon is among the geographic foci of EcoGov's technical assistance in terrestrial biodiversity conservation. The four provinces (Nueva Vizcaya, Quirino, Aurora and Isabela) being assisted by Ecogov 2 in this region, are home to key biodiversity areas which include the Northern Sierra Madre mountains, Quirino Protected Lanscape, Casecnan Protected Lanscape and Aurora Memorial Park, where remaining largest blocks of rainforests can still be found. The Sierra Madre rainforest is refuge to 63% of known endemics in the Luzon faunal region or 28% of total Philippine endemics and to thirty (30) or 58% of known threatened species in Luzon (Boquiren, 2005[1]). Despite the presence of protected areas, the race to conserve biodiversity in this region is both stiff and arduous. It requires an ability to harmonize and balance between competing economic (e.g., mining and timber production) and biodiversity uses, but social equity and justice goals as well, considering that the area is also ancestral home to indigenous peoples groups.

The same 19 LGUs that conducted the baseline GSA in 2005-2006 are covered by the mid-term assessment in Northern Luzon. Table 3 shows the areas and periods of EcoGov technical assistance to these 19 LGUs, as well as the assistance they received from other organizations. The active role of the provincial government in improving local environmental governance by providing technical and financial assistance to component LGUs can be noted from this Table.

Table 3. Type and period of EcoGov 2 and other organizations' assistance to Northern Luzon LGUs

	EcoGov 2 Technical Assistance (TA) and year when assistance started			Assistance from other organizations and year when assistance started		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
NUEVA VIZCAYA:						
Bayombong	None	Not applicable (NA)	Direct TA (July 2003)	None	NA	Financial & TA/equipment support from the Province (2005)
Solano	None	NA	Direct TA (July 2003)	None	NA	- do -
Bagabag	None	NA	Direct TA (July 2003)	None	NA	- do -

[1] Boquiren, Rowena. 2005. EIA System: Implications on Indigenous Peoples and Biodiversity Status in Northern Luzon. Powerpoint presented at the Northern Luzon Forum on the Environment and Social Impact Assessment. 24 September 2005. University of the Philippines Baguio, Baguio City

	EcoGov 2 Technical Assistance (TA) and year when assistance started			Assistance from other organizations and year when assistance started		
Dupax Sur	Direct TA (2003)	NA	Upscaling TA (2006)	None	NA	- do -
Dupax del Norte	Upscaling TA (2006)	NA	Direct TA (July 2003)	None	NA	- do -
Quezon	Direct TA (2003)	NA	Direct TA (2003)	TA from FRENDS, Inc.& DENR, financial support from PTFCF/CEPF	NA	-do-
Bambang	Direct TA on UEM July 2003)	NA	Direct TA (July 2003)	None	NA	-do-
Aritao	Upscaling TA (2006)	NA	Direct TA (2006)	None	NA	-do- (2007)
AURORA						
Baler	Direct TA (2003)	Direct TA (2003)	Direct TA (2006)	None	ASCOT (Buhay na Tubig - 2004 to 2006) & PLGU through the ILCRMC (2006 up to present); DA for livelihood	None
Dipaculao	Upscaling TA (2006)	Direct TA (2003)	Upscaling TA (2006)	PLGU/ DENR through upscaling (2006)	PLGU assistance thru the ILCRMC (2006)	Technical & financial assistance from PLGU
Dinalungan	Upscaling TA (2006)	Direct TA (2003)	Upscaling TA (2006)	PLGU/ DENR through upscaling (2006)	PLGU assistance thru the ILCRMC (2006)	Technical & financial assistance from PLGU
San Luis	Upscaling TA (2006)	Direct TA (2003)	Upscaling TA (2006)	PLGU/ DENR through upscaling (2006)	PLGU assistance thru the ILCRMC (2006)	Technical & financial assistance from PLGU
Maria Aurora	Upscaling TA (2006)	NA	Direct TA (2004)	PLGU/ DENR upscaling assistance (2006)	NA	None
QUIRINO						
Diffun	Direct TA (2003)	NA	Direct TA (2003)	PLGU financial and technical support (2004-present) CFFQI – technical assistance (2005- present)	NA	PLGU – financial and technical support (2004 up to present); EMB - TA support (2003 to present)
Nagtipunan	Direct TA (2003)	NA	Upscaling TA (2006)	PLGU financial and technical support (2004-present) CFFQI – technical assistance (2005- present)	NA	PLGU – financial and technical support (2004 up to present)
Maddela	Direct TA (2003)	NA	Direct TA (2003)	CFFQI – TA (2005-present) PLGU – financial and technical support (2004-present)	NA	PLGU – financial and technical support (2006 to present); EMB - TA support (2003 to present)
Aglipay	Direct TA (2003)	NA	Upscaling TA (2006)	CFFQI – TA (2005-present) PLGU – financial and technical support (2004-present)	NA	PLGU – financial and technical support (2006 to present); EMB - TA support (2003 to present)
Cabarroguis	Direct TA (2003)	NA	Direct TA (2003)	CFFQI – TA (2005-present) PLGU – financial and technical support (2004-present)	NA	PLGU financial and technical support (2004-present); EMB - TA support (2003 to present)
ISABELA						
Cauayan City	None	NA	Direct TA (Dec 2003)	NA	NA	Phil. Air Force (SWM receptacles)

9.1 Update on Profile of LGUs Covered

Table 4 shows the profile of the 18 municipalities and 1 city that conducted the mid-term assessment in Northern Luzon. Seven LGUs (37%) belonged to the high income class brackets of first and second but most (63%) were either 3rd or 4th income class LGUs. Two LGUs (Dupax del Norte and Quezon) have moved up to the next higher income class.

Common characteristics of the LGUs are: 1) primacy of agriculture and natural resources as the base of local economy, 2) very low population density which derives from having large territorial area, and 3) vast forestlands, which constitute more than 50% of total land area in 14 LGUs.

Fifteen or more than 80% of the LGUs host one (1) or several terrestrial protected areas, mostly classified as watershed forest reserves and protected landscapes. Protected areas are 'environmental set asides', specifically designed to produce 'public goods' and have limited developmental uses. Ironically, they are also most vulnerable in spite of their protected status because of varied socio-economic reasons. Except for four coastal municipalities in Aurora province, all LGUs are landlocked. All of the four (4) coastal municipalities have established at least one marine protected area (MPA) to conserve marine biodiversity and enhance local fisheries.

Farming is the predominant economic enterprise in all LGUs, which along with mining, quarrying, agri-plantation, and furniture making in some LGUs, were believed by GSA participants as the major economic activities that have impacts on the local environment.

9.2 Trend in LGU Spending on the Environment

While the averages presented below seem to suggest that average budget on environment from 20% Development Fund (DF) tend to decline with LGU class, this pattern is not so clear in the individual values presented in **Table 4,** at least in terms of the first to third income class LGUs**.** To illustrate, there were eight municipalities belonging to the lower income classes that budgeted similar or higher amounts for the environment than the three first class municipalities. Most (6 out of 8) of the third income class municipalities, in fact, budgeted similar or higher amounts on the environment than the first class municipalities.

The above observations seem to indicate that the amount of budget allocation for the environment may depend on individual decision of the LGU, which, other things being equal, may be a useful gauge of the degree of priority it places on environment issues.

The effect of income class and therefore of financial wherewithal on LGU spending on the environment can be more clearly seen in the case of the four fourth income class LGUs, which generally budgeted the least amounts for the environment, and the lone city (Cauayan City), which provided the highest absolute budget for the environment. The fourth income class LGUs covered by the assessment received only yearly average of

around P30 million internal revenue allocation (IRA) in 2006-2007. Therefore, they could allocate only around 6 million pesos as their development fund for projects such as health, infrastructure, social services and environment.

	Municipality budget from 20% DF on environment (million pesos)				City budget
LGU Class	**1st Class (3 LGUs)**	**2nd Class (3 LGUs)**	**3rd Class (8 LGUs)**	**4th Class (4 LGUs)**	**1st class (1 LGU)**
Average amount allocated by the LGU for the environment in 2006-2007	0.90	1.50	1.05	0.38	4.7 million
Average percent share (%)	7	17	12	6	9

Another observation is that the LGUs generally invested bigger amounts on the environment in 2006-2007 compared to the amounts reported in 2004-2005, as shown in the comparison below. The observed general rise in the mid-term environmental governance indices of the LGUs seems a result of this increased investment on the environment. Nueva Vizcaya LGUs generally allocated the highest share of environment from the 20% DF. The Quirino LGUs, on average, provided the least percentage share of the environment budget in the 20% DF.

Province	Average share of environment in 20% DF, 2004-2005	Average share of environment in 20% DF (%), 2006-2007
Nueva Vizcaya (8 LGUs)	0.8 M (**11%**)	1.3 M (**15 %**)
Quirino (5 LGUs)	0.32 (**3 %**)	0.5 M (**4 %**)
Aurora (5 LGUs)	0.8 (**12 %**)	0.9 M (**11 %**)
Isabela (1 LGU)	3.9 (**9 %**)	4.7 M (**9 %**)
Over-all	0.85 (**8 %**)	1.15 M (**11** %)

All coastal municipalities programmed budgets for managing their coastal and marine resources and all lGUs allocated funds for UEM (**Table 5**). Table 5 also indicates that the per capita budget on UEM increased in 60% of the LGUs, which might explain the over-all improved performance in this sector. Except for San Luis, LGU allocation on CRM increased also.

FFM, however, seems to continue to be not a top priority in terms of share in LGU environment budget. To illustrate, while all 19 LGUs contain forestlands, there were five LGUs that did not allocate funds for FFM. Around half of the LGUs, in fact, either reduced or allocated no budget for FFM. The exceptions are the well-performing LGUs in Quirino, which except for one, increased the budget allocation for FFM.

9.3 Summary Indices

The LGUs generally exhibited marked improvement in their environmental governance as indicated by the rise in their mid-term over-all or cross- sector indices (**Tables 6 and 7**). The cross-sector environmental governance index, as explained above, is a composite index derived from the results of the assessment across all sectors (FFM, CRM and UEM, plus LGU internal management), governance principles and functions. It represents the overall standing of each LGU as far as satisfying EcoGov Project-set standards on best practices in environmental governance is concerned.

Improvement is clearly indicated by the movement of the indices to the higher range categories as depicted in the frequency table below. This is also indicated by the higher values of the lower and upper ends of each range as well as the mean indices of the LGUs in all four provinces, as compared to the baseline figures. The greatest stride was displayed by Quirino LGUs, whose mean indices almost doubled and where 80% of those assessed entered the range 0.76 and up by 2007.

Interestingly as mentioned above, the Quirino LGUs as a whole budgeted the least for the environment from their 20% DF in 2006-2007 as compared with LGUs from the other provinces. What this might imply is that LGUs in this province seem to be more efficient in their disbursements, producing more output (environmental governance improvement) per unit of budget input. While the Aurora LGUs as a whole seemed to progress the slowest pace compared with LGUs from the other provinces, the improvement in the range of individual indices of from 0.53-0.79 during the baseline to 0.60-0.86 during the midterm assessment clearly indicates a positive trend. It should be noted that except for one landlocked municipality, all Aurora municipalities are faced with a need to take care of and allocate resources for three environment sectors: forest, coastal and urban environment.

Range of Over-all Indices	**N. Vizcaya** Baseline: 0.33-0.60 MT: 0.60-0.78		**Aurora** Baseline: :0.53-0.79 MT:0.60-0.86		**Quirino** Baseline: 0.28-0.60 MT: 0.65-0.88		**Isabela** Baseline: 0.72-0.80 MT: 1.00		**All LGUs** Baseline: 0.28-0.80 MT: 0.60-1.00	
	BL[2]	MT[3]	BL	MT	BL	MT	BL	MT	BL	MT
0.00-0.25	0	0	0	0	0	0	0	0	0 (0%)	0 (0%)
0.26-0.50	3	0	0	0	4	0	0	0	7 (37%)	0 (0%)
0.51-0.75	4	7	4	4	1	1	1	0	10 (53%)	12 (63%)
0.76-1.00	0	1	1	1	0	4	1	1	2 (10%)	7 (37%)
Mean Over-all Index	**0.48**	**0.71**	**0.63**	**0.72**	**0.42**	**0.82**	**0.80**	**1.00**	**0.63**	**0.76**

Observed improvement in the over-all indices is generally a result of improved performance in all sectors as shown in the summary below. As a whole, Nueva Viscaya

[2] Acronym for Baseline
[3] Acronym for Midterm

LGUs performed best in UEM and LIM but has to work harder in terms of FFM. Aurora LGUs' best performing sector was CRM. They also exhibited progress in UEM but their over-all indices were generally pulled down by slight deterioration in FFM. Among the 19 LGUs, those in Quirino performed best in FFM. The LGUs in this province did well also in UEM and showed marked improvement in their LIM indices, thus, their greatly elevated over-all indices.

Sector	Nueva Viscaya (18 LGUs)		Aurora (5 LGUs)		Quirino (5 LGUs)		Isabela (1 LGU)		All LGUs (19)	
	BL	MT	BL	MT	BL	MT	BL	MT	BL	MT
FFM	0.26	0.50	0.52	0.49	0.41	0.85	N/A	N/A	0.37	0.60
CRM	N/A	N/A	0.82	0.94	N/A	N/A	N/A	N/A	0.82	0.94
UEM	0.56	0.84	0.56	0.73	0.41	0.81	0.81	1.00	0.53	0.81
LIM	0.68	0.85	0.67	0.78	0.42	0.78	0.78	1.00	0.62	0.81
Cross-Sector	**0.48**	**0.71**	**0.63**	**0.72**	**0.42**	**0.82**	**0.80**	**1.00**	**0.52**	**0.76**

Table 7 shows how each LGU performed by function and by principle across all pertinent sectors. The over-all indices by function measure the degree of LGU adoption of 'best practices' in planning and plan implementation, law enforcement, permitting/ licensing/tenure issuance, budgeting, bidding and procurement, and other cross-cutting functions across all applicable sectors (FFM, CRM, UEM, LIM). The over-all indices by principle aggregate FTAP indices of LGUs across all sectors and functions (e.g., planning, law enforcement, etc). These types of indices can help identify in which over-all function or principle the LGU is already doing well or needs to improve further.

Based on the indices, Nueva Vizcaya LGUs, on average, underperformed in public participation. LGUs in Aurora though generally weak in accountability and public participation, were as a whole very transparent. Quirino LGUs generally need to improve in terms of accountability principle.

Accountability measures an LGU's adoption of best practice of formally designating person, office or bodies with clear roles and responsibilities on FFM. This practice is important since this not only requires that a person, office, or multisectoral body gets assigned to carry out sector activities. This also warrants that the specific areas of responsibility get clarified and delineated, and how each can be held accountable over performance or non-performance is clear.

In terms of governance function, all provinces generally performed well in permitting, licensing and tenure issuance; bidding, contracting and procurement. They were, however, commonly weak in law enforcement. Both Nueva Vizcaya and Aurora LGUs have to improve their adoption of measures relating to planning and plan implementation.

Improvement in index category was noticed for majority of the LGUs across all four provinces. The data below shows that more than half of the LGUs have entered the highest category (Category 1-Well performing) compared to only 10% during the baseline assessment. Moreover, from six during the baseline assessment, no more LGU

fell under Category 3 (with generally low indices). The mean index in all categories also rose.

The specific indices and categories of the 19 LGUs during the baseline and mid-term assessment are presented in **Table 8.** It should be noted that Cauayan City attained the ideal over-all index of 1.0, and became one of only two LGUs out of the total of 91 LGUs that self-assessed to first achieve a perfect index.

LGU Category	Number and % of LGUs Mean Over-all Index	
	Baseline	Midterm
1-Well Performing	2 (10%) 0.80	11 (58%) 0.83
2- Median	8 (42%) 0.54	3 (16%) 0.78
3- With Generally Low Indices	6 (32%) 0.34	0 (0%)
4- Overspecializing	3 (16%) 0.60	5 (26%) 0.66
Average Over-all Index	**0.51**	**0.76**

9.4 Forest Sector Indices

Table 8 presents the indices obtained by Northern Luzon LGUs in forest and forestland management during the midterm assessment. Eight kinds of indices were computed to dissect how each LGU fared in terms of governance principles, functions and the over-all FFM index. The data are presented by province and in decreasing order to be able to spot easily which LGUs need to work further to improve their FFM performance.

Eight of the 18 LGUs that underwent assessment on FFM registered an index greater than 0.80. These include all five Quirino, one Aurora, and two Nueva Vizcaya municipalities. Performance in FFM seems positively correlated with the presence of sufficient budget and EcoGov technical assistance, as shown by the greatly improved performance in this sector by the LGUs in Quirino province. The names of these well-performing LGUs are highlighted in Table 8.

Of particular concern are five LGUs (Bayombong, Solano, Bagabag, San Luis, Dipaculao) that registered lower than 0.38 FFM index and categorized as poor performers. Bagabag's FFM index even declined from the baseline status. Except for Bayombong which allocated P10,000 a year (or P5/ha) over the last two years for FFM, these LGUs did not allocate any funds for FFM over the last two years. It should be noted also that all three poorly performing LGUs in Nueva Vizcaya received no technical assistance on FFM from EcoGov. The other poorly performing LGUs- San Luis and Dipaculao were better off because they have been receiving indirect technical assistance since 2006 from EcoGov through the so-called 'upscaling strategy' led by the provincial government.

As a whole, the LGUs were generally performing strongly in terms of accountability principle. This means that most of them have officially designated offices/bodies with clear roles and accountability on FFM. Except for the Quirino LGUs, they were on average, weak in public participation, transparency and functionality.

In terms of governance functions, the area that appears to need most attention was law enforcement. Six out of the 19 LGUs have not adopted any of the four 'best practices'

indicators, perhaps indicating a need for outside assistance in this governance function. While many LGUs have deployed forest guards and law enforcement teams, the GSA participants were generally not satisfied with their performance, citing unbridled illegal forest utilization and encroachment upon critical forestlands.

9.5 Coastal Sector Indices

All of the four LGUs that underwent midterm assessment performed well in CRM (**Table 9**). Dinalungan and Baler sustained their baseline 1.00 indices while Dipaculao and San Luis adopted more 'best practices' resulting in much higher mid-term index. Common areas for improvement in the latter two LGUs are functionality and planning and plan implementation. Additionally, Baler has to give more attention to public participation and coastal law enforcement.

9.6 Urban Sector Indices

The LGUs generally performed well in urban environmental management (**Table 10**). More than 60% (12) of those assessed in this sector registered indices of 0.81 and up. The four LGUs who relatively underperformed but nevertheless showed improvement over the baseline peformance are: Quezon (0.63), Dipaculao (0.63), San Luis (0.63), and Aglipay (0.50). The LGUs generally performed better in accountability and transparency in terms of governance principles and in planning and plan implementation and permitting in terms of governance functions. As with FFM, they performed weakest in law enforcement.

9.7 LGU Internal Management Indices

All 19 LGUs unanimously improved their indices on internal management (LIM) practices **(Table 11).** Five LGUs (Cauayan City, San Luis, Dupax Norte, Bambang and Bayombong) achieved 1.00 in this sector. They can serve as models for other LGUs, particularly for the five LGUs (Quezon, Dupax Sur, Dinalungan, Dipaculao, Aglipay) that registered relatively low indices of below 0.67.

Accountability was generally the weakest point of the LGUs, particularly among those in Quirino province. The other governance principle that generally pulled down the over-all indices on LIM was public participation. While most of the LGUs already have in place a system for budgeting, procurement, and database management, they have to be more participatory in approach. They also need to improve the accountability of officials, staff, working groups, bodies and committees tasked with environment and internal-management related functions by implementing a system for continually monitoring and evaluating their performance and for rewarding good performance (e.g. through incentives, award of recognition).

9.8 Adoption of Higher Level 'Best Practices"

The LGUs did not only improve quantitatively in terms of the number of best practices adopted (and hence higher indices). Many, particularly the well-performing LGUs, were also able to improve the depth and quality of their performance. The latter means that a particular LGU went beyond the basic indicators of 'best practices', by adopting deeper or more substantive practices, or, widening the geographic reach or number of beneficiaries or partners in the implementation of these practices. Table 12-14 enumerates these 'improvements' and the names of LGUs practicing them.

In FFM, most common 'improvements' include practices related to planning, institutional collaboration, and forest production and investment. Less frequently cited improvements were in the areas of M&E, conflict management, incentives, and law enforcement. In CRM, 'improvements' were commonly in the areas of inter-LGU collaborations/ networking, law enforcement, and permitting and licensing. Fewer LGUs reported improvement in the area of habitat rehabilitation, implementation of CRM zones, integrated CRM, user's fee collection, trust fund, and conflict management. Among the three sectors of FFM, CRM and UEM, it is in the latter that relatively fewer LGUs registered 'improved' practices.

Commonly cited 'improved' practices in UEM concern expanded composting, creation/designation of permanent office/officer for SWM, greater role of barangay Solid Waste Management Committees (SWMCs), enhanced multi-sectoral collaborations, and wider coverage of waste segregation. The areas in which fewer LGUs reported 'improvement' in UEM include law enforcement, wastewater management, better waste collection vehicle/equipment, construction of law-compliant disposal facility (appropriate sanitary landfill facility), toxic and hazardous waste management and M&E. Except for law enforcement and M&E, these are initiatives that need higher expenditures of monetary resources and higher level of technical expertise. These are also the areas where LGUs need outside technical and financial assistance the most.

The number of LGUs that adopted best practices relating to institutional and multisectoral collaborations and networking has increased in all sectors, a trend that can be attributed to EcoGov emphasis on inter-LGU and institutional partnerships and the 'scaling up' strategy for promoting technical strategies with the provincial government.

9.9 Anecdotes on Results/Outcomes of Good Governance

GSA key informants in some LGUs shared anecdotes about benefits experienced by their LGUs because of improved governance of forest, coastal and solid and liquid waste management (Table 15). In the case of FFM, key informants perceived improved forest cover, biodiversity and revenue generation in their localities. Reduction of destructive and illegal fishing, recovery of fishery resource and cleaner coastal areas were said to be experienced in all four coastal municipalities. In UEM, 8 LGUs have received awards related to cleanliness of the environment. All these good results served to inspire them more to excel in environmental governance.

9.10 Deteriorations in Best Practices

While the midterm assessment revealed over-all improvement in LGU performance, several LGUs reported deteriorations in certain aspects of FFM, CRM and UEM (Table 16).

In FFM, gaps in law enforcement, lack of alternative livelihood, financial and technical constraints, diminished functionality of management bodies/offices, low awareness on environment, and political conflicts and interference were blamed for continued decline of forest resources, conversion of natural forests to non-forest uses, uncontrolled entry of forestland settlers even in tenured areas, particularly in Aurora Province. In Maria Aurora the failure to finalize the FLUP was said to be caused by disagreements on certain provisions of the proposed plan between the TA group and the PENRO. According to FGD participants, the change in political leadership and suspension of some LGU officials affected the sustainability of FFM activities in Dipaculao. Dipaculao failed to designate a point person or office for FFM because of the lingering LGU belief that FFM is DENR's main responsibility.

In CRM, 'deteriorations' experienced include failure to implement planned activities, non-functional BFARMC and MFARMC, and degradation of coastal habitats. Cited reasons ranged from LGU financial constraints; lack of incentives, poor understanding of roles and responsibilities and lack of capability-building (in the case of management bodies); economic hardship on the part of communities, and natural causes (in the case of sedimentation problem that destroyed coral reefs). The failure to effectively enforce ordinances due to weak political will, unsustained functionality of waste management body, and failure to sustain the implementation of activities due to financial constraints were among the 'deteriorations' cited in the area of UEM.

Lost or diminished functionality of management bodies/office in-charge was largely blamed for their failure to sustain key tasks such as planning, implementation of annual workplan, law enforcement, and IEC in all three sectors. The TWGs in Dipaculao and Maria Aurora became non-functional because of two or more of the following reasons: the members became busy with other concerns and their priorities shifted, lack of required technical expertise, quorum was hard to achieve because of the size of the management body, and their interest waned (ningas kugon) due to lack of proper motivation (e.g., transport allowance for MFARMC members) and recognition. In Quezon, the MSWMB stopped functioning after its budget support from the municipality stopped due to financial constraints. In addition, the proposed ISWM Coordinator position in this LGU was not filled when political leadership changed. In Dipaculao, patrolling activity of the Bantay Dagat was affected by lack of fuel support. These observations have important implications in terms of criteria for selection of membership in LGU formed multisectoral organizations, their preparedness for their roles, clear delineation of their accountabilities, incentives for their performance, and institutional support (i.e., budget).

LGUs in Northern Luzon experienced no decline in their mid-term over-all indices. All UEM indices consistently improved except that for Dinalungan which was sustained at 0.75. The same observation holds true for CRM, but the FFM indices of three LGUs (Bagabag- from 0.20 to 0.07, Baler from 0.67 to 0.60, and Dipaculao- 0.40 to 0.07) weakened.

Table 4. Summary profile of LGUS surveyed in Northern Luzon

LGU	Total Pop'n (2000)	Urban Pop'n (year)	Number of Barangays		Total Land Area (ha)	Pop'n Density pax /ha) 'n in 2000)	Forestland (ha; % of total land area)	Terrestrial Protected Area	Coast (km)	MPA	Income Class	Major Economic Activity With Bearing on Envt.	Ave. IRA (million pesos 2006-07) (Fig in parenthesis is 20%DF)	Ave. Env't Share in 20% DF (million pesos, 2006-07) (%)
			Total	Urban										
NUEVA VIZCAYA:														
Bayombong	50,563	23,642 (2005)	25	8	16,195	3.1	9,154 (56%)	Portions of Bangan Hill, Barrobob Watershed	NA	NA	2nd	Agriculture	43.2 (8.6)	3.4 (39%)
Solano	52,391	30,620 (2005)	22	6	13,980	3.7	3,740 (27%)	None	NA	NA	1st	Farming	50.1 (10.0)	1.0 (10%)
Bagabag	30,652	7,100 (2000)	17	4	16,627	1.8	8,204 (49%)	Portion of Lower Magat Forest Reserve	NA	NA	3rd	Farming	37.6 (7.5)	1.2 (16%)
Dupax Sur	16,371	5,941	19	4	37,864	0.4	32,000 (84%)	Casecnan Protected Landscape (CPL); Dupax Sur Watershed Forest Reserve (WFR)	NA	NA	3rd	Farming	47.4 (9.5)	1.7 (18%)
Dupax del Norte	23,196	7,262 (2005)	15	2	34,960	0.7	23,942 (68%)	CPL	NA	NA	3rd	Farming	40. 7 (8.1)	1.0 (12%)
Quezon	15,986	1,059 (2000)	12	1	23,349	0.7	18,292 (78%)	None	NA	NA	4th	Farming, small-scale mining	29.9 (6.0)	0.5 (8%)
Bambang	41,393	14,775 (2007)	25	4	34,500	1.2	15,329 (44%)	Salinas Saltspring	NA	NA	3rd	Agriculture, agribusiness,quarrying	47.2 (9.4)	0.7 (7%)
Aritao	31,705	9,255 (2006)	22	3	40,415	0.8	28,003 (69%)	None	NA	NA	2nd	Farming	50.4 (10.0)	0.7 (7%)
AURORA														
Baler	29,923	4,154 (2005)	13	5	9,225	3.2	4,579 (50%)	3 (2,905)- Aurora WFR (413 has.); Dibudalan WFR (1,341 has.); Dibalo-Pingit-Zabali-Malayat WFR (1,151 has.)	33	53 ha	3rd	Farming, fishing	32.9 (6.6)	0.9 (14%)
Dipaculao	23,064	5,183	25	3	40,497	0.6	26,174 (65%)	2 - (5,173 ha.) Dipaculao WFR (1,786 ha); Dinadiawan River Watershed Reserve (WR) (3,3786 ha)	46	54 ha	3rd	Fishing, farming	41.5 (8.3)	1.2 (14%)

LGU	Total Pop'n (2000)	Urban Pop'n (year)	Number of Barangays		Total Land Area (ha)	Pop'n Density pax /ha) 'n in 2000)	Forestland (ha; % of total land area)	Terrestrial Protected Area	Coast (km)	MPA	Income Class	Major Economic Activity With Bearing on Envt.	Ave. IRA (million pesos 2006-07) (Fig in parenthesis is 20%DF)	Ave. Env't Share in 20% DF (million pesos, 2006-07) (%)
Dinalungan	9,711	0	9	0	34,000	0.3	22,396 (66%)	1 (6,779 ha)	27	48 ha	4th	Fishing, upland farming	27.1 (5.4)	0.6 (12%)
San Luis	21,256	2,933 (2005)	18	4	62,068	0.3	53,444 (86%)	2 (15,759.35) - San Luis WFR Reserve; portions of Diteki River WFR	94	2 (34.96 & 15.28)	3rd	Farming, Fishing, Cottage Industries	54.6 (10.9)	0.1 (0.9%)
Maria Aurora	33,551	14,086 (2006)	40	9	42,619	0.8	27,787 (65%)	4 (13,779.14) Pacugao WR (3,247 ha), Diaat River WFR (3,219.14), Bazal River WFR (4,403 ha), Aurora Memorial National Park (2,910 ha)	NA	NA	3rd	Farming	52.9 (10.6)	1.6 (15%)
QUIRINO														
Diffun	39,489	9,940 (2006)	33	4	30,618	1.3	19,506 (64%)	1 (4351.33 has.) portion of Quirino Protected Landscape (QPL)	NA	NA	2nd	Farming	46.7 (9.3)	0.4 (4%)
Nagtipunan	17,027	2,552 (2007)	29 (13 contested)	1	160,740	0.1	103,348 (64%)	2 (122,830) (CPL- 16,475; QPL-106,355.5)	NA	NA	1st	Kaingin, logging farming	96.5 (19.3)	0.8 (4%)
Maddela	32,236	4,713 (2000)	28	4	75,732	0.4	59,292 (78%)	1 (47,592.76 has) portion of QPL	NA	NA	1st	Upland farming; banana plantation	74.2 (14.8)	0.9 (6%)
Aglipay	21,774	3,147 (2000)	25	2	30,018	0.7	13,622 (45%)	1 (9,490.70 has) portion of QPL	NA	NA	4th	Farming, furniture making	38.2 (7.6)	0.1 (1%)
Cabarroguis	25,832	11,440 (2006)	17	4	26,902	1.0	7,084 (26%)	1 (2,417.37 has) portion of QPL	NA	NA	4th	Farming, furniture making	35.0 (7)	0.3 (4%)
ISABELA														
Cauayan City	103,952	48,814 (2005)	65	9	33,640	3.0	22,396 (67%)	None	NA	NA	1st	Farming	257.7 (51.5)	4.7 (9%)

Table 5. Average yearly budget allocated by Northern Luzon LGUs on FFM, CRM and UEM in 2006-2007

LGU	Average Annual FFM Budget (million Php)	Average Annual CRM Budget (million Php)	Average Annual UEM Budget (million Php)	FFM* (Php/ ha/y)	CRM** (Php /km/yr)	UEM*** (Php/ person/yr)
Nueva Vizcaya						
Bambang	0	N/A	0.70	0 (3.3)	N/A	15.5 (6.4)
Dupax del Norte	0	N/A	0.96	0 (5.9)	N/A	36 (12.7)
Bayombong	0.01	N/A	3.42	1 (5.5)	N/A	56.5 (26.8)
Solano	0	N/A	1.00	0 (14.7)	N/A	17 (7.5)
Bagabag	0	N/A	1.25	0 (nd)	N/A	41 (9)
Quezon	0.45	N/A	0.09	24.5 (nd)	N/A	5.5 (3.12)
Aritao	0.10	N/A	0.61	3.5 (nd)	N/A	17.5 (nd)
Dupax del Sur	0.59	N/A	1.10	18.5 (11)	N/A	55 (13.4)
Aurora						
Dinalungan	0.42	0.15	0.87	18.5 (nd)	10,864 (6,964)	8.5 (18.5)
Baler	0.10	0.14	0.44	22 (19.7)	8,182 (3,409)	13 (6.3)
San Luis	0.02	0.05	0.05	0.5 (1.7)	1,064 (9,157)	2 (10.0)
Maria Aurora	0.04	N/A	1.58	1.5 (3.9)	N/A	42 (13.4)
Dipaculao	0.22	0.30	0.68	8.5 (nd)	12,987 (4,545)	27 (28.2)
Quirino						
Diffun	0.17	N/A	0.20	8.5 (1.3)	N/A	4.5 (4.7)
Aglipay	0.06	N/A	0.08	7 (3.7)	N/A	4 (2.1)
Cabarroguis	0.16	N/A	1.20	22.5 (1.2)	N/A	44.5 (15.2)
Nagtipunan	0.67	N/A	0.14	6.5 (3.9)	N/A	6 (7.7)
Maddela	0.10	N/A	0.80	1.5 (7.9)	N/A	25 (14.8)
Isabela						
Cauayan City	0	N/A	3.15	0 (0)	N/A	2.5 (32.9)

* average of 2006 and 2007 budget divided by the size of forestland (in ha), figure in parenthesis is for 2004-2005

** average of 2006-2007 budget divided by the length (in km) of coastline, figure in parenthesis is for 2004-2005

*** average of 2006-2007 budget divided by the latest population, figure in parenthesis is for 2004-2005

Table 6. Summary Mid-term Environmental Governance Indices for Northern Luzon

Province & Municipality	By Specific Sector				By Governance Principle, Across Sectors				By Governance Function, Across Sectors						Overall
	FFM	*CRM*	*UEM*	*LIM*	*F*	*T*	*A*	*P*	*Planning/ Implem.*	*Law Enforcement*	*Permitting/ licensing*	*Budge-ting*	*Bidding, Contracting Procurement*	*Cross-cutting*	LGU Index
NUEVA VIZCAYA:															
Bayombong	0.27	N/A	1.00	1.00	0.68	0.50	1.00	0.71	0.63	0.50	1.00	1.00	1.00	1.00	**0.73**
Solano	0.27	N/A	0.88	0.89	0.68	0.71	0.75	0.43	0.74	0.25	1.00	1.00	1.00	0.57	**0.65**
Bagabag	0.07	N/A	0.94	0.89	0.55	0.71	0.75	0.57	0.53	0.50	1.00	0.50	1.00	0.71	**0.60**
Dupax Sur	0.87	N/A	0.81	0.44	0.86	0.71	0.50	0.57	0.84	0.75	1.00	1.00	0.67	0.43	**0.75**
Dupax del Norte	0.53	N/A	0.81	1.00	0.68	1.00	0.67	0.57	0.74	0.50	1.00	1.00	0.67	0.71	**0.70**
Quezon	0.87	N/A	0.56	0.56	0.73	1.00	0.50	0.43	0.74	0.50	0.50	1.00	0.67	0.71	**0.70**
Bambang	0.40	N/A	0.94	1.00	0.77	0.71	0.75	0.71	0.68	0.63	1.00	1.00	1.00	0.90	**0.75**
Aritao	0.73	N/A	0.75	0.89	0.73	0.86	1.00	1.00	0.84	0.38	1.00	1.00	0.67	1.00	**0.78**
Mean	0.50	N/A	0.84	0.83	0.71	0.78	0.74	0.62	0.72	0.50	0.94	0.94	0.84	0.75	**0.71**
AURORA:															
Baler	0.60	0.82	0.81	0.78	0.78	1.00	0.60	0.50	0.79	0.58	1.00	1.00	0.67	0.78	**0.75**
Dipaculao	0.07	1.00	0.63	0.67	0.59	0.80	0.40	0.50	0.61	0.42	1.00	1.00	0.67	0.56	**0.60**
Dinalungan	0.93	1.00	0.75	0.67	0.84	1.00	0.60	0.90	0.82	1.00	1.00	1.00	0.67	0.78	**0.86**
San Luis	0.33	0.94	0.56	1.00	0.69	0.80	0.80	0.50	0.64	0.42	1.00	1.00	1.00	0.89	**0.68**
Maria Aurora	0.53	NA	0.81	0.78	0.68	0.86	0.50	0.71	0.84	0.25	1.00	1.00	1.00	0.57	**0.70**
Mean	0.49	0.94	0.72	0.78	0.72	0.89	0.58	0.62	0.74	0.53	1.00	1.00	0.80	0.72	**0.72**
QUIRINO:															
Diffun	0.93	NA	0.94	0.78	0.91	0.86	0.50	1.00	0.95	0.75	1.00	1.00	1.00	0.71	**0.88**
Nagtipunan	0.80	NA	0.81	0.78	0.77	0.86	0.50	1.00	0.89	0.50	1.00	1.00	1.00	0.71	**0.80**
Maddela	0.80	NA	0.94	0.89	0.86	1.00	0.75	0.86	0.95	0.63	1.00	1.00	1.00	0.86	**0.88**
Aglipay	0.80	NA	0.50	0.67	0.77	0.57	0.29	0.43	0.84	0.13	1.00	1.00	0.67	0.57	**0.65**
Cabarroguis	0.93	NA	0.88	0.78	0.91	0.86	0.50	1.00	0.95	0.75	1.00	1.00	1.00	0.71	**0.88**
Mean	0.85	NA	0.81	0.78	0.84	0.83	0.51	0.86	0.92	0.55	1.00	1.00	0.93	0.71	**0.82**
ISABELA:															
Cauayan City	NA	NA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**

Table 7. Comparison of baseline and mid-term GSA results, Northern Luzon LGUs

Province	Indices										Change in LGU Category
	FFM		CRM		UEM		Internal Management		Over-all		
	Base Line	Mid-term	Base Line	Mid-term	Base line	Mid-Term	Base Line	Mid-Term	Base line	Mid-term	
Nueva Vizcaya (8)											
Bayombong	0.13	0.27	NA	NA	0.88	1.00	0.78	1.00	0.58	0.73	C4 to C4
Solano	0.27	0.27	NA	NA	0.69	0.88	0.67	0.89	0.53	0.65	C2 to C4
Bagabag	0.20	0.07	NA	NA	0.38	0.94	0.67	0.89	0.38	0.60	C3 to C4
Dupax Sur	0.20	0.87	NA	NA	0.25	0.81	0.67	0.44	0.33	0.75	C3 to C1
Dupax del Norte	0.47	0.53	NA	NA	0.56	0.81	0.78	1.00	0.58	0.75	C2 to C1
Quezon	0.27	0.87	NA	NA	0.31	0.56	0.44	0.56	0.33	0.67	C3 to C2
Bambang	0.20	0.40	NA	NA	0.88	0.94	0.78	1.00	0.60	0.75	C4 to C1
Aritao	0.33	0.73	NA	NA	0.50	0.75	0.67	0.89	0.48	0.78	C2 to C1
Mean	**0.26**	**0.50**	**NA**	**NA**	**0.56**	**0.84**	**0.68**	**0.83**	**0.48**	**0.71**	
Aurora (5)											
Baler	0.67	0.60	0.82	0.82	0.50	0.81	0.67	0.78	0.67	0.75	C2 to C1
Dipaculao	0.40	0.07	0.65	1.00	0.44	0.63	0.67	0.67	0.53	0.60	C2 to C4
Dinalungan	0.71	0.93	1.00	1.00	0.75	0.75	0.56	0.67	0.79	0.86	C1 to C1
San Luis	0.33	0.33	0.82	0.94	0.50	0.56	0.89	1.00	0.61	0.68	C4 to C4
Maria Aurora	0.47	0.53	NA	NA	0.63	0.81	0.56	0.78	0.55	0.70	C2 to C2
Mean	**0.52**	**0.49**	**0.82**	**0.94**	**0.56**	**0.71**	**0.67**	**0.78**	**0.63**	**0.72**	
Quirino (5)											
Diffun	0.47	0.93	NA	NA	0.75	0.94	0.56	0.78	0.60	0.88	C2 to C1
Nagtipunan	0.33	0.80	NA	NA	0.38	0.81	0.22	0.78	0.33	0.80	C3 to C1
Maddela	0.07	0.80	NA	NA	0.25	0.94	0.67	0.89	0.28	0.88	C3 to C1
Aglipay	0.60	0.80	NA	NA	0.25	0.50	0.22	0.67	0.38	0.65	C3 to C2
Cabarroguis	0.60	0.93	NA	NA	0.44	0.88	0.44	0.78	0.50	0.88	C2 to C1
Mean	**0.41**	**0.85**	**NA**	**NA**	**0.41**	**0.81**	**0.42**	**0.78**	**0.42**	**0.82**	
Isabela (1)											
Cauayan City	NA	NA	NA	NA	0.81	1.00	0.78	1.00	0.80	1.00	C1 to C1
Over-All Mean	**0.37**	**0.60**	**0.82**	**0.94**	**0.53**	**0.81**	**0.62**	**0.81**	**0.52**	**0.76**	

Table 8. Forest sector specific indices of Northern Luzon LGUs

Province/LGU	F	T	A	P	Planning	Law Enfo.	Cross-cutting	FFM Index
Nueva Vizcaya								
Dupax Sur	1.00	1.00	1.00	0.33	0.89	0.75	0.67	**0.87**
Quezon	0.89	1.00	1.00	0.67	0.89	0.75	1.00	**0.87**
Aritao	0.67	0.50	1.00	1.00	0.89	0.25	1.00	**0.73**
Dupax del Norte	0.44	0.50	1.00	0.67	0.56	0.50	0.50	**0.53**
Bambang	0.56	0.00	0.00	0.33	0.44	0.25	0.50	**0.40**
Bayombong	0.22	0.00	1.00	0.33	0.22	0.00	1.00	**0.27**
Solano	0.33	0.00	1.00	0.00	0.44	0.00	0.00	**0.27**
Bagabag	0.11	0.00	0.00	0.00	0.11	0.00	0.00	**0.07**
Mean	**0.53**	**0.38**	**0.75**	**0.42**	**0.56**	**0.31**	**0.58**	**0.50**
Aurora								
Dinalungan	0.89	1.00	1.00	1.00	0.89	1.00	1.00	**0.93**
Baler	0.56	1.00	1.00	0.33	0.67	0.50	0.50	**0.60**
Maria Aurora	0.44	0.50	1.00	0.67	0.78	0.00	0.50	**0.53**
San Luis	0.56	0.00	0.00	0.00	0.44	0.00	0.50	**0.33**
Dipaculao	0.11	0.00	0.00	0.00	0.11	0.00	0.00	**0.07**
Mean	**0.51**	**0.50**	**0.60**	**0.40**	**0.58**	**0.30**	**0.50**	**0.49**
Quirino								
Diffun	0.89	0.50	1.00	1.00	1.00	0.50	1.00	**0.93**
Cabarroguis	1.00	0.50	1.00	1.00	1.00	0.75	1.00	**0.93**
Nagtipunan	0.78	0.50	1.00	1.00	1.00	0.25	1.00	**0.80**
Maddela	0.78	1.00	1.00	0.67	1.00	0.25	1.00	**0.80**
Aglipay	0.78	0.50	1.00	1.00	1.00	0.25	1.00	**0.80**
Mean	**0.85**	**0.60**	**1.00**	**0.93**	**1.00**	**0.40**	**1.00**	**0.85**
Isabela								
Cauayan City	NA	NA	NA	NA	NA	NA	NA	NA

Table 9. CRM sector specific indices of Northern Luzon LGUs

Province/LGU	F	T	A	P	Planning	Law Enfo.	Permit /license issuance	Cross-cutting	CRM Index
Nueva Vizcaya	**Not Applicable**								
Aurora									
Dipaculao	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dinalungan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Luis	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
Baler	0.89	1.00	1.00	0.67	0.89	0.50	1.00	1.00	**0.82**
Maria Aurora	**Not Applicable**								
Mean	***0.95***	***1.00***	***1.00***	***0.92***	***0.94***	***0.88***	***1.00***	***1.00***	***0.94***
Quirino	**Not Applicable**								
Isabela									
Cauayan City	**Not Applicable**								

Table 10. UEM sector specific indices of Northern Luzon LGUs

LGU	F	T	A	P	Planning	Law Enfo.	Permit /license issuance	Cross-cutting	UEM Index
Nueva Vizcaya									
Bayombong	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bagabag	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Bambang	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Solano	0.90	1.00	1.00	*0.67*	1.00	0.50	1.00	1.00	**0.88**
Dupax Sur	0.70	1.00	1.00	1.00	0.80	0.75	1.00	1.00	**0.81**
Dupax del Norte	0.80	1.00	1.00	0.67	0.90	0.50	1.00	1.00	**0.81**
Aritao	0.70	1.00	1.00	0.67	0.80	0.50	1.00	1.00	**0.75**
Quezon	0.50	1.00	1.00	0.33	0.60	0.25	1.00	1.00	**0.56**
Mean	***0.80***	***1.00***	***1.00***	***0.79***	***0.86***	***0.69***	***1.00***	***1.00***	**0.84**
Aurora									
Baler	0.80	1.00	1.00	0.67	0.80	0.75	1.00	1.00	**0.81**
Maria Aurora	0.80	1.00	1.00	0.67	0.90	0.50	1.00	1.00	**0.81**
Dinalungan	0.60	1.00	1.00	1.00	0.60	1.00	1.00	1.00	**0.75**
Dipaculao	0.50	1.00	1.00	0.67	0.70	0.25	1.00	1.00	**0.63**
San Luis	0.50	1.00	1.00	0.33	0.60	0.25	1.00	1.00	**0.56**
Mean	***0.66***	***1.00***	***1.00***	***0.67***	***0.74***	***0.57***	***1.00***	***1.00***	**0.73**
Quirino									
Diffun	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Maddela	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Cabarroguis	0.80	1.00	1.00	1.00	0.90	0.75	1.00	1.00	**0.88**
Nagtipunan	0.70	1.00	1.00	1.00	0.80	0.75	1.00	1.00	**0.81**
Aglipay	0.70	0.00	1.00	0.00	0.70	0.00	1.00	0.00	**0.50**
Mean	***0.80***	***0.80***	***1.00***	***0.80***	***0.84***	***0.70***	***1.00***	***0.80***	**0.81**
Isabela									
Cauayan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**

Table 11. LIM indices of Northern Luzon LGUs

Province/LGU	F	T	A	P	Budgeting	Contracting Bidding Procurement	Cross-cutting	LIM Index
Nueva Vizcaya								
Dupax del Norte	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bambang	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bayombong	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Aritao	1.00	1.00	1.00	0.00	1.00	0.67	1.00	**0.89**
Solano	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Bagabag	0.67	1.00	1.00	1.00	0.50	1.00	1.00	**0.89**
Quezon	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Dupax Sur	1.00	0.33	0.00	0.00	1.00	0.67	0.00	**0.44**
Mean	***0.96***	***0.92***	***0.69***	***0.63***	***0.94***	***0.88***	***0.78***	**0.85**
Aurora								
San Luis	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Baler	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Maria Aurora	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Dinalungan	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Dipaculao	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Mean	***1.00***	***1.00***	***0.30***	***0.40***	***1.00***	***0.80***	***0.65***	**0.78**
Quirino								
Maddela	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Cabarroguis	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Diffun	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Nagtipunan	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Aglipay	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Mean	***1.00***	***1.00***	***0.10***	***0.80***	***1.00***	***0.93***	***0.55***	**0.78**
Isabela								
Cauayan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**

Table 12. Improved/Higher level practices on FFM of LGUs in Northern Luzon

Higher Level Practices	LGUs with these practices	Frequency (% of total LGUS)
Completed tenure assessment and used results as basis in implementing FLUP	Aritao, Bambang, Dupax Sur, Quezon, Aglipay, Cabarroguis, Diffun, Nagtipunan, Baler	9 (50%)
Implemented regular M&E of plan implementation	Aglipay, Diffun, Nagtipunan	3 (17%)
Vigorously pursued forest management plan implementation by providing regular/sufficient manpower and increased budget	Aritao, Dupax Norte, Dupax Sur, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Dinalungan	10 (56%)
Created/designated permanent office like MENRO with budget and manpower	Aritao, Bambang, Bayombong, Quezon, Diffun, Madella, Nagtipunan, Baler, Dinalungan	9 (50%)
HRD/capability-building/retooling activities conducted for body/office tasked with forest management	Dupax Norte, Quezon, Dupax Sur, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, San Luis	9 (50%)
Recommendations of office/body have always been acted upon favorably/solicited by decision-maker	Dupax Norte, Dupax Sur, Cabarroguis, Diffun, Madella, Nagtipunan, Dinalungan	7 (39%)
Constructed building/office site for management office	Aritao, Nagtipunan	2 (11%)
Integrated FLUP with annual investment plan and/or CLUP	Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Baler	6 (33%)
Formulation/updating/implementation of resource management plan required of community-based tenure instrument, including ADSDPP	Aritao, Bambang, Dupax Norte, Dupax Sur, Quezon, Solano, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Baler	12 (67%)
Facilitated issuance of individual property rights (IPR) in co-managed areas	Aritao, Bambang, Quezon, Diffun, Madella, Nagtipunan	6 (33%)
Enhancement of traditional communal resource management practices	Aritao, Bambang, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, San Luis	9 (50%)

Higher Level Practices	LGUs with these practices	Frequency (% of total LGUS)
Establishment of a functional management structure in tenured areas (with sets of officers)	Aritao, Bambang, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Nagtipunan, Maria Aurora	9 (50%)
Establishment of a conflict management system in tenured areas	Aritao, Bambang, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Baler, Maria Aurora	10 (56%)
Establishment of an operational monitoring and reporting system for tenured areas, including of tenure holder's performance (with DENR) and forest status monitoring	Aritao, Bambang, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Baler	9 (50%)
Establishment of external linkages/networking, implementation of leveraging activities, inter-LGU efforts, MOAs with other groups, such as for law enforcement	Aritao, Bambang, Dupax Sur, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Baler, Dinalungan, Maria Aurora	12 (67%)
Actual apprehension and/or prosecution of violators have taken place	Aritao, Dupax Norte, Dupax Sur, Quezon, Solano, Aglipay, Cabarroguis, Baler, Dinalungan, Maria Aurora	10 (56%)
Activities are underway to place forest lands under productive development, including agroforestry, agri-business, forest plantation, and other upland and forest-based enterprises, providing seed capital, training and other incentives; promotion of forest-based investments	Aritao, Dupax Sur, Quezon, Solano, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, , Dinalungan, Maria Aurora	11 (61%)
Provision of support for non-forest based livelihood/enterprises to community-based tenure holders	Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, San Luis	6 (33%)
Assisting tenure holders enter into production or investment contracts or marketing arrangements	Cabarroguis, Diffun, Madella, Nagtipunan, Maria Aurora	5 (28%)
Investment in appropriate upland technologies, infrastructure and post-harvest facilities	Dupax Sur, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Dinalungan, Maria Aurora	8 (44%)
Enhanced support to collaborations through appointment of point-person and budgetary support, formalized collaborations through MOAs	Aritao, Quezon, Aglipay, Cabarroguis, Diffun, Madella	6 (33%)
Institutionalization/formalization of conflict management process through a resolution/ordinance	Solano, Madella, Baler, Dinalungan	4 (22%)
Establishment of mechanism for enforcing and monitoring the compliance to agreements arrived at in connection with conflict resolution	Bambang, Cabarroguis, Diffun, Madella, Dinalungan	5 (28%)
Budget support for conflict management	Solano, Cabarroguis, Madella, Dinalungan	4 (22%)
Fomulation and implementation of PA/biodiversity management plan	Bambang, Dupax Norte, Dupax Sur, Aglipay, Cabarroguis, Diffun, Nagtipunan	7 (39%)
Increased support to biodiversity through allocation of budget for forest forest rehabilitation/reforestation activities and protection of natural forests/protected areas/protection forest/biodiversity areas	Dinalungan, Dupax Norte, Dupax Sur, Aglipay, Cabarroguis, Diffun	6 (33%)
Improved law enforcement by: increasing yearly budget for law enforcement, procurement of law enforcement equipment and logistics, training/re-tooling of law enforcers, establishment of inter-LGU efforts and external linkages (with PEDO, NAECTAF, etc), including collaborations with tenure holders	Cabarroguis, Diffun, Dupax Sur, Madella, Baler, Dinalungan, Maria Aurora	7 (39%)
Provision of incentives, recognition and rewards for citizen law enforcers	Bambang, Diffun, Nagtipunan, Dinalungan	4 (22%)
Enhanced transparency by: designating point-person or office and increasing budget for information dissemination and IEC; institutionalization of transparency practices; use of more effective popular media; establishment of monitoring and public reporting system	Dupax Sur, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Dinalungan	7 (39%)
Enhanced public participation and community empowerment by organizing, mobilizing, federating groups. formal accreditation, support to CBFM holders, assistance to leveraging activities of POs, NGOs, tenure holder, and other stakeholder groups	Dupax Sur, Quezon, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan, Dinalungan, Maria Aurora	9 (50%)

Table 13. Improved/Higher level practices on CRM of LGUs in Northern Luzon

Sector/Higher Level Practices	LGUs with these practices	Frequency (% of total LGUs)
Detailed annual work program for crm formulated	Baler, Dinalungan, Dipaculao	3 (75%)
Regular budget allocated or increased for plan implementation	Dinalungan, Dipaculao, San Luis	3 (75%)
Regular M&E of plan implementation is in place	Dinalungan, Dipaculao, San Luis	3 (75%)
Financial plan/program is being facilitated/implemented	Dinalungan, Dipaculao, San Luis	3 (75%)
Trust fund created	Dinalungan	1 (25%)
Integrated CRM plan with annual investment plan	Dinalungan	1 (25%)
Institutionalization of conflict management process through an ordinance	Dinalungan	1 (25%)
Livelihood/Alternative livelihood support to fisherfolks	Dinalungan, Dipaculao, San Luis	3 (75%)
Formal designation of trained multisectoral municipal law enforcement unit or deputized officers	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Procurement of patrol boat used in regular patrolling, other law enforcement equipment and logistics, including guardhouse	Baler, Dinalungan, Dipaculao	3 (75%)
Actual apprehensions by citizens' group, imposition of fines/penalties, or filing of cases	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Adoption of formal procedure for reporting violations	Dinalungan, Dipaculao, San Luis	3 (75%)
Increase in budget and manpower for law enforcement	Dinalungan, Dipaculao, San Luis	3 (75%)
Preparation of violations map	Dinalungan, San Luis	2 (50%)
Expansion of rehabilitation activities, e.g., mangrove	Baler	1 (25%)
Implementation of gear regulation or species regulation	Baler, Dinalungan, San Luis	3 (75%)
Release of fries and threatened species into the sea	Dinalungan	1 (25%)
Sustained IEC/social marketing, e.g., on access and tenure, law enforcement	Baler, Dinalungan	2 (50%)
Implementation of the CRM zones ((at least in the fisheries zone and marine sanctuary zone)	Dinalungan	1 (25%)
Implementation of integrated coastal management	Dinalungan	1 (25%)
Establishment of user's fee for marine sanctuary	Dinalungan	1 (25%)
Establishment and operationalization of marine sanctuary/MPA and enforcement of regulations on no fishing in no-take area and regulation of fishing effort outside the no-take area	Dinalungan, San Luis	2 (50%)
Improved permitting system through the inventory/database of and info campaign among permittees, assistance to permittees/licensees to enhance their compliance, refinement of existing fisherfolk registration and licensing system by standardizing with those of nearby LGUs	Baler, Dinalungan, San Luis, Dipaculao	4 (100%)
Sustained/more targeted IEC/social marketing strategies	Dinalungan, Dipaculao, San Luis	3 (75%)
Inter-LGU partnership/ networking with other organizations/agencies in law enforcement, and designation of point person for such collaborations	Baler, Dinalungan, San Luis, Dipaculao	4 (100%)
Inter-LGU fisheries management planning	Baler, Dinalungan, San Luis, Dipaculao	4 (100%)
Networking of MPAs	Dipaculao, San Luis	2 (50%)
Institutionalization of transparency and participatory practices/requirements through an ordinance or working protocols	Baler, Dinalungan	2 (50%)
Designation of point-person or office for information dissemination and IEC	Baler, Dinalungan, San Luis	3 (75%)
Improving the accessibility of information (e.g., record-keeping and archiving and translating information into local vernacular)	San Luis	1 (25%)
Use of more popular media like radio, tv, film	Baler, Dinalungan	2 (50%)

Sector/Higher Level Practices	LGUs with these practices	Frequency (% of total LGUs)
Improved public participation through accreditation of POs, NGOs, and other stakeholder groups	Baler, Dinalungan, Dipaculao	3 (75%)
Institutionalization of public participation requirements through formal documents, ordinance, and working protocols	Baler, Dinalungan	2 (50%)
Establishment of a system for regular communication and feedback with the general public and stakeholders	Dinalungan, Dipaculao, San Luis	3 (75%)
Assistance to empowerment through mobilizing/ formally organizing stakeholders (e.g., formation and accreditation of POs/NGOs)	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Federating/networking POs/NGOs/stakeholder groups	Baler, Dinalungan	2 (50%)
Assisting stakeholder groups in their funds leveraging efforts and implementation of their management plans	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Provision of incentives (e.g., honorarium, insurance) for paralegal/multisectoral law enforcers	Dinalungan, Dipaculao, San Luis	3 (75%)

Table 14. Improved/Higher level practices on UEM of LGUs in Northern Luzon

Sector/Higher Level Practices	LGUs with these practices	Frequency (% of total)
Specific plans such as composting plan, annual SWM workplan prepared/updated consistent with 10 year plan	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	7 (37%)
SWM plan/investments integrated into current municipal development plan/investment plan	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Regular annual budget increased for plan implementation	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Investment in new SWM facility (e.g., MRF, composting, disposal, waste processing)	Bayombong, Dupax Norte, Solano	3 (16%)
Formal creation of a permanent office or formal designation/appointment of a permanent officer (e.g., MENRO) to coordinate, supervise, monitor, and evaluate plan implementation	Aritao, Bagabag, Bambang, Bayombong, Dupax Sur, Quezon, Solano, Cauayan City	8 (42%)
Formal assignment of staff to supervise or manage specific central SWM operations such as composting, MRF, collection, disposal management, enforcement	Aritao, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano	6 (32%)
Creation of more barangay SWM committees	Aritao, Bagabag, Bambang, Bayombong, Dupax Sur, Cauayan City	6 (32%)
Designation/appointment of more SWM/WWM technical staff to SWM organization	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur	6 (32%)
Reconstitution of ESWM Board to include more private sector, CSO members	Bayombong, Dupax Sur, Solano	3 (16%)
Role and functions of other LGU units like Engineering and GSO/PSO and functional working relationships clearly defined and fully coordinated	Aritao, Bagabag, Bayombong, Dupax Norte, Dupax Sur	5 (26%)
SWM officer networking with or mobilizing other sectors to support SWM implementation, preferably with agreements;	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	8 (42%)
Budget of SWM office (e.g., MENRO)/organization increased	Bagabag, Bayombong, Solano, Cauayan City	4 (21%)
Regular meetings of the ESWM Board with decisions being made	Aritao, Bayombong, Dupax Sur, Solano	4 (21%)
Working protocols and reporting systems within SWM organization developed and implemented	Aritao, Bayombong, Solano, Cauayan City	4 (21%)
HRD/capability-building activities conducted for staff/body	Aritao, Bagabag, Bambang, Dupax Norte, Dupax Sur, Solano, Cauayan City	7 (37%)
Barangay committees taken on or leading some SWM activities in their barangay	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Quezon, Solano, Cauayan City	8 (42%)

Sector/Higher Level Practices	LGUs with these practices	Frequency (% of total)
System for making recommendations to higher LGU authority established	Aritao, Bayombong, Solano	3 (16%)
M&E system/reporting established	Aritao, Dupax Norte, Cauayan City	3 (16%)
Formal agreements with other pertinent sectors established by SWM organization	Aritao, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Expansion in the number of households practicing at- source or household composting	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Quezon, Solano, Cauayan City	9 (47%)
Establishment/expansion of an operational composting facility or any other resource recovery facility	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Quezon, Solano, Cauayan City	8 (42%)
Waste diversion of at least 25% in major waste generators such as public market, commercial district and highly populated areas;	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	7 (37%)
Schools in collection area adopting waste segregation, composting and recycling	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Quezon, Solano, Cauayan City	9 (47%)
Collection of fees and charges for services provided	Bagabag, Bambang, Bayombong, Solano, Cauayan City	5 (26%)
More establishments and institutions complying with waste segregation requirements	Bagabag, Bambang, Bayombong, Dupax Norte, Quezon, Cauayan City	6 (32%)
System agreed with generators for management of THW	Bagabag, Bambang, Dupax Norte, Cauayan City	4 (21%)
Central MRF (for composting and/or storage of recyclables) fully operational or expanded	Aritao, Bagabag, Bambang, Bayombong, Cauayan City	5 (26%)
Implementation of system of incentives/rewards and penalties in support of waste diversion	Bambang, Bayombong, Dupax Norte, Cauayan City	4 (21%)
Organization and/or regulation of junkshops, recycling sector to enhance efficiency of resource recovery and promote proper handling of recyclables	Aritao, Bayombong, Cauayan City	3 (16%)
Formal agreements with buyers/processors of wastes	Aritao, Bayombong, Cauayan City	3 (16%)
Establishment and expansion of coverage of segregated waste collection	Bagabag, Bambang, Bayombong, Solano, Cauayan City	5 (26%)
Provided budget for construction and use of septic vault for THW	Bagabag	1 (5%)
Establishment of system to enforce ordinances relating to waste collection	Bagabag, Bambang , Bayombong, Solano	4 (21%)
Formal adoption of tipping fees (thru ordinance)	Bagabag, Bayombong, Dupax Norte, Solano	4 (21%)
Expansion of coverage of collection of user fees and/or adoption of updated user fees	Bambang, Bayombong, Solano, Cauayan City	4 (21%)
Investments in newer/better collection vehicles and equipment (budgets allocated)	Bayombong, Solano	2 (11%)
Actual development of SLF	Bayombong	1 (5%)
Actual operation and maintenance of wastewater/septage treatment facilities (in slaughterhouse)	Bayombong, Cauayan City	2 (11%)
Agreement to a permitting process wherein DENR and LGU consult each other prior to issuance of permit/ECC	Aritao, Bambang, Bayombong, Dupax Sur, Solano	5 (26%)
Periodic exchange of info or establishment of common database on establishments with ECC and other environment permits	Bambang, Bayombong Cauayan City	3 (16%)
Agreement between DENR and LGU to jointly monitor compliance with ECC/permit conditions	Aritao, Bagabag, Bayombong, Cauayan City	4 (21%)
Expanded IEC to promote compliance with national laws and local ordinances	Aritao, Bagabag, Bayombong, Dupax Sur, Cauayan City	5 (26%)
Institutionalization of conflict management process through an ordinance	Bagabag, Dupax Sur, Quezon, Solano	4 (21%)
Allocated budget to conflict management	Bagabag, Bambang, Quezon, Cauayan City	4 (21%)
Establishment of mechanism for enforcing and monitoring the agreements of a conflict resolution process	Bagabag, Bambang, Dupax Norte, Dupax Sur, Cauayan City	5 (26%)
Adoption of formal procedure for reporting violations	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Actual issuance of citation tickets/ imposition of fines/penalties	Bambang, Bayombong, Dupax Norte, Dupax Sur, Cauayan City	5 (26%)

Sector/Higher Level Practices	LGUs with these practices	Frequency (% of total)
Formal designation or deputation of trained enforcers	Bagabag, Bambang, Bayombong, Cauayan City	4 (21%)
Training of law enforcers	Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	7 (37%)
Formal linkages with concerned public and non-government agencies to improve law enforcement	Bagabag, Bambang, Bayombong, Solano, Cauayan City	5 (26%)
Institutionalization of transparency practices/requirements through formal documents/ ordinance or working protocols	Bagabag, Bayombong, Dupax Norte, Solano, Cauayan City	5 (26%)
Institutionalization of participatory practices/requirements through an ordinance or working protocols (e.g., in law enforcement, plan implementation)	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Designation of point-person or office for information dissemination and IEC	Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	7 (37%)
Use of additional/more advanced/popular media like radio, TV, web, publications; if applicable; and (billoboards; tarps)	Bagabag, Bambang, Bayombong, Dupax Norte, Cauayan City	5 (26%)
Establishing LGU's monitoring and public reporting system (e.g., state of SWM/progress reports)	Bagabag, Bambang, Bayombong, Dupax Sur, Solano, Cauayan City	6 (32%)
Accreditation of POs, NGOs, and other stakeholder groups (junkshop operators; itinerant vendors, market vendors, business chambers, etc)	Bagabag, Bayombong, Dupax Norte, Cauayan City	4 (21%)
Establishment of a system for regular communication and feedback with the general public and stakeholders	Bagabag, Bayombong, Dupax Norte, Solano, Cauayan City	5 (26%)
Mobilizing/organizing stakeholders (e.g., formation and mobilization of POs/NGOs, chambers, schools, market operators, etc)	Bagabag, Bambang, Bayombong, Dupax Norte, Solano, Cauayan City	6 (32%)
Federating/networking/clustering POs/NGOs/stakeholders/buyers/recycler groups;	Bayombong, Dupax Norte, Cauayan City	3 (16%)
Assisting stakeholder groups in their funds leveraging efforts and implementation of their management plans/programs/activities	Bagabag, Bayombong, Dupax Norte, Cauayan City	4 (21%)
Capability-building training for citizen enforcers	Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	7 (37%)
Formal recognition of and incentives for citizen enforcers	Bagabag, Bambang, Bayombong	3 (16%)
Evidences of cases of actual apprehensions by citizens group/volunteers	Bambang, Bayombong, Cauayan City	3 (16%)

Table 15. Perceived outcomes/results of improved governance

Sector/Higher Level Practices	LGUs with these experiences	Frequency (% of Assessed LGUs)
FFM		
Improved forest cover	Aritao, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan	6 (33%)
Improved income and revenue generation	Aritao, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan	6 (33%)
Reduction in illegal activities/threats	Dupax Sur, Solano, Cabarroguis	3 (17%)
Improved biodiversity, quality of forest cover	Dupax Sur, Aglipay, Cabarroguis, Diffun, Madella, Nagtipunan	6 (33%)
Forest conversion stopped	Cabarroguis	1 (6%)
Citations, awards for good performance	Quezon, Diffun	2 (11%)
Prevention of open access	Quezon, Aglipay, Cabarroguis, Diffun, Baler	5 (28%)
CRM		
Reduction of destructive and illegal fishing activities	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Increased apprehension due to effective enforcement	Dipaculao	1 (25%)
Enhanced fish production/abundance/size especially in immediate vicinity of marine sanctuary	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Increase in number of functional enforcement bodies with right mix of capabilities/competencies in area of operation	Dinalungan, Dipaculao	2 (50%)
Increase in the number of active groups/citizens/stakeholders that are committed to improved CRM	Dinalungan, Dipaculao, San Luis	3 (75%)
Cleaner coastal areas	Baler, Dinalungan, Dipaculao, San Luis	4 (100%)
Improved status of resources such as mangrove, corals, seagrass, and general biodiversity in MPAs	Dinalungan, Dipaculao, San Luis	3 (75%)
Increased number of permittees/licensees/registered fisherfolks	San Luis	1 (25%)
Improved revenue collection from permits/licenses,	Dinalungan	1 (25%)
UEM		
More efficient collection and transport, wider collection area	Aritao, Bagabag, Bambang, Bayombong, Dupax Sur, Solano, Cauayan City	7 (37%)
Revenues generated from users' fee	Bagabag, Bambang, Bayombong, Solano, Cauayan City	5 (26%)
Awards received for being clean	Aritao, Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	8 (42%)
Reduction in street litter, improved aesthetics	Bagabag, Bambang, Bayombong, Dupax Norte, Dupax Sur, Solano, Cauayan City	7 (37%)
Reduction in air, water, and land pollution sources in the disposal area	Cauayan City	1 (5%)

Table 16. Common deteriorations in 'best practices' of LGUs in Northern Luzon

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
FFM		
Decline in natural forest cover, further conversion of natural forests to non-forest uses	Aritao, Bambang, Aglipay	Uncontrolled entry of migrants, uncontrolled agricultural activities, unregulated charcoal-making
	Maria Aurora	Political intervention, power struggle, economic hardship
	San Luis	Low awareness on environment
Decline in the level of protection/management of natural areas/forest, law enforcement, increase in violations/threats to forest	Aritao, Bambang, Quezon, Baler	Uncontrolled entry of migrants, poverty
	Dinalungan	Change in LGU leadership and suspension of some officials; corn production
	Dipaculao	Insufficient budget for FFM, no specific LGU unit/focal person with clear roles and accountabilities for FFM; LGU role on forestland management not clear to them
	Maria Aurora	Ineffective enforcement of forestry laws; lack of alternative livelihood opportunities especially in upland areas; political intervention
	San Luis	Sawmill operations, low environmental awareness
Budget cut	Dupax Sur, Quezon	Non-implementation of previous years' planned activities, financial constraints
Tenure areas become 'de facto' open access	Nagtipunan Dipaculao M. Aurora	Uncontrolled entry of migrants
FLUP implementation not effectively pursued Annual work program/action plan for FLUP implementation not drafted Planned Forest Mgt Committee not formed Implementation MOA not signed	Baler	Lack of financial resources Insufficient LGU technical expertise
FLUP was not finalized	Maria Aurora	Disagreements with the PENRO and the TA group on some provisions in the plan; some agencies refuse to participate in the program
TWG became non-functional	Dipaculao	Members became too busy, priority shifted to other issues; reconstitution occurred as a result of the change in LGU leadership
	Maria Aurora	too many members that quorum is hard to achieve; lack of technical expertise, unsustained interest of members/ *ningas-kugon* attitude, lack of motivation/recognition
% of LGUs	**11 (58%)**	
CRM		
Not all planned activities (e.g. training, bouy and billboard replacement, facilities) implemented	Baler, San Luis	Financial constraints
BFARMC deteriorated	Baler	Economic reason, inadequate understanding of roles and responsibilities of BFARMC among members and LGU, lack of capability-building
MFARMC meetings became irregular	Dipaculao	Lack of incentives for sustained participation like transpo/meal allowance, unsustained interest of some members
Law enforcement activities not fully implemented as planned	Dipaculao	Bantay Dagat lacks fuel support, lacks financial incentives
Decline in number of fisherfolks that registered	Dinalungan	Poverty and lack of appreciation of the LGU's CRM program
Revenue generated from bangus fry concessions and gear	Dipaculao	Collector not doing responsibility

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
and banca registration declined because of lax enforcement		
Degradation of marine habitats such as coral reefs	Dinalungan, San Luis	Sedimentation from upland areas Natural causes
% of LGUs	**4 (100%)**	
UEM		
Ordinance not effectively enforced	Aritao	
	Dupax Norte	Lack of political will of the local leaders to implement; perceives enforcement as a political suicide
	Dupax Sur	Staff assigned not performing his role, lack of manpower, lack of motivation/incentive
One collection vehicle not maintained leading to erratic collection in one barangay		Financial constraints
Allocation for SLF insufficient	Bayombong	Resistance from people, lack of financial resources and technical expertise
Regular collection schedule became erratic/unsustained	Dupax Norte	Wear and tear of old truck (but bidding for new one has been completed)
Designation of SWM Coordinator not sustained,	Quezon	Change in LGU leadership
MSWMB stopped being functional and its budget not sustained	Quezon	Lack of financial resources, too many members that quorum is hard to achieve, unsustained interest of members
Unsustained implementation of IEC/social marketing	Quezon	IEC team no longer functional; no team coordination
% of LGUs	**5 (26%)**	

10.0 CENTRAL VISAYAS INDICES: STATE, TRENDS AND DETERMINANTS

Assisted LGUs in Central Visayas are located in a geographic area that is rapidly growing as a hub for economic, financial and institutional progress. As a whole, these LGUs were the best performers among those that underwent the baseline assessment in 2005. However, ecological sustainability is fast becoming a serious challenge and concern because of the rising demand for water, food, and space. While rapid growth and development tend to concentrate in major urban centers, the relatively undeveloped peripheral municipalities are challenged with the need to implement adequate environmental safeguards to enable them to supply the food, wood, fiber and recreation needs of neighboring large cities on sustainable basis or without undermining their own natural resources.

10.1 Update on Profile of LGUs Covered

Thirty four LGUs comprising of five cities and 29 municipalities underwent the 2007 GSA. Five of these LGUs (Lazi, Siquijor, Bindoy, Moalboal, and Ayungon) participated in the survey for the first time, 29 were old LGUs or those that underwent the baseline GSA in 2005 (28 LGUs) and 2006 (1 LGU-Carmen).

The 34 LGUs covered by the mid-term survey varied widely in terms of population density, land area, extent of coastline, IRA, and degree of urbanization (**Table 17**). Majority (62%) of them belonged to the low income classification of 4th and 5th, which also reflects the low income status of their constituents and their rural nature. These

peripheral rural LGUs provide food, fuel, raw materials, and labor to the urban centers like Cebu City, Tagbilaran City, Danao City, and Bayawan City, a situation that can put further strain on their fragile environments without adequate environmental safeguards.

Communities mostly depend on farming and fishing for their income and sustenance. Several LGUs earn additional revenues from ecotourism by exploiting their localities' natural beauty and rich biodiversity.

All surveyed LGUs contain forestland of varying sizes (more than two-thirds in Ayungon and Alcoy to as little as 5% or less of the total land area in seven LGUs). While majority of the LGUs are situated in important watershed and forest reservations, the forests and forestlands remain critically in need of rehabilitation and protection from further conversion to other land uses.

Except for three landlocked municipalities, the LGUs are all coastal. This means that they all need to take care of all three environment sectors: forest, coast and marine and solid and liquid wastes. To enhance their fishery resource and conserve biodiversity, majority of the coastal LGUs (27 or 87% of total) have established at least one marine protected area.

Another key distinguishing feature of the LGUs is the presence of many organizations that provide technical, financial and in-kind assistance to their FFM, CRM and UEM programs **(Table 18).** Unlike the LGUs in Northern Luzon, whose primary source of assistance are their respective provincial governments, the LGUs in Central Visayas were receiving multiple assistance from varied public and private organizations.

10.2 Trend in LGU Spending on the Environment

Over-all Environment Budget

Only 20 (59%) out of the thirty four LGUs that self- assessed provided data regarding environment allocation in their 20% DF. The available data suggests that cities allocated the highest amounts of funds for the environment from their 20% DF. This observation might be associated with their higher IRAs and of their need to provide greater amount of environment services to a larger population. However,

While lower income LGUs tend to have smaller budgets for the environment from out of their 20% DFs, there were some exceptions. For instance, the lone 1st income class municipality (Balamban) allocated more or less similar amounts on the environment with the fifth income class LGUs. In terms of the cities, there also appears no clearcut relationship between income class and the amounts allocated for environmental undertakings from their respective 20% DF. This affirms earlier observation that budgeting for the environment seems an individual decision of the LGU, and may be a function of the value and priority they place on the environment and the existing threats on the environment.

It should be noted that 20% DF is not the only source of LGU budget for the environment as LGUs may also get funds from other internal sources such as funds of the Mayor's office, personnel, and MOOE and from external sources (e.g., grants, donations, etc) which can be monetary, technical, or in-kind.

LGU Class	Municipal Income Class (No. of LGUs with data)					City Income Class (No. of LGUs with data)		
	1st (1 LGU)	2nd (1 LGU)	3rd (4 LGUs)	4th (5 LGUs)	5th (5 LGUs)	2nd (1 LGU)	3rd (2 LGUs)	4th (1 LGU)
Average allocation for the envt. in 2006-2007	0.56 M	2.01 M	1.10 M	0.79 M	0.52 M	6.2M	15.43 M	5.38 M
Average percent Share	4	34	14	14	13	13	22	16

Nine (four in Negros Oriental, three in Bohol, 2 in Cebu) or less than half of LGUs with available data increased the environment share in their 20% DF (see **Table 17** and the summary below). The mean share of environment seems to have generally improved in the case of LGUs in Negros Oriental and Bohol provinces. However, the available data seem to indicate a decline in the share of the environment in the 20% DF of Cebu LGUs compared to their allocations during the baseline GSA. The newly assisted LGUs allocated a high 8% to 34% (average of 21%) of their 20% DF to environment.

Environment budgets are used by LGUs in the preparation and implementation of their environment plans, and to deliver certain environment services to their constituents. LGUs that newly receive direct technical assistance from EcoGov tend to allocate higher amounts to the sector assisted as counterpart to EcoGov support.

Province	Average share of environment in 20% DF, 2004-2005	Average share of environment in 20% DF (%), 2006-2007
Cebu	11%	629,376 (9%)
Bohol	9 %	609,546 (12%)
Siquijor	Not applicable	1,493,529 (28%)
Negros Oriental	12%	5,709,173 (17%)
Average for All LGUs	11%	15%

It appears that LGUs improved their environmental governance performance regardless of whether there was deterioration or improvement in the share of the environment in their 20% DFs. This observation should not be misconstrued to mean that increasing budget for the environment is not important. Rather, what appears equally important is sustaining the practice of allocating adequate funds for the environment.

Trend in Sector Budget

Table 19 depicts the average yearly LGU budget allocation for FFM, UEM and CRM for 2006 and 2007. Available data on UEM budget ranged from as low as four pesos (PhP4) per person in most of the poorer and more rural LGUs to as high as P81 per person in the

more urbanized and richer Bayawan City. Rural LGUs are expected to spend less on management of solid and liquid wastes as they do not face similar level of threats from these wastes as their more urban counterparts. CRM budgets ranged from less than P6,000 per kilometer (km) of coastline in Pilar to as high as P350,000 per km in Dauin. Budgets for FFM ranged from six pesos (PhP6) per ha in Dalaguete to P1,000/ha in Pilar.

The average yearly budgets allocated per sector in 2004-2005 (figures in parenthesis) are also presented in Table 19 to enable comparison with 2006-2007 sector budgets. Only a fourth of the LGUs have provided data for 2006-2007, hence, a more meaningful analysis of pattern is not possible. However, similar observation as the baseline assessment can be noted, that the level of sector indices tend to follow the level of LGU budget as well as the accumulated investment on the sector over time. For instance the noticeable upward trend in LGU allocation for UEM seems positively correlated with the generally much improved LGU performance in this sector.

Bayawan City, the only LGU that hit the perfect over-all index of 1.00 consistently allocated very high amounts of funds (millions of pesos) for all three environment sectors since the baseline assessment. There were LGUs that registered high sectoral indices in spite of lowered budgets during the midterm assessment because the sectors concerned were already performing well as a result of earlier investments.

10.3 Summary Indices

Table 20 presents the summary of the results of the mid-term GSA for all 34 LGUs that self-assessed in Central Visayas. Of the 34 LGUs, 29 are 'old LGUs' or those that underwent the baseline survey in 2005 (28 LGUs) and 2006 (1 LGU-Carmen). The midterm results for the 5 additional LGUs (Moalboal, Lazi, Siquijor, Bindoy, and Ayungon) serve as their baseline indices. **Table 21** presents the various sectoral and cross-sectoral indices and the corresponding environmental category that all 34 LGUs obtained during the baseline and mid-term GSA.

One (Bayawan City) LGU obtained the ideal index of 1.00 indicating that all 57 best practices in FFM, CRM, and UEM have been adopted. There were a total of 19 top-ranked LGUs (names are highlighted in Table 20) or those that registered an over-all index of 0.75 and above. Seven LGUs (five are 'old', two are 'new') are at the bottom of the list in terms of over-all index: Ayungon (0.53), Corella (0.58), Pilar (0.58), Poro (0.60), Bindoy (0.61), Carmen (0.61) and Tudela (0.65).

Trend in Range of Indices

As shown in the summary below, majority of the LGUs in Bohol (78%) and Siquijor provinces (64%) obtained 0.75 and above over-all environmental governance index, none registered under 0.50 index. Majority of Cebu LGUs fell under the range of 0.51-0.75 and there was one LGU in this province that obtained less than 0.50 index. The mean registered for all 34 LGUs was 0.78.

Improvement in over-all environmental performance is indicated by the shift in the values of indices of all 29 'old LGUs' toward the higher range of values as well as the higher mean over-all index of 0.79 compared to the baseline mean of 0.68 for these LGUs.

Range of Over-all Indices	**Cebu** Baseline: 0.42-0.93 MT: 0.58-0.95		**Bohol** Baseline: 0.52-0.88 MT: 0.58-0.98		**Siquijor** Baseline: N/A MT: 0.72-0.79		**Negros Oriental** Baseline: 0.48-0.89 MT: 0.53-1.00		**All LGUs (%)** Baseline: 0.42-0.93 MT: 0.60-1.00	
	BL[4] (11 LGUs)	**MT (12 LGUs)[5]**	BL (9 LGUs)[6]	**MT (9 LGUs)**	BL (0 LGU)	**MT (2 LGUs)**	BL (9 LGUs)	**MT (11 LGUs)[7]**	BL (29 LGUs)	**MT (34 LGUs)**
0.00-0.25	0 (0%)	**0 (0%)**	0 (0%)	**0 (0%)**	NA	**0 (0%)**	0 (0%)	**0 (0%)**	0 (0)	**0 (0%)**
0.26-0.50	1 (9%)	**0 (0%)**	0 (0%)	**0 (0%)**	NA	**0 (0%)**	1 (12%)	**0 (0%)**	2 (7%)	**0 (0%)**
0.51-0.75	8 (73%)	**7 (58%)**	6 (66%)	**2 (22%)**	NA	**1 (50%)**	4 (44%)	**4 (36%)**	18 (62%)	**14 (41%)**
0.76-1.00	2 (18%)	**5 (42%)**	3 (33%)	**7 (78%)**	NA	**1 (50%)**	4 (44%)	**7 (64%)**	9 (31%))	**20 (59%)**
Mean All LGUS	0.68	**0.76**	0.63	**0.80**	NA	**0.76**	0.72	**0.80**	0.68	**0.78**
Mean Old LGUs	0.68	**0.76**	0.63	**0.83**	NA	**NA**	0.72	**0.83**	0.68	**0.79**

Summary Status by Province

The results indicate the following mid-term status of environmental governance in each of the four Central Visayas provinces:

- **Cebu City** LGUs' best performing sector was CRM (mean index = 0.96) followed by LIM (mean index = 0.81). FFM (mean index = 0.59) and UEM (mean index = 0.67) generally trailed behind in performance. By governance function, they did very well in budgeting, procurement and cross-cutting functions but need to work more in terms of planning/plan implementation, law enforcement and permitting. As a whole they were very transparent (mean index = 0.83), functional (0.76) and participatory (0.76) but generally weakly accountable (0.60).

- **Bohol** LGUs generally performed well in all sectors as indicated by the high mean indices in UEM (0.85), CRM (0.84), FFM (0.77) and LIM (0.77). Like the Cebu LGUs, they generally posted low indices in accountability (mean index of 0.67) compared with the other governance principles of transparency (0.85), functionality (0.81) and public participation (0.79). In terms of governance function, they were good in budgeting (mean index of 1.00), planning and plan

[4] Includes baseline data for Carmen (GSA done in 2006)
[5] Includes 1 new LGU (Moalboal)
[6] Excludes old LGUs (Tagbilaran and Alburquerque) that did not undergo mid-term GSA
[7] Includes 2 new LGUs (Bindoy and Ayungon)

implementation (0.81), permiting/licensing (0.81) and law enforcement (0.77) but generally performed poorer in terms of procurement (0.63).

- The two **Siquijor** municipalities that underwent baseline GSA registered ideal index of 1.00 in CRM. Both also did relatively well in UEM (mean of 0.75) but not equally well in FFM (0.53) and LIM (0.67). They were transparent (mean of 0.95) and functional (0.77) but need to institute more accountability measures (0.40) and improve participatory practices (0.70). They were doing strongly in permitting/licensing and budgeting (mean of 1.00 index), but should strive to raise their performance in planning/plan implementation (0.75), law enforcement (0.67) and procurement (0.67).

- **Negros Oriental** LGUs generally performed well in CRM (mean of 0.83), LIM (0.79) and FFM (0.76), but has to catch up on UEM (0.67). As with the LGUs in the other Central Visayas provinces, they were highly transparent but weak in accountability. They generally performed well in all governance functions, except in law enforcement.

Trend in Sector Indices

The results of the baseline assessment and mid-term assessment in terms of the three environment sectors of FFM, CRM and UEM and LIM are both summarized below. The mean indices for all LGUs (new and old) are presented to show the current 2007 performance of all LGUs covered by the GSA. The new means obtained for UEM and FFM markedly improved, but CRM remained the best performing sector for all LGUs (old and new) in all provinces.

The results for the 'old LGUs' are also presented to show the trend in their performance in each sector since the baseline assessment. Improvement in sector performance is indicated by the higher means obtained by the 'old LGUs' in all sectors during the mid-term assessment.

Looking at the mid-term performance by old LGUs by province, it appears that LGUs in Negros Oriental were generally the best performers in FFM with mean index now reaching 0.80. Bohol LGUs showed the biggest leap in UEM performance. Cebu LGUs though improved in both FFM and UEM, indices in these sectors remained in the low range. Bohol LGUs showed marked improvement in CRM, but Cebu and Negros Oriental were the top performers in this sector with mean index of both 0.97.

Sector	Cebu		Bohol[8]		Siquijor		Negros Oriental		All LGUs	
	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**
FFM										
All LGUs	0.52	**0.59**	0.68	**0.77**	NA	**0.54**	0.67	**0.76**	0.61	**0.69**
Old LGUs	0.52	**0.60**	0.68	**0.77**	NA	NA	0.67	**0.80**	0.61	**0.71**
CRM										
All LGUs	0.86	**0.96**	0.72	**0.84**	NA	**1.00**	0.85	**0.83**	0.82	**0.93**
Old LGUs	0.86	**0.97**	0.72	**0.84**	NA	NA	0.85	**0.97**	0.82	**0.93**
UEM										
All LGUs	0.60	**0.67**	0.59	**0.85**	NA	**0.75**	0.69	**0.67**	0.62	**0.73**
Old LGUs	0.60	**0.66**	0.59	**0.85**	NA	NA	0.69	**0.74**	0.62	**0.75**
LIM										
ALL LGUs	0.70	**0.81**	0.59	**0.77**	NA	**0.67**	0.67	**0.79**	0.66	**0.79**
Old LGUs	0.70	**0.82**	0.59	**0.77**	NA	NA	0.67	**0.82**	0.66	**0.80**
Cross-Sector										
All LGUs	0.68	**0.76**	0.63	**0.83**	NA	**0.76**	0.72	**0.80**	0.68	**0.78**
Old LGUs	0.68	**0.76**	0.63	**0.83**	NA	NA	0.72	**0.83**	0.68	**0.79**

Change in LGU Category

The upward trend in environmental governance performance over time is indicated by the rise in the number of 'old LGUs' that shifted to higher category during the mid-term assessment. As can be gleaned in the summary provided below, there are now 20 (or 69% from previous 28%) 'old LGUs' under Category 1 (Well Performing). Eleven of these LGUs were previously under Categories 2 (Median) and 4 (Overspecializing); nine sustained their Category 1 status. It should be noted that majority of these Category 1 LGUs received direct EcoGov assistance in only one environment sector, only two were assisted in all three sectors, six received assistance in two sectors. Their ability to transfer the practice of good governance to the EcoGov unassisted sectors reflects their commitment for improved over-all environmental governance.

Improved performance of 'old LGUs' is also apparent in the elevated value of their mean over-all environmental index, of from 0.68 during the baseline assessment to the current 0.79. This upward trend reflects EcoGov success in facilitating positive change in environmental governance of assisted LGUs.

The last column covers the categories of all LGUs including those of five 'new LGUs that underwent the mid-term GSA as their baseline assessment. Four of the 'new LGUs' registered high baseline performance by achieving either Category 1 or 2 status.

[8] No new LGUs

Index Category	Number, Percentage and Mean Over-all Indices of LGUs That Belong to the Category		
	Baseline (29 LGUs)[9]	**Midterm (29 Old LGUs)[10]**	**Midterm (All 34 LGUs)[11]**
1-Well Performing	8 (28%) 0.83	20 (69%) 0.87	21 (62%) 0.85
2- Median	10 (34%) 0.62	3 (10%) 0.72	6 (18%) 0.70
3- With Generally Low Indices	0	0 (0%)	0 (0%)
4- Overspecializing	11 (38%) 0.60	6 (21%) 0.63	7 (20%) 0.61
Average Cross-Sector Index	**0.68**	**0.79**	**0.78**

10.4 Forest Sector Indices

Table 22 presents details of the index on FFM of all 32 LGUs that underwent assessment on this sector. The names of the 13 top-ranked LGUs that garnered an index of 0.75 and above are highlighted. Noticeably, these are all 'old' LGUs.

The bottom-ranked LGUs across all provinces that obtained less than 0.50 index (or adopted less than half of the 'best practices') were Pilar (0.27), Tudela (0.27), Compostela (0.20) Corella (0.33), Lazi (0.40), and Carmen (0.47). Except for Lazi, these are all 'old LGUs" and received no technical assistance on FFM from EcoGov. However, all bottom-ranked LGUs have been receiving technical and or logistical assistance from other organizations like DENR, Plan Philippines and other local foundations and assisting organizations. They are expected to improve their sector performance in the coming years. The absence of a forest land use plan (FLUP) or other strategic FFM management plan as well as person, multisectoral body or office in charge of forest management were noticeably common characteristics of these LGUs.

Usual weak areas of LGUs in all provinces were accountability and law enforcement. Cebu, with 7 LGUs (out of 12) registering an index of 0.53 and below, had the most number of LGUs that need to catch up in FFM. These LGUs generally underperformed in all governance functions and principles (transparency, accountability, functionality, participation, planning and plan implementation and law enforcement).

Underperforming LGUs can gain inspiration from the following LGUs that had low baseline FFM index but were able to significantly elevate their mid-term performance: Danao City (0.13 to 0.87), Sta. Catalina (0.47 to 0.93), Pamplona (0.07 to 0.67), Toledo City (0.47 to 0.87), Cortes (0.53 to 0.80), Amlan (0.33 to 0.73). The completion of a

[9] A total of 31 LGUs conducted baseline assessment in 2005 (30 original LGUs) and 2006 (Carmen). Two LGUs were dropped: Tagbilaran City and Alburquerque, hence 29 LGUs
[10] 29 old LGUs whose baseline GSA was conducted in 2005 and 2006
[11] Includes baseline results for 5 new LGUs

management plan, designation of accountable office and persons, and allocation of budget for FFM seemed to have contributed to the progress of these LGUs.

10.5 Coastal Sector Indices

Coastal resource management remained the area of excellence of Central Visayas LGUs (**Table 23**) as evident in the high mean CRM indices obtained in all provinces. Sixteen LGUs registered perfect 1.00 index, most of them found in Cebu. Twenty five (25) of the 31 LGUs that underwent assessment in this sector registered high indices of 0.82 and above. Bais City was the most improved LGU, with CRM index of 0.94 from 0.29. Together with Compostela (0.65 to 0.88) and Dauis (0.53 to 0.82), it can serve as model for other coastal LGUs that seek to improve their CRM.

Of the five LGUs that relatively underperformed (lowest CRM index still high though at 0.65), two (Bindoy and Ayungon) are newly assisted by EcoGov 2 in MPA planning. The old LGUs that need to catch up in performance are Panglao, Cortes, and Jagna; all found in the province of Bohol and registered an index of 0.71. Of these three, only Jagna received indirect technical assistance from Ecogov2 through an upscaling strategy spearheaded by the provincial government. Panglao received no assistance at all, but Cortes was assisted by DENR, BFAR and BEMO.

10.6 Urban Sector Indices

Twenty two or around 65% of the LGUs that self-assessed in UEM obtained an index of 0.75 and above (**Table 24**), including one newly assessed LGU (Moalboal). The following LGUs significantly raised their mid-term indices: Tudela (0.13 to 0.56), Talibon (0.31 to 0.94), Maribojoc and Cortes (0.69 to 1.00), Corella (0.56 to 0.81), and Duero and Dauis (0.50 to 0.81). The strategies they employed can serve as models for remaining underperforming LGUs.

The bottom-ranked LGUs include three in Cebu (Pilar-0.38, Poro-0.25, Carmen- 0.19) and four in Negros Oriental (Sta. Catalina-0.50, Tanjay-0.50, Bindoy-0.44 and Ayungon-0.19). Of these seven LGUs, Ecogov provides technical assistance in UEM only to Sta. Catalina and Tanjay. Plan Philippines provided some technical and financial assistance to Poro and Pilar's UEM, Carmen was being assisted by the provincial ENRO on clustering, while Bindoy and Ayungon were receiving assistance from European Union-Environment and Natural Resource Development Project (ENRDP) in ISWM plan preparation. Based on available data (see Table 19) Pilar, Sta. Catalina and Bindoy provided budget for UEM in 2006 and 2007, showing their commitment to improve solid waste management services.

Law enforcement remained the weakest in terms of governance function in all provinces as LGUs either failed to pass a local ordinance or implement national laws pertaining to UEM (measure of functionality) or lacked transparency or public participation in the conduct of this function. As a whole, Cebu and Negros Oriental LGUs should improve their functionality by adequately supporting formally created/designated office/officer or

management body conduct their functions, preparing plans and sustaining plan implementation, and enforcing ordinances and pertinent laws and agreed protocols. Negros Oriental LGUs should work more on the aspect of public participation in the conduct of mandated functions.

10.7 LGU Internal Management Indices

Cebu LGUs were over-all the best performers in LIM, with eight of the 19 top-ranked LGUs found in this province and province-wide mean of 0.81 **(Table 25)**. The lowest index obtained by four LGUs (Corella, Dauis, Pamplona and Bindoy) was 0.56, an improvement over the baseline GSA lowest index of 0.22 obtained by Panglao. Common weakest area of performance was on accountability with mean of 0.36 for Negros Oriental, 0.00 for Siquijor, 0.50 for Bohol, and 0.46 for Cebu LGUs. Low accountability in LIM stems from lack of a LGU system to monitor the performance and to provide incentive (reward) or disincentive to bad performance of LGU officials and personnel and multisectoral bodies formed by the LGU.

The LGUs were also commonly weak in the area of public participation in the conduct of internal management functions (Bohol- 0.33, Cebu-0.38, Siquijor-0.00, and Negros Oriental-0.55). All LGUs registered perfect index in budgeting as they all provided budget for the environment as well as leveraged external assistance to implement environmental initiatives. Bohol and Siquijor LGUs, with respective means of 0.63 and 0.67 were weakest in procurement, owing to low transparency and public participation in the conduct of this function.

10.8 Adoption of Higher Level 'Best Practices'

Table 26 lists the names of the LGUs that adopted improved or higher level practices in FFM, CRM and UEM. A total of 19 LGUs (57% of total, mostly from Bohol province) adopted improved practices in FFM. Common higher level practices adopted in FFM include completion of tenure assessment, implementation of production activities on forestlands, formulation of detailed resource management plans (e.g., Protected Area Management Plan, Community Resource Management Framework), integration of FLUP with other LGU development plans such as the Annual Investment Plan and Comprehensive Land Use Plan (CLUP), creation of city or municipal Environment and Natural Resource Office (ENRO), improved leveraging and capability building, and enhanced multisectoral collaboration in forest law enforcement.

As high as 87% (or 27) of the total number of LGUs that self-assessed in CRM adopted higher level practices. Common examples of improved practices adopted include: allocation of regular budget for CRM plan implementation, periodic M&E, inter-LGU partnership and networking in CRM, implementation of CRM zones, expanded rehabilitation activity, livelihood support for fishers, improved permitting and licensing system, expanded IEC, improved law enforcement procedure with enhanced citizen participation, and regulations to address overfishing (e.g., gear, species regulation).

LGU wide adoption of higher level or improved practices in solid and liquid waste management was also high with 24 or 71% of the total LGUs assessed implementing them. Examples of improved practices commonly adopted by LGUs were: investments in improved waste management and disposal facility, clustering in SLF, greater mobilization of Barangay Solid Waste Management Committees (BSWMCs), accreditation of junkshop operators/waste recyclers organization, and improved IEC and capability-building activities. Greater compliance to at least 25% waste diversion was also observed. Three LGUs—Talibon, Jagna and Dauin adopted a system of user's fee and generated additional revenues in the process.

Cebu LGUs tend to overspecialize in CRM with 92% of the LGUs adopting higher level practices in this sector. Less than half of LGUs in this province adopted improved practices in FFM and less than 60% adopted improved UEM practices. Bohol LGUs consistently adopted higher level practices in all sectors while Negros Oriental LGUs seemed more inclined to adopt higher level practices in UEM.

10.9 Anecdotal Results/Outcomes of Good Governance

Anecdotal accounts of biophysical and socio-economic improvements have been reported by GSA participants in LGUs that registered high environmental governance indices (Table 27). This suggests that good environmental governance results in real gains in environmental quality. For FFM, participants perceived that forest cover and quality improved as threats including illegal cutting, conversion of natural forests and open access have declined. In four LGUs (Balamban, Dalaguete, Sta. Catalina and Bayawan City) some improvement in local revenues and income have been experienced from better managed forests and forestlands.

In CRM, improved quality of coral reefs, mangroves, seagrass and fish abundance in areas near or within marine protected areas and sanctuaries was commonly perceived in a third of the LGUs. A decline in incidence of illegal and destructive fishing was also observed, along with improved coastal sanitation and enforced coastal zones in about a third of the LGUs. Five LGUs (Toledo City, Alcoy, Dalaguete, Dauin, La Libertad) received awards and recognition because of their coastal and marine resource management initiatives.

Improved UEM was claimed to have resulted in better and more efficient waste collection and transport, reduction in street litter and consequently enhanced aesthetics in a third of the LGUs. It also resulted in recognition of accomplishments in waste management of five LGUs who each received awards for cleanliness, and in generation of additional revenues from user's fee in three other LGUs. Improved waste disposal in Bais City and Bayawan City was believed by participants to be responsible for perceived reduction in air, water and land pollution in these localities.

10.10 Perceived Deteriorations in 'Best Practices'

The failure of Poro to finalize its FLUP was the only instance of deteriorated practice reported for FFM. The only instance of perceived backsliding in UEM and CRM was reported by Dauis, whose CRM Technical Working Group (TWG) and Municipal Solid Waste Management Board (MSWMB) became inactive and non-functional. These management bodies stopped being functional according to FGD respondents because the municipality failed to sustain their budgets, allegedly due to internal political conflicts.

Notwithstanding the general lack of perceived deteriorations in sector performance, there were several LGUs whose sectoral indices declined or remained at their low baseline level. The names of these LGUs are listed below. EcoGov should closely examine the reasons for the deteriorated performance of each of these LGUs, and see whether the discrepancies were real deteriorations on the ground or a result of certain flaws in the conduct of the GSA so that appropriate actions can be made. For instance, in the case of Corella, the constant gridlock between the Mayor and former Vice Mayor who came from opposing political parties was perceived by the participants as cause of hampered progress in environmental governance. The May 2007 election produced a new Vice Mayor who belongs to the same political party as the Mayor and was hoped to reverse the declined performance in CRM.

For LGUs that suffered real deteriorations in performance, Ecogov should intervene to get the performance of these LGUs back on-track.

FFM			CRM			UEM			Over-All		
LGU	**BL**	**MT**	**LGU**	**BL**	**MT**	**LGU**	**BL**	**MT**	**LGU**	**BL**	**MT**
Compostela	0.60	**0.20**	San Jose	1.00	**0.94**	Pilar	0.38	**0.38**	Pilar	0.60	**0.58**
Carmen	0.67	**0.47**				Poro	0.25	**0.25**	Dalaguete	0.96	**0.95**
Corella	0.40	**0.33**				Alcoy	0.69	**0.63**	Carmen	0.68	**0.61**
Dauin	1.00	**0.67**				San Francisco	0.88	**0.75**	Dauin	0.89	**0.84**
Bais City	0.93	**0.80**				Carmen	0.25	**0.19**	Tanjay	0.77	**0.74**
Tanjay City	1.00	**0.73**				Panglao	0.75	**0.69**			
						San Jose	0.94	**0.88**			
						Dalaguete	0.88	**0.81**			
						Sta. Catalina	0.63	**0.50**			
						Pamplona	0.88	**0.75**			

Table 17. Profile of LGUs Surveyed in Central Visayas

LGU	Population (2000)	Barangays		Land Area (ha)	Pop'n Density (persons /ha)	Forestland (hectares; and % of total land area)	Terrestrial Protected Area	Coast-line (km)	MPA (number & combined size in ha)	Economic Activity With Bearing On Envt	Income Class	Ave. IRA (million pesos, 2006-07), figure in parenthesis is 20%DF	Ave. amount and % share of envt. in 20% DF (million pesos, 06-07)
		Total	Urban										
CEBU													
Pilar	11,226	13	2	3,527	3.2	225 (6%)	Mangrove Swamp Forest Reserve (MSFR)	26	1 (179.2)	fishing, farming	5th	18.01 (3.602)	292,500 (8% from 14% baseline)
Poro	21,397	17	6	6, 389	3.3	736 (12%)	MSFR	27	2 (75)	fishing, farming	4th	26.21 (5.242)	428,081 (8% from 13% baseline)
Toledo City	141,174	38	10	21,628	6.5	5,994 (28%)	No data	27	No data		2nd	270.9 (54.18)	No data (0.9% baseline)
Alcoy	13,497	8	1	6,285	2.1	4,973 (79%)	No data	7.8	2 (37.97)		4th	22.29 (4.458)	No data (15% baseline)
Compostela	31,446	17	5	5,390	5.8	3,611 (67%)	Kotkot & Lusaran WFR	5	1 (18.5)		4th	33.26 (6.652)	No data (26% baseline)
Balamban	52,952	28	11	33,700	1.6	8,576 (25%)	Central Cebu National Park	9	none (3 proposed)	shipbuilding/ repair	1st	61.53 (12.306)	565,000 (4% from 8% baseline)
San Francisco	41,327	15	3	10,597	3.9	538 (5%)	Mangrove SFR	47	3 (105.19)	fishing, farming	4th	37.49 (7.498)	No data (15% baseline)
Dalaguete	57,331	33	4	15,496	3.7	7,321(47%)	Argao River WFR	15.3	3 (27)	Farming	2nd	52.02 (10.404)	No data (7% baseline)
Tudela	10,401	11	2	3,302	3.1	127 (4%)	Mangrove SFR	15.4	2 (108.4)	farming, fishing	5th	19.07 (3.814)	537,974 (14% from 10%)
Moalboal	**23,402**	**15**	**2**	**7,290**	**3.2**	**1,968 (27%)**	**No data**	**26.4**	**4 (21.8)**	**farming, fishing, tourism**	**4th**	**30.97 (6.194)**	**No data**
Carmen	37,351	21	9	8,675	4..3	3,289 (38%)	No data	14.2	2 (72.27)		3rd	33.03 (6.606)	1,072,600 (16%)
Danao City	98,781	42	13	14,253	6.9	4,994 (35%)	Kotkot & Lusaran WFR	11	1 (39)	fish port	3rd	102.28 (20.456)	880,098 (4% from 0.3%)

		Barangays											
BOHOL													
Talibon	54,147	25	5	22,400	2.4	4,916 (22%)	4,916 ha MSFR	66	13 (519.31)	farming, fishing	1st	51.09 (10.218)	No data (2% baseline)
Panglao	21,337	10	2	5,050	4.2	272 (5%)	271.87 ha	3.1	8 (62.76)		4th	21.99 (4.398)	No data
San Miguel	20,828	18	1	10,404	2.0	799.9 (8%)	94.6 (Wahig Inabanga River WFR)	0	NA		4th	29.87 (5.974)	No data (7% baseline)
Pamplona	32,790	16	2	21,670	1.5	3,533 (16%)	None	0	NA	agriculture	3rd	40.17 (8.034)	497,500 (6% from 15%)
Maribojoc	16,786	22	3	6,956	2.4	1,168 (17%)	None	10	4 (232.71)	fishing	5th	24.77 (4.954)	925,000 (19% from 25%)
Cortes	12,702	14	2	3,299	3.8	143 (4%)	None	3	none	fishing farming	5th	18.94 (3.788)	505,000 (13% from 10%)
Jagna	30,643	33	7	12,063	2.5	2,968 (25%)	Loboc WFR; Alijawan-Cansuhay-Anibongan River WFR	14	9 (94.84)		4th	34.24 (6.848)	782,731 (11% from 7% baseline)
Corella	6,048	8	1	3,722	1.6	134 (4%)	None	0	NA	kaingin	5th	15.78 (3.156)	337,500 (11% from 8%)
Duero	16,485	21	9	6,984	2.4	2,634 (38%)	Wahig Inabanga River WFR	7	8 (78.11)		5th	26.0 3 (5.206)	No data (2% baseline)
Dauis	26,415	12	0	4,521	5.8	64 (1)	20	20	4 (40.93)		4th	29.64 (5.928)	No data (12% baseline)
SIQUIJOR													
Lazi	**18,314**	**18**	**2**	**8,641**	**2.1**	**88 (1%)**	**20**	**15.59**	**2 (14.91)**	**farming, fishing**	**4th**	**22.96 (4.592)**	**978,057 (21%)**
Siquijor	**21,150**	**42**	**0**	**7,590**	**2.8**	No data	**No data**	**No data**	**1 (13.51)**		**3rd**	**29.10 (5.82)**	**2,009,000 (34%)**
NEGROS ORIENTAL													
Dauin	21,077	23	3	14,432	1.5	5,279 (36%)	Apo Island Protected Landscape/ Seascape	10	10 MPAs (69.25 ha)	ecotourism, fishing	4th	28.68 (5.736)	No data (7% baseline)
Bais City	68,115	35	2		2.1	5,665 (18%)	None	28	1	agricultur	2nd	242.6 (48.52)	6.2 M (13%

		Barangays											
				31,690						e, fisheries			from 4% baseline)
Bayawan City	101,391	28	7	69,908	1.4	19,805 (28%)	599	60	1 (69.518)	fishing, farming	3rd	372.55 (74.51)	29,982,901 (40% from 9% baseline)
San Jose	15,665 (2000)	14	2	5,829	2.7	1,077 (18%)	1,077 Balinsasayao Twin Lakes Natural Park	7.1	1 (4.7)	fishing	5th	20.68 (4.136)	No data (16% baseline)
La Libertad	35,122	29	2	17,480	2.0	5,595 (32%)	728.00	8.3	1 (10)	sand and gravel, inappropriate farming system	3rd	37.71 (7.542)	866,310 (11% from 12% baseline)
Amlan	19,227	8	5	6,604	2.9	972 (15%)	2(2,163)	7.1	2 (14.87)		4th	26.12 (5.224)	1.065M (20% from 18% baseline)
Sta. Catalina	67,197	22	1	53,990	1.2	18,936 (35%)	No data	26	none	agriculture, off-shore fishing,	1st	72.94 (14.588)	No data (21% baseline)
Tanjay City	70,169	24	9	27,605	2.5	14,533 (53%)	3,000	23	2 (5)		4th	231.76 (46..352)	5,375,000 (16% from 4% baseline)
Bindoy	**34,773**	**22**	**4**	**19,932**	**1.7**	**10,736 (54%)**	**None**	**10.5**	**5 (59.7)**	**farming, fishing**	**4th**	**41.00 (8.2)**	**700,000 (8%)**
Ayungon	**40,744**	**24**	**5**	**24,744**	**1.6**	**18,441 (74%)**	**None**	**16**	**7 (147.24)**	**farming**	**3rd**	**47.52 (9.504)**	**1,975,000 (21%)**

Table 18. Type and period of assistance received by Central Visayas LGUs in 2003-2007

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
CEBU:						
Pilar	None	May 2005-present	None	PLAN (FA, TA), DENR 7 (TA)	PLAN (FA, TA), BFAR (TA), DENR-PASU (mangrove refo), Prov. Agric. Office (MOEE), ELAC (legal)	PLAN (TA, FA)
Poro	None	Feb. 2003- present (CRM planning, MPA)	None	PLAN (FA) & DENR (TA) on watershed mgt.	JICA (livelihood), USPCV (TA, FA), PLAN (FA), BFAR (TA, livelihood), IMA (livelihood), Prov. Govt (FA)	PLAN (TA, FA)
Toledo City	2003-present	2003 to ___	2003-present (ISWM plan)	Atlas Commission	BFAR (livelihood)	
Alcoy	FLUP, co-mgt	None	None		CCEFI	
Compostela	None	2003-present	2003-present	RAFI, CUSW, MFI, PCEEM, PAWB	NAMRIA (mun water delineation)	
Balamban	Ecogov Grant (abaca production)	2003-present (CRM, MPA)	None	DENR (seedlings, tree planting), PBSP (seedlings & labor for tree planting), THI (mangrove planting), CBRMP, JBIC, CBCF	DENR (TA- coral reef, MPA), Province (TA), CCEF (TA), BFAR (TA, livelihood, aquaculture), CIPD Aboitiz (mangrove refo), RFIC	DENR-MGB (TA), PLGU (equipment), NSWMC (TA, THI (TA), Province-Water Task Force (TA for wastewater)
San Francisco	None	2002-present (Fisheries, MPA, IEC TA)	May 2007-present	Dep Ed & DA (tree planting), Gwen Project, PLAN Philippines	Plan International (FA), 2 Provincial Board Members (FA), MAC (TA), Reef Check	PLAN (FA), DENR-EMB (permit), National Power Corporation (waste bins)
Dalaguete	April 2003-present (FLUP, co-mgt)	None but a grant awarded to CCEF		CBCF (biodiversity), DENR (TA)	CCEF, CRMP, BFAR, NAMRIA, UP, DENR, PPDO, CLEAR 7	Mag-uugmad Foundation (TA), & PACAP (composting, SLF), AUSAID (financial), Center for Int'l Migration-Germany (TA), DENR (TA), PLGU (equipment)
Tudela	None	2003-Aug. 2007 (CRM planning, fisheries planning, MPA)	None	DENR (TA) & PLAN (FA) in watershed mgt.planning, SM ISLE (seedlings, TA),	PLAN (FA), DENR (TA), BFAR(TA), ELAC (legal & financial)	PLAN (TA, FA), Province (FA)
Moalboal	None	March 2007 (MPA Networking), indirect TA thru grant to CCEF (coral assessment, strengthening of MPA)	None	DENR & Province (seedlings)	BFAR, GDS, & Province (livelihood); CCEF (Training, IEC materials); Scotia (training), Tambuyog (educational asstn.), DENR (propagules); CRMP (CRM Plan), Congressional Devt Fund (patrol boat), Prov. Board Member (repair of guardhouse), SEACOLOGY (guarding), PNP-Maritime (Enforcement Support)	SCOTIA (FA and TA), Province (FA), DENR-EMB (TA)
Carmen	None	2006-present (MPA establishment)	None	DENR (TA on watershed mgt. planning)	World Vision (FA), BFAR (TA), Knights of Columbus (coastal clean up)	Province ENRO (TA, clustering)
Danao City	None	Fisheries, MPA establ	March 2003-present	DENR (mangrove planting materials, TA)	Province (equipment), BFAR (enforcement), DENR (propagules)	DENR (TA), Provincial ENRO (TA)

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
BOHOL						
Talibon	2002-present, (FLUP, Co.-Mgt)	**EcoGov** (mangrove co-mgt, 2002-Sept. 2004	**EcoGov** (2002-present, ISWM Plan)	?	FISH/BEMO, Project Seahorse	?
Panglao	Not applicable	None	**EcoGov** (April 2003-Dec. 2003- waste characterization)	Bohol Marine Triangle (UNDP), Padawon, CRFC/WWF (USAID), SCOTIA (USAID)	?	?
San Miguel	2002-present	Not applicable	None	DENR, PAMB	not applicable	?
Maribojoc	None	None	2002-present, ISWM plan, Brgy. IEC	DENR (reforestation, CBFMA), PROCESS (mangrove & CBFMA), BIDEF (Community Organizing)	CRMP, PROCESS, Phil-German (livelihood), DENR, BFAR (deputization), Prov'l Agriculture Office, BEMO	?
Cortes	None	None	2003-present	DENR-PROCESS (mangrove refo, CBFMA)	BEMO (TA), PROCESS (CBFMA), BFAR (livelihood), CLEC 1 (PNP, DENR, BFAR, etc.	?
Jagna	None	Aug 2006-presemt (upscaling thru the BEMO of province)	2003-present	?	CRMP (proposal packaging), DENR (bio-assessment), NAMRIA (mun. water delineation), BFAR (equipment, TA), BEMO (TA)	BEMO (TA on MRF), DENR (site ID), SWCF (mapping of waterways)
Corella	None	Not applicable	April 2003-present	DENR (TA), PTCFC (tarsier habitat restoration), SWCF (in 2005) DENR (rattan planting), Feed the Children (SALT)	Not applicable	?
Duero	None	Upscaling TA on MPA thru BEMO (Aug. 2006-present)	2003-2007	CBRMP in 2004, DENR (ISF and CBR), SWCF	BFAR (livelihood, PCRA, MPA), CBRMP	PLGU- MRF
Dauis	Not applicable	None	2003-present	Not applicable	Bohol Marine Triangle, PROCESS Fisheries Devt. Program, WWF/CRFC PATH, PACAP Dauis Marine Conservation Project,	BEMO, SCOTIA PCAP, ISMT
SIQUIJOR						
Lazi	none	May 2007 (MPA strengthening)	none	DENR (TA, seedlings, materials); Congressman (FA)	CCEF (TA; Prov. Govt (livelihood), Congressman (livelihood, cross-visits), DENR (TA, seedlings); BFAR (TA; TMF (TA); Lazi Based Resources Devt, (livelihood); RFTC (livelihood); PNP (enforcement), MARINA, San Juan Dive Resort (coastal clean-up); USPCV (TA), other neighboring LGUs	NPC (trash receptacle); DENR (TA)
Siquijor	None	April 2007-present MPA strengthening & networking	None	Province, DENR (seedlings); TMF (mangrove), Congressman (creeks, embankment), SCORE (technical), St. Catherine Family Helpers (FA)	SIRECOR/St. Catherine Family Helpers (FA, TA), SCORE/CCEF (FA, TA), CERNET & Province (TA &FA), DENR (planting materials), USPCV (TA, BFAR (Livestock, training)	DENR-PENRO and EMB (TA)
NEGROS ORIENTAL:						

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
Dauin	March 2003-present (FLUP, Co-Mgt)	None	March 2003-present	DENR (TA), ENRD (TA), PNOC (financial, TA), Ting Matiao (TA), Silliman Univ, CENTROP (training)	ENRD (TA, IEC), PATA Foundation, BFAR (deputization), CCFI (TA), CRMP (TA)	ENRD (Province), DENR (TA)
Bais City	March 2003-present-FLUP, Co-Mgt)	None	March 2003-present (ISWM Plan)	DENR (TA)	British Embassy, WWF, Tañon Strait Commission, ENRD, Toytoya Foundation, Silliman Univ, CRMP, BFAR, DENR, Ikaw-Ako Japanese Foundation	ENRD (Province); GDS (TA), SWAPP (TA)
Bayawan City	**EcoGov** (March 2003-present- FLUP, co-mgt	None	March 2003-present-ISWM Plan)	DENR, NCIP	CRMP, BFAR (Patrol Boat, Bantay Dagat), NAMRIA, ENRD, Univ. of Miami, Ting Matiao Foundation, DENR	ENRD (Province), GTZ, SWAPP, BREMEN (wastewater technology seminar)
San Jose	None	None	2003-present	Provincial DA (fruit tree seedlings, CO), DENR (mangrove seedlings), SU-CENTROP, PLGU (TA)	ENRD/GDS (biophysical M&E, TA), CRMP (TA); DENR, DA (TA, livelihood)	ENRD (Province), DENR (TA), GOLD-ARD (TA)
La Libertad	March 2003-present (FLUP, co-mgt, IPR, tenure assessment)	None	None	CBRM (infra), DENR (reforestation)	St. Catherine Family Helper, Inc.	St. Catherine Family Helper, Inc., ENRD (Province), DENR (TA)
Amlan	None	None	2003-present	ENRD (seedlings), DENR-CENRO (seedlings)	DA-RFTC (technology training, patrol boats), CRMP (TA), PLGU (CO, patrol boats, nets, bouys),	DENR, ENRD, CALTEX (waste drums)
Sta. Catalina	2003-present	None	2003-present	?	?	?
Tanjay	March 2003-present (FLUP, co-mgt)	None	March 2003-present (ISWM Plan)	DENR	SU Marine Lab, Ting Matiao Foundation, ENRO, CRMP, BFAR	?
Pamplona	None	Not applicable	Yes (period?)	DENR (TA), Center for Tropical Program (TA), PNOC (Tree planting)	not applicable	Pamplona Watershed and Sanitation Incorporated
Bindoy	None	2006-present (MPA planning)	None	DENR (TA), World Bank (FA), ENRD (TA), BFAR (TA, FA)	ENRD/Province (FA, TA), DA-BFAR (TA, livelihood), DOF/WorldBank, CVRM (FA), St. Catherine Family Helper, Inc.,	European Union thru ENRD
Ayungon	None	2006-present (MPA)	None	DENR (seedlings), CBRMP (FA & TA)	ENRD (TA, livelihood); DENR (TA, contract refo); BFAR (TA, livelihood), WB-CBRM (FA, TA), US Peace Corp Volunteer (TA)	ENRD- (TA, Plan formulation), DENR-EMB (TA, evaluation)

Table 19. Average yearly allocation on FFM, CRM and UEM of Central Visayas LGUs in 2006-2007 (Data in parenthesis are for 2004-2005)

LGU	Averate Annual FFM Budget (Php) ('06-'07)	Average Annual CRM Budget (Php) ('06-'07)	Average Annual UEM Budget (Php) ('06-'07)	FFM* (Php/ ha/y)	CRM** (PhP/km)	UEM*** (Php/ pax)
CEBU						
Pilar	225,000	150,000 (166,000)	50,000 (87,500)	1,000	5,769 (5,187)	5 (8)
Toledo City	(500,000)	(500,000)	575,000	(83)	(18,519)	4
Alcoy	250,000	175,000	150,000	50	22,436	11
Compostela	(0)	(200,000)	1,225,000 (400,000)	(0)	(40,000)	39 (13)
San Francisco	(92,500)	(262,500)	1,000,000 (337,500)	(75)	(10,858)	24 (8)
Dalaguete	450,000 (200,000)	300,000 (200,000)	(300,000)	6 (27)	19,595 (13,072)	(5)
Danao City	ND	ND	750,000	ND	ND	8
Balamban	(4,300,000)	(50,000)	ND	(501)	(2,381)	ND
Poro	ND	(125,000)	(125,000)	ND	(3,125)	(3,125)
Tudela	(50,000)	(262,500)	(0)	(394)	(17,045)	(0)
BOHOL						
Talibon	(150,000)	(0)	325,000 (300,000)	(31)	ND	6 (6)
Panglao	(0)	ND	100,000	ND	ND	5
Maribojoc	0 (39,391)	200,000 (235,360)	500,000 (489,000)	105 (34)	20,000 (23,540)	30 (16)
Cortes	(40,000)	(65,000)	435,000 (250,000)	(280)	(21,667)	34 (20)
Jagna	(35,000)	(362,500)	400,000	(12)	(25,893)	13
Corella	(25,000)	NA	87,500 (125,000)	(187)	NA	15 (21)
Duero	(3,000,000)	(2,500,000)	500,000 (100,000)	(1,139)	(357,143)	30 (6)
Dauis	(0)	(133,000)	366,000	ND	(6,650)	14
N. ORIENTAL						
Dauin	425,000 (150,000)	3.5 M (150,000)	1,075,000 (75,000)	81 (57)	350,000 (15,000)	51 (4)
Bais City	3.0M (37,500)	2.3 M (77,350)	2,425,000 (3,000,000)	530 (7)	82,143 (2,762)	36 (44)
Bayawan City	11.61M (9.9M)	1.3 M (2.35 M)	8,203,000 (9.2 M)	586 (500)	21,667 (39,167)	81 (91)
San Jose	(0)	(124,500)	378,000	ND	(17,535)	24
La Libertad	225,000 (550,000)	175,000 (137,500)	216,310 (100,000)	40 (197)	21,084 (16,566)	6 (3)
Amlan	(30,000)	(150,000)	400,000 (50,000)	(31)	(21,127)	12 (3)
Sta. Catalina	(1,000,000)	(150,000)	851,000 (50,000)	(53)	(5,769)	44 (2)
Tanjay City	(275,000)	(525,000)	2,000 (1,050,000)	(19)	(22,826)	(15)
Bindoy	ND	ND	4,100,00	ND	ND	58

* average of 2006 and 2007 budget divided by the size of forestland (in ha), figure in parenthesis is for 2004-2005

** average of 2006-2007 budget divided by the length (in km) of coastline, figure in parenthesis is for 2004-2005

*** average of 2006-2007 budget divided by the latest population, figure in parenthesis is for 2004-2005

Table 20. Summary Mid-term Environmental Governance Indices for Central Visayas LGUs

Province & Municipality	By Specific Sector				By Governance Principle, Across Sectors				By Governance Function, Across Sectors						Overall LGU Index
	FFM	*CRM*	*UEM*	*LIM*	*F*	*T*	*A*	*P*	*Plng*	*Laws*	*Issu*	*Bdgt*	*Proc*	*Cros*	
Cebu (12 LGUs)															
Pilar	0.27	1.00	0.38	0.67	0.66	0.80	0.20	0.30	0.50	0.58	1.00	1.00	0.67	0.56	**0.58**
Poro	0.53	0.88	0.25	0.78	0.47	0.80	0.80	0.70	0.61	0.33	0.33	1.00	0.67	0.89	**0.60**
Toledo City	0.87	1.00	0.75	0.89	0.84	1.00	1.00	0.80	0.96	0.58	1.00	1.00	0.67	1.00	**0.88**
Alcoy	0.93	1.00	0.63	1.00	0.84	0.90	0.56	0.90	0.89	0.67	1.00	1.00	1.00	1.00	**0.88**
Compostela	0.20	0.88	1.00	0.89	0.78	0.70	0.60	0.70	0.79	0.67	0.33	1.00	1.00	0.67	**0.74**
Balamban	0.67	0.88	0.94	0.67	0.81	0.80	0.60	0.90	0.93	0.58	0.67	1.00	0.67	0.78	**0.81**
San Francisco	0.53	1.00	0.75	0.67	0.72	0.90	0.40	0.90	0.64	1.00	0.67	1.00	0.67	0.78	**0.75**
Dalaguete	1.00	1.00	0.81	1.00	0.94	1.00	1.00	0.90	0.96	0.83	1.00	1.00	1.00	1.00	**0.95**
Tudela	0.27	1.00	0.56	0.78	0.72	0.70	0.20	0.60	0.68	0.33	1.00	1.00	1.00	0.67	**0.65**
Moalboal	**0.53**	**0.88**	**0.81**	**0.67**	**0.72**	**0.70**	**0.60**	**0.90**	**0.71**	**0.92**	**0.33**	**1.00**	**0.67**	**0.67**	**0.74**
Carmen	0.47	1.00	0.19	0.89	0.66	0.60	0.60	0.50	0.50	0.58	1.00	1.00	0.67	0.78	**0.61**
Danao City	0.87	1.00	1.00	0.78	0.94	1.00	0.60	1.00	0.93	1.00	1.00	1.00	1.00	0.78	**0.93**
Mean	**0.59**	**0.96**	**0.67**	**0.81**	**0.76**	**0.83**	**0.60**	**0.76**	**0.76**	**0.67**	**0.78**	**1.00**	**0.81**	**0.80**	**0.76**
Bohol (9 LGUs)															
Talibon	1.00	1.00	0.94	1.00	0.97	1.00	1.00	1.00	0.96	1.00	1.00	1.00	1.00	1.00	**0.98**
Panglao	NA	0.71	0.69	0.67	0.61	0.75	0.75	0.86	0.68	0.63	0.67	1.00	0.00	1.00	**0.69**
San Miguel	1.00	NA	0.63	0.89	0.86	0.86	0.75	0.71	0.79	0.75	1.00	1.00	1.00	0.86	**0.83**
Maribojoc	0.87	1.00	1.00	1.00	0.94	1.00	1.00	1.00	0.93	1.00	1.00	1.00	1.00	1.00	**0.96**
Cortes	0.80	0.71	1.00	0.67	0.81	0.90	0.40	0.90	0.82	0.92	0.33	1.00	0.67	0.78	**0.81**
Jagna	0.80	0.71	1.00	0.89	0.88	0.80	1.00	0.70	0.82	0.75	1.00	1.00	0.67	1.00	**0.84**
Corella	0.33	NA	0.81	0.56	0.64	0.71	0.25	0.43	0.63	0.38	1.00	1.00	0.33	0.57	**0.58**
Duero	0.60	0.94	0.81	0.67	0.78	0.90	0.40	0.80	0.82	0.67	0.67	1.00	0.67	0.78	**0.77**
Dauis	NA	0.82	0.81	0.56	0.83	0.75	0.50	0.71	0.79	0.88	0.67	1.00	0.33	0.71	**0.76**
Mean	**0.77**	**0.84**	**0.85**	**0.77**	**0.81**	**0.85**	**0.67**	**0.79**	**0.81**	**0.77**	**0.81**	**1.00**	**0.63**	**0.86**	**0.80**
Siquijor (2 LGUs)															
Lazi	**0.40**	**1.00**	**0.75**	**0.67**	**0.72**	**0.90**	**0.40**	**0.70**	**0.75**	**0.50**	**1.00**	**1.00**	**0.67**	**0.78**	**0.72**
Siquijor	**0.67**	**1.00**	**0.75**	**0.67**	**0.81**	**1.00**	**0.40**	**0.70**	**0.75**	**0.83**	**1.00**	**1.00**	**0.67**	**0.78**	**0.79**
Mean	**0.54**	**1.00**	**0.75**	**0.67**	**0.77**	**0.95**	**0.40**	**0.70**	**0.75**	**0.67**	**1.00**	**1.00**	**0.67**	**0.78**	**0.76**

Province & Municipality	By Specific Sector				By Governance Principle, Across Sectors				By Governance Function, Across Sectors						Overall LGU Index
	FFM	*CRM*	*UEM*	*LIM*	*F*	*T*	*A*	*P*	*Plng*	*Laws*	*Issu*	*Bdgt*	*Proc*	*Cros*	
Negros Oriental (11 LGUs)															
Dauin	0.67	1.00	0.81	0.89	0.81	1.00	0.80	0.80	0.89	0.67	1.00	1.00	1.00	0.78	**0.84**
Bais City	0.80	0.94	0.88	0.67	0.88	1.00	0.60	0.70	0.89	0.75	1.00	1.00	0.67	0.78	**0.84**
Bayawan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Jose	0.67	0.94	0.88	1.00	0.81	1.00	1.00	0.80	0.89	0.58	1.00	1.00	1.00	1.00	**0.86**
La Libertad	1.00	1.00	0.56	0.78	0.81	1.00	0.80	0.80	0.86	0.83	0.67	1.00	0.67	0.89	**0.84**
Amlan	0.73	0.94	0.81	0.78	0.84	0.80	0.60	0.90	0.89	0.67	0.67	1.00	1.00	0.78	**0.82**
Sta. Catalina	0.93	0.94	0.50	1.00	0.75	0.90	1.00	0.90	0.82	0.67	0.67	1.00	1.00	1.00	**0.82**
Tanjay	0.73	1.00	0.50	0.67	0.78	0.80	0.40	0.70	0.79	0.50	1.00	1.00	0.67	0.78	**0.74**
Pamplona	0.67	NA	0.75	0.56	0.68	0.86	0.33	0.71	0.68	0.63	1.00	1.00	0.33	0.71	**0.68**
Bindoy	**0.67**	**0.76**	**0.44**	**0.56**	**0.66**	**0.60**	**0.60**	**0.50**	**0.75**	**0.33**	**0.33**	**1.00**	**0.67**	**0.56**	**0.61**
Ayungon	**0.53**	**0.65**	**0.25**	**0.78**	**0.50**	**0.60**	**0.20**	**0.70**	**0.50**	**0.33**	**0.33**	**1.00**	**1.00**	**0.67**	**0.53**
Mean	**0.76**	**0.83**	**0.67**	**0.79**	**0.77**	**0.87**	**0.67**	**0.77**	**0.81**	**0.63**	**0.79**	**1.00**	**0.82**	**0.81**	**0.80**

Table 21. Comparison of baseline and mid-term GSA results for assisted LGUs in Central Visayas [12]

Province/ LGU	Indices										Change in Category
	FFM		CRM		UEM		Internal Management		Over-all		
	Baseline	Mid-term	Baseline	Mid-term	Baseline	Mid-Term	Baseline	Mid-Term	Baseline	Mid-term	
CEBU (12)											
Pilar	Not assessed	0.27	0.82	1.00	0.38	0.38	0.56	0.67	0.60	0.58	C4 to C4
Poro	0.20	0.53	0.88	0.88	0.25	0.25	0.89	0.78	0.53	0.60	C4 to C4
Toledo City	0.47	0.87	1.00	1.00	0.69	0.75	0.78	0.89	0.74	0.88	C2 to C1
Alcoy	0.93	0.93	0.88	1.00	0.69	0.63	0.44	1.00	0.77	0.88	C1 to C1
Compostela	0.60	0.20	0.65	0.88	0.94	1.00	0.67	0.89	0.72	0.74	C2 to C4
Balamban	0.47	0.67	0.71	0.88	0.75	0.94	0.44	0.67	0.61	0.81	C2 to C1
San Francisco	0.53	0.53	0.88	1.00	0.88	0.75	0.78	0.67	0.77	0.75	C1 to C1
Dalaguete	1.00	1.00	1.00	1.00	0.88	0.81	0.78	1.00	0.96	0.95	C1 to C1
Tudela	0.20	0.27	0.82	1.00	0.13	0.56	0.56	0.78	0.42	0.65	C4 to C4
Carmen	0.67	0.47	0.94	1.00	0.25	0.19	0.89	0.89	0.68	0.61	C4 to C4
Danao City	0.13	0.87	0.88	1.00	0.75	1.00	0.89	0.78	0.65	0.93	C4 to C1
Mean Old LGUs	**0.52**	**0.60**	**0.86**	**0.97**	**0.60**	**0.66**	**0.70**	**0.82**	**0.68**	**0.76**	
Moalboal	**Not Assessed**	**0.53**	**Not Assessed**	**0.88**	**Not Assessed**	**0.81**	**Not Assessed**	**0.67**	**Not Assessed**	**0.74**	**C2**
BOHOL (9)											
Talibon	1.00	1.00	0.88	1.00	0.31	0.94	0.56	1.00	0.70	0.98	C2 to C1
Panglao	NA	NA	0.59	0.71	0.75	0.69	0.22	0.67	0.57	0.69	C4 to C2
San Miguel	0.87	1.00	NA	NA	0.31	0.63	0.67	0.89	0.60	0.80	C4 to C1
Maribojoc	0.8	0.87	1.00	1.00	0.69	1.00	0.78	1.00	0.82	0.96	C1 to C1
Cortes	0.53	0.80	0.47	0.71	0.69	1.00	0.44	0.67	0.54	0.81	C2 to C1
Jagna	0.67	0.80	0.71	0.71	1.00	1.00	0.89	0.89	0.81	0.84	C1 to C1
Corella	0.40	0.33	NA	NA	0.56	0.81	0.67	0.56	0.53	0.58	C2 to C4
Duero	0.47	0.60	0.88	0.94	0.50	0.81	0.56	0.67	0.61	0.77	C2 to C1
Dauis	NA	NA	0.53	0.82	0.50	0.81	0.56	0.56	0.52	0.76	C2 to C1
Mean Old LGUs	**0.68**	**0.77**	**0.72**	**0.84**	**0.59**	**0.85**	**0.59**	**0.77**	**0.63**	**0.83**	
SIQUIJOR (2)											
Lazi	**Not Assessed**	**0.40**	**Not Assessed**	**1.00**	**Not Assessed**	**0.75**	**Not Assessed**	**0.67**	**Not Assessed**	**0.72**	**C2**
Siquijor	**Not Assessed**	**0.67**	**Not Assessed**	**1.00**	**Not Assessed**	**0.75**	**Not Assessed**	**0.67**	**Not Assessed**	**0.79**	**C1**
N. ORIENTAL (11)											
Dauin	1.00	0.67	1.00	1.00	0.81	0.81	0.67	0.89	0.89	0.84	C1 to C1
Bais	0.93	0.8	0.29	0.94	0.69	0.88	0.67	0.67	0.63	0.84	C4 to C1
Bayawan City	0.87	1.00	1.00	1.00	0.94	1.00	0.67	1.00	0.89	1.00	C1 to C1
San Jose	0.33	0.67	1.00	0.94	0.94	0.88	0.89	1.00	0.79	0.86	C1 to C1
La Libertad	1.00	1.00	0.76	1.00	0.25	0.56	0.67	0.78	0.67	0.84	C4 to C1
Amlan	0.33	0.73	0.88	0.94	0.63	0.81	0.78	0.78	0.65	0.82	C4 to C1
Sta. Catalina	0.47	0.93	0.88	0.94	0.63	0.50	0.67	1.00	0.67	0.82	C2 to C1
Tanjay	1.00	0.73	1.00	1.00	0.44	0.50	0.56	0.67	0.77	0.74	C1 to C2
Pamplona	0.07	0.67	NA	NA	0.88	0.75	0.44	0.56	0.48	0.68	C4 to C2
Mean "Old LGUs"	**0.67**	**0.80**	**0.85**	**0.97**	**0.69**	**0.74**	**0.67**	**0.82**	**0.72**	**0.83**	
Bindoy	**Not Assessed**	**0.67**	**Not Assessed**	**0.76**	**Not Assessed**	**0.44**	**Not Assessed**	**0.56**	**Not Assessed**	**0.61**	**C2**
Ayungon	**Not Assessed**	**0.53**	**Not Assessed**	**0.65**	**Not Assessed**	**0.27**	**Not Assessed**	**0.78**	**Not Assessed**	**0.53**	**C4**

[12] LGUs in bold font are 'new LGUs' or were not covered by the baseline assessment in 2005-2006

Table 22. Forest and forestland management (FFM) specific indices of LGUs in Central Visayas

PROVINCE/LGU	PRINCIPLE				FUNCTION			FFM Index
	F	*T*	*A*	*P*	*Plng*	*Laws*	*Cros*	
CEBU (12 LGUS)								
Dalaguete	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Alcoy	1.00	0.50	1.00	1.00	1.00	0.75	1.00	**0.93**
Toledo City	0.78	1.00	1.00	1.00	1.00	0.50	1.00	**0.87**
Danao City	0.78	1.00	1.00	1.00	0.78	1.00	1.00	**0.87**
Balamban	0.56	0.50	1.00	1.00	0.78	0.25	1.00	**0.67**
San Francisco	0.44	0.50	0.00	1.00	0.22	1.00	1.00	**0.53**
Moalboal	**0.44**	**0.50**	**0.00**	**1.00**	**0.33**	**1.00**	**0.50**	**0.53**
Poro	0.44	0.50	1.00	0.67	0.67	0.00	1.00	**0.53**
Carmen	0.56	0.00	0.00	0.67	0.33	0.75	0.50	**0.47**
Pilar	0.44	0.00	0.00	0.00	0.22	0.25	0.50	**0.27**
Tudela	0.44	0.00	0.00	0.00	0.33	0.00	0.50	**0.27**
Compostela	0.33	0.00	0.00	0.00	0.33	0.00	0.00	**0.20**
Mean	0.60	0.46	0.50	0.70	0.58	0.54	0.75	**0.60**
BOHOL (7 LGUS)								
Talibon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Miguel	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Maribojoc	0.78	1.00	1.00	1.00	0.78	1.00	1.00	**0.87**
Cortes	0.78	1.00	0.00	1.00	0.67	1.00	1.00	**0.80**
Jagna	0.67	1.00	1.00	1.00	0.67	1.00	1.00	**0.80**
Duero	0.44	1.00	0.00	1.00	0.56	0.50	1.00	**0.60**
Corella	0.33	0.50	0.00	0.33	0.33	0.25	0.50	**0.33**
Mean	0.71	0.93	0.57	0.90	0.72	0.82	0.93	**0.77**
SIQUIJOR (2)								
Siquijor	**0.56**	**1.00**	**0.00**	**1.00**	**0.44**	**1.00**	**1.00**	**0.67**
Lazi	**0.33**	**0.50**	**0.00**	**0.67**	**0.44**	**0.00**	**1.00**	**0.40**
Mean	0.45	0.75	0.00	0.84	0.44	0.50	1.00	**0.54**
N. ORIENTAL (11)								
Bayawan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
La Libertad	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Sta. Catalina	0.89	1.00	1.00	1.00	0.89	1.00	1.00	**0.93**
Bais City	0.78	1.00	1.00	0.67	0.89	0.50	1.00	**0.80**
Amlan	0.78	0.50	1.00	0.67	0.89	0.25	1.00	**0.73**
Tanjay	0.67	1.00	0.00	1.00	0.78	0.50	1.00	**0.73**
San Jose	0.56	1.00	1.00	0.67	0.67	0.50	1.00	**0.67**
Dauin	0.67	1.00	1.00	0.33	0.89	0.25	0.50	**0.67**
Pamplona	0.56	1.00	0.00	1.00	0.56	0.75	1.00	**0.67**
Bindoy	**0.67**	**0.50**	**1.00**	**0.67**	**0.89**	**0.00**	**1.00**	**0.67**
Ayungon	**0.44**	**0.50**	**0.00**	**1.00**	**0.56**	**0.25**	**1.00**	**0.53**
Mean	0.73	0.86	0.64	0.82	0.82	0.55	0.95	**0.76**

Table 23. Coastal resource management (CRM) specific indices of LGUs in Central Visayas

PROVINCE/LGU	PRINCIPLE				FUNCTION				CRM Index
	F	T	A	P	Planning	Law Enforcement	Permitting	Cross-cutting	
CEBU: (12 LGUS)									
Pilar	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Toledo City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Alcoy	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Francisco	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dalaguete	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tudela	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Carmen	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Danao City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Compostela	0.90	0.67	1.00	1.00	1.00	1.00	0.00	1.00	**0.88**
Balamban	0.90	0.67	1.00	1.00	1.00	0.75	0.50	1.00	**0.88**
Poro	0.80	1.00	1.00	1.00	0.89	1.00	0.50	1.00	**0.88**
Moalboal	**0.90**	**0.67**	**1.00**	**1.00**	**1.00**	**1.00**	**0.00**	**1.00**	**0.88**
Mean	*0.96*	*0.92*	*1.00*	*1.00*	*0.99*	*0.98*	*0.75*	*1.00*	**0.96**
BOHOL (8)									
Talibon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Maribojoc	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Duero	1.00	0.67	1.00	1.00	1.00	1.00	0.50	1.00	**0.94**
Dauis	0.80	0.67	1.00	1.00	0.78	1.00	0.50	1.00	**0.82**
Panglao	0.60	1.00	0.00	1.00	0.56	1.00	0.50	1.00	**0.71**
Cortes	0.60	0.67	1.00	1.00	0.78	0.75	0.00	1.00	**0.71**
Jagna	0.90	0.33	1.00	0.33	0.78	0.25	0.50	1.00	**0.71**
Mean	0.84	0.76	0.86	0.90	0.84	0.86	0.57	1.00	**0.84**
SIQUIJOR (2)									
Lazi	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
Siquijor	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
Mean	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
N. ORIENTAL (10)									
Dauin	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bayawan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
La Libertad	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tanjay	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bais City	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
San Jose	0.90	1.00	1.00	1.00	1.00	0.75	1.00	1.00	**0.94**
Amlan	1.00	0.67	1.00	1.00	1.00	1.00	0.50	1.00	**0.94**
Sta. Catalina	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
Bindoy	**0.70**	**0.67**	**1.00**	**1.00**	**0.78**	**1.00**	**0.00**	**1.00**	**0.76**
Ayungon	**0.60**	**0.67**	**0.00**	**1.00**	**0.67**	**0.75**	**0.00**	**1.00**	**0.65**
Mean	0.90	0.90	0.90	1.00	0.92	0.95	0.75	1.00	**0.92**

Table 24. Urban environmental management (UEM) specific indices of LGUs in Central Visayas

PROVINCE/LGU	PRINCIPLE				FUNCTION				UEM INDEX
	F	T	A	P	Planning	Law Enforcement	Permitting	Cross-cutting	
CEBU									
Danao City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Compostela	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Balamban	0.90	1.00	1.00	1.00	1.00	0.75	1.00	1.00	**0.94**
Moalboal	**0.70**	**1.00**	**1.00**	**1.00**	**0.80**	**0.75**	**1.00**	**1.00**	**0.81**
Dalaguete	0.80	1.00	1.00	0.67	0.90	0.50	1.00	1.00	**0.81**
San Francisco	0.67	1.00	1.00	1.00	0.70	1.00	0.00	1.00	**0.75**
Toledo City	0.70	1.00	1.00	0.67	0.90	0.25	1.00	1.00	**0.75**
Alcoy	0.50	1.00	1.00	0.67	0.70	0.25	1.00	1.00	**0.63**
Tudela	0.60	0.50	0.00	0.67	0.70	0.00	1.00	1.00	**0.56**
Pilar	0.40	1.00	0.00	0.00	0.30	0.50	1.00	0.00	**0.38**
Poro	0.00	0.50	1.00	0.67	0.30	0.00	0.00	1.00	**0.25**
Carmen	0.30	0.00	0.00	0.00	0.20	0.00	1.00	0.00	**0.19**
Mean	*0.63*	*0.83*	*0.75*	*0.70*	*0.71*	*0.50*	*0.83*	*0.83*	**0.67**
BOHOL									
Maribojoc	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Cortes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Jagna	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Talibon	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Corella	0.80	1.00	1.00	0.67	0.90	0.50	1.00	1.00	**0.81**
Duero	0.80	1.00	1.00	0.67	0.90	0.50	1.00	1.00	**0.81**
Dauis	0.80	1.00	1.00	0.67	0.80	0.75	1.00	1.00	**0.81**
Panglao	0.60	0.50	1.00	1.00	0.80	0.25	1.00	1.00	**0.69**
San Miguel	0.70	0.50	1.00	0.33	0.60	0.50	1.00	1.00	**0.63**
Mean	0.84	0.89	1.00	0.82	0.88	0.72	1.00	1.00	**0.85**
SIQUIJOR									
Lazi	**0.70**	**1.00**	**1.00**	**0.67**	**0.80**	**0.50**	**1.00**	**1.00**	**0.75**
Siquijor	**0.80**	**1.00**	**1.00**	**0.33**	**0.80**	**0.50**	**1.00**	**1.00**	**0.75**
Mean	0.75	1.00	1.00	0.50	0.80	0.50	1.00	1.00	**0.75**
N. ORIENTAL									
Bayawan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bais City	0.90	1.00	1.00	0.67	0.90	0.75	1.00	1.00	**0.88**
San Jose	0.90	1.00	1.00	0.67	1.00	0.50	1.00	1.00	**0.88**
Dauin	0.70	1.00	1.00	1.00	0.80	0.75	1.00	1.00	**0.81**
Amlan	0.70	1.00	1.00	1.00	0.80	0.75	1.00	1.00	**0.81**
Pamplona	0.70	1.00	1.00	0.67	0.80	0.50	1.00	1.00	**0.75**
La Libertad	0.40	1.00	1.00	0.67	0.60	0.50	0.00	1.00	**0.56**
Sta. Catalina	0.40	0.50	1.00	0.67	0.70	0.00	0.00	1.00	**0.50**
Tanjay	0.60	0.00	1.00	0.33	0.60	0.00	1.00	1.00	**0.50**
Bindoy	**0.50**	**0.50**	**1.00**	**0.00**	**0.60**	**0.00**	**1.00**	**0.00**	**0.44**
Ayungon	**0.30**	**0.00**	**1.00**	**0.00**	**0.30**	**0.00**	**1.00**	**0.00**	**0.25**
Mean	0.65	0.73	1.00	0.61	0.74	0.43	0.82	0.82	**0.67**

Table 25. LGU Internal management practices (LIM) specific indices of LGUs in Central Visayas

PROVINCE/LGU	PRINCIPLE				FUNCTION			
CEBU:	**F**	**T**	**A**	**P**	**Budgeting**	**Procurement**	**Cross-cutting**	**LIM INDEX**
Alcoy	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dalaguete	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Toledo City	1.00	1.00	1.00	0.00	1.00	0.67	1.00	**0.89**
Compostela	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Carmen	1.00	1.00	1.00	0.00	1.00	0.67	1.00	**0.89**
Danao City	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Poro	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Tudela	1.00	1.00	0.00	0.50	1.00	1.00	0.50	**0.78**
Pilar	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Balamban	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
San Francisco	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Moalboal	**1.00**	**0.50**	**0.50**	**0.00**	**1.00**	**0.67**	**0.50**	**0.67**
Mean	1.00	0.96	0.46	0.38	1.00	0.81	0.71	**0.81**
BOHOL								
Talibon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Maribojoc	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Miguel	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Jagna	1.00	1.00	1.00	0.00	1.00	0.67	1.00	**0.89**
Panglao	0.67	0.67	1.00	0.00	1.00	0.00	1.00	**0.67**
Cortes	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Duero	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Corella	1.00	0.67	0.00	0.00	1.00	0.33	0.50	**0.56**
Dauis	1.00	0.67	0.00	0.00	1.00	0.33	0.50	**0.56**
Mean	0.96	0.89	0.50	0.33	1.00	0.63	0.75	**0.77**
SIQUIJOR								
Lazi	**1.00**	**1.00**	**0.00**	**0.00**	**1.00**	**0.67**	**0.50**	**0.67**
Siquijor	**1.00**	**1.00**	**0.00**	**0.00**	**1.00**	**0.67**	**0.50**	**0.67**
Mean	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
N. ORIENTAL								
Bayawan City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
San Jose	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Sta. Catalina	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dauin	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
La Libertad	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Ayungon	**1.00**	**1.00**	**0.00**	**1.00**	**1.00**	**1.00**	**0.50**	**0.78**
Amlan	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Bais City	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Tanjay	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Pamplona	1.00	0.67	0.00	0.00	1.00	0.33	0.50	**0.56**
Bindoy	**1.00**	**0.67**	**0.00**	**0.00**	**1.00**	**0.67**	**0.25**	**0.56**
Mean	1.00	0.94	0.36	0.55	1.00	0.82	0.66	**0.79**

Table 26. LGUs with improved/higher level practices in FFM, CRM, and UEM in Central Visayas

Province	FFM (% of Total LGUs)	CRM (% of Total LGUs)	UEM (% of Total LGUs)
Cebu	Toledo City, Alcoy, Balamban, Dalaguete, Danao City **(42%)**	Poro, Toledo City, Alcoy, Compostela, Balamban, San Francisco, Dalaguete, Pilar, Tudela, Moalboal, Carmen **(92%)**	Toledo City, Alcoy, Compostela, Balamban, San Francisco, Dalaguete, Danao City **(58%)**
Bohol	Talibon, San Miguel, Maribojoc, Cortes, Jagna, Dauis **(86%)**	Talibon, Panglao, Maribojoc, Cortes, Jagna, Dauis, Duero **(88%)**	Talibon, Panglao, San Miguel, Maribojoc, Cortes, Jagna, Dauis, Duero **(89%)**
Siquijor	None **(0%)**	Siquijor, Lazi **(100%)**	None **(0%)**
Negros Oriental	Sta. Catalina, Dauin, Bais City, Bayawan City, San Jose, La Libertad, Tanjay City, Pamplona **(73%)**	Sta. Catalina, Bais City, Bayawan City, San Jose, La Libertad, Amlan, Tanjay City **(70%)**	Sta. Catalina, Dauin, Bais City, Bayawan City, San Jose, La libertad, Amlan, Tanjay City, Pamplona **(82%)**
Total	19 **(56%)**	27 **(87%)**	24 **(71%)**

Table 27. Perceived outcomes/results of improved governance

Sector/Higher Level Practices	LGUs with these experiences	Frequency (% of Assessed LGUs)
FFM		
Improved forest cover	Toledo City, Alcoy, Balamban, Dalaguete, Talibon, San Miguel, Duero, Sta. Catalina, Dauin, Bais City, Bayawan City, Tanjay City	13 **(39%)**
Improved biodiversity, quality of forest cover	Toledo City, Alcoy, Sta. Catalina, Dalaguete, San Miguel, Sta. Catalina, Tanjay City	7 **(22%)**
Reduction in illegal activities/threats	Toledo City, Alcoy, Jagna, Sta. Catalina, Bais City, Tanjay City	6 **(19%)**
Prevention of open access to forestland	Cortes, Sta. Catalina, Dauin, Bayawan City, Tanjay City	5 **(16%)**
Improved income and revenue generation	Balamban (Brgy. Magsaysay), Dalaguete, Sta. Catalina, Bayawan City	4 **(12%)**
Forest conversion stopped or reduced	Alcoy, San Miguel, Sta. Catalina	3 **(10%)**
CRM		
Improved status of resources such as mangrove, corals, seagrass, and general biodiversity in MPAs	Toledo City, Alcoy, Balamban, San Francisco, Dalaguete, Carmen, Danao City, Lazi, Dauin, San Jose, La Libertad,	11 **(35%)**
Reduction of destructive and illegal fishing activities	Toledo City, Alcoy, Balamban, San Francisco, Dalaguete, Lazi, Talibon, Maribojoc, Dauin, La Libertad, Tanjay City	11 **(32%)**
Enhanced fish production/abundance/size especially in immediate vicinity of marine sanctuary	Toledo City, Alcoy, Balamban, San Francisco, Dalaguete, Danao City, Jagna, Dauin, La Libertad	9 **(29%)**
Cleaner coastal areas	Toledo City, Alcoy, San Francisco, Dalaguete, Danao City, Lazi, Jagna, Dauin, La Libertad	9 **(29%)**
Enforced coastal zones	Toledo City, Alcoy, San Francisco, Dalaguete, Danao City, Lazi, Jagna, Dauin, La Libertad	9 **(29%)**
Recognition/Award received	Toledo City, Alcoy, Dalaguete, Dauin, La Libertad	5 **(16%)**
Increased apprehension due to effective enforcement	Balamban, Dalaguete, Lazi , Tanjay City	4 **(13%)**

Sector/Higher Level Practices	LGUs with these experiences	Frequency (% of Assessed LGUs)
UEM		
More efficient waste collection and transport	Alcoy, San Francisco, Dalaguete, Talibon, San Miguel, Jagna, Dauin, Bais City, Bayawan City, La Libertad, Tanjay City	11 **(32%)**
Wider collection area	Toledo City, Alcoy, San Francisco, Talibon, San Miguel, Sta. Catalina, Dauin, Bais City, Bayawan City, La Libertad, Tanjay City	11 **(32%)**
Reduction in street litter, improved aesthetics	Alcoy, San Francisco, Talibon, San Miguel, Sta. Catalina, Dauin, Bais City, Bayawan City, La Libertad, Tanjay City	10 **(29%)**
Reduced incidence of violations	San Francisco, Danao City, Talibon, Jagna, Dauin	5 **(15%)**
Award received for being clean	San Francisco, San Miguel, Sta. Catalina, Dauin, Bayawan City	5 (**15%)**
Revenues generated from users' fee	Talibon, Jagna, Dauin	3 **(9%)**
Reduction in air, water, and land pollution sources in the disposal area	Bais City, Bayawan city	2 **(6%)**

Table 28. Common deteriorations in 'best practices' of LGUs in Central Visayas

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
FFM	none	
FLUP was not finalized	Poro	
CRM		
TWG stopped functioning	Dauis	
Percent of Total Assessed LGUs	**3%**	
UEM		
Draft plan not finalized	Pilar, Tudela	No reason was provided
MSWMB stopped being functional	Dauis	Budget not sustained due to politics (MPDC took over the task)
Percent of Total Assessed LGUs	**9%**	

11.0 SOUTH AND CENTRAL MINDANAO INDICES: STATE, TRENDS AND DETERMINANTS

The midterm GSA in South and Central Mindanao covered a total of twenty one (21) LGUs distributed across five provinces: North and South Cotabato, Sarangani, Sultan Kudarat and Lanao del Sur. One LGU (Davao City) is a chartered City. Four LGUs (Bagumbayan, Sen. Ninoy Aquino, Tampakan, and Alabel) participated in the GSA for the very first time, 17 are 'old LGUs' or those that conducted their baseline GSA either in 2005 (11 LGUs) or in 2006 (6 LGUs).

11.1 Updated Profile of LGUs Covered

South and Central Mindanao LGUs are major contributors to food and fiber security in the country. They are among the country's top producers of agricultural and fish products, with agri-plantations and canning factories producing both for local and foreign markets. Important watersheds and protected areas like the world-famous Mt. Apo Natural Park are found in this geographic region, and producing multiple ecological and economic benefits in the form of water, energy, biodiversity, and ecotourism. Mining is an important environmental issue that divides the people in this area.

The region is also a melting pot in terms of both culture and religion. It is home to various IP groups (Blaan, Tboli, Ubo, Bagobo-Tagabawa, Teduray) and Muslims (Maguindanao, Maranao) and Christians alike, a situation that adds to the complexity and challenges of environmental governance in the area.

Solid waste management is a fast growing issue as five of the 21 LGUs covered by the mid-term GSA are cities and nine are relatively well-off first and second class municipalities. Other things being equal, urban lifestyle and affluence tend to produce large volume of liquid and solid wastes. Forest and forestland management is also a pervasive concern as forestlands are large and subject to various anthropogenic threats. They occupy more than 50% of the total land area in half of the LGUs (as high as 91% of total land area of Maasim and 87% in Kalamansig). Coastal and marine conservation is also a pressing matter as all eight coastal LGUs strive to address threats caused by illegal and destructive fishing and enhance their coastal and marine revenues.

The diversity in terms of financial capability is apparent from the wide range of income classes and IRAs of LGUs that self-assessed in this area **(Table 29)**. Davao City received an average IRA of PhP1.8 billion in 2006 and 2007 while the other first class city (General Santos City) received only an average of PhP0.57 billion IRA for the same period. The three smaller cities received an IRA that ranged from PhP164 million to P282 million. IRAs of the 16 municipalities ranged from as low as PhP 54 million of the lone fifth class Wao to PhP92 million of the richest first class Tboli municipality.

Table 30 shows the names of organizations that provide various technical and financial assistance to each LGU. Unlike the LGUs in NL and CV where numerous other external organizations extended technical and financial support in the management of various

environment sectors, the LGUs in South and Central Mindanao particularly those in Sultan Kudarat and South Cotabato depended mostly on EcoGov 2 assistance since the baseline GSA. UEM was the sector least supported by external organizations apart from EcoGov. As compared with FFM and CRM, this sector is where EcoGov 2 provides technical support to most LGUs in this geographic region.

11.2 Trend in LGU Spending on the Environment

The summary provided below indicates that while greater financial capability allows greater leeway for high income class LGUs to allocate bigger amounts on the environment, financial constraints nothwithstanding, lower income LGUs (as exemplified by fifth class Wao) can prioritize spending on the environment. The biggest spender on the environment both in terms of percentage share of the 20% DF and absolute amount is Koronadal City with total expenditure of PhP 25 million in 2006 and another PhP 18 million in 2007 for both FFM and UEM. In both 2006 and 2007, Koronadal City apportioned two million pesos on FFM, the rest of its environment budget went to improving its UEM.

	Municipal Income Class (No. of LGUs with data)				**City Income Class (No. of LGUs with data)**	
LGU Class	**1st (1 LGU)**	**2nd (3 LGUs)**	**3rd (2 LGUs)**	**5th (1 LGU)**	**3rd (1 LGU)**	**4th (1 LGU)**
Average allocation for the envt. in 2006-2007 (PhP)	1.81 M	928,595	831,250	3.39 M	21.50 M	1.15 M
Average percent Share	12	8	9	31	40	4

Due to limited available data, the trend over time in LGU allocation for the environment using funds from the 20%DF can only be inferred for a few LGUs (see summary below). All four LGUs sustained the practice of budgeting for the environment from their 20%DF. While the environment allocation from 20%DF of Lebak and Kalamansig slightly declined and those of Koronadal and Wao rose by almost 400%, all four LGUs improved their mid-term over-all indices. Again, this affirms the positive effect of sustaining the practice of allocating funds for the environment.

Deteriorations in internally-sourced budgets for a particular sector overtime may occur as LGUs are able to, among others: 1) secure greater external financial assistance, 2) make environment management projects and services self-sustaining through user's fee implementation, 3) implement more efficient fiscal management, and 4) expenses shift to maintaining existing facilities with large upfront costs.

LGU	Average share of environment in 20% DF, 2004-2005	Average share of environment in 20% DF (%), 2006-2007	Baseline over-all Index	Midterm Over-All Index
Lebak	15%	12%	0.74	0.88
Kalamansig	8%	6%	0.63	0.84
Koronadal City	9%	40%	0.78	0.85
Wao	8%	31%	0.60	0.88
Average for All LGUs	10%	22%	0.69	0.86

Data on average yearly budget by sector for 2006-2007 is likewise limited to only a few LGUs (see summary below)**.** All three LGUs (Lebak, Kalamansig and Tacurong) that raised their sector budgets compared to the allocations in 2004-2005 (figures in parenthesis) improved their sector performance. Kidapawan City improved its UEM index as it continued to allocate high level of funds for UEM since the baseline assessment.

LGU	Average Annual FFM Budget (Php) (2006-2007)	Average Annual CRM Budget (Php) ('2006-2007)	Average Annual UEM Budget (Php) ('2006-2007)	FFM (Php/ ha forestland/y)	CRM (PhP/km/yr)	UEM (Php/ capita/yr)
Lebak	375,000	375,000	825,000	16 (41)	16,816 (13,453)	12 (11)
Kalamansig	325,000	187,500	250,000	5 (6)	4,381 (3,505)	4 (2)
Bagumbayan	450,000	NA	ND	10	NA	ND
Koronadal City	2,000,000	NA	19.5 M	262 (28)	NA	146 (79)
Tacurong City	150,000	NA	850,000	1,500	NA	11
Kidapawan City	94,000	NA	477,879 (1.6 M)	16	NA	5 (16)
Tampakan	ND	NA	440,000	ND	NA	14
Tupi	ND	NA	389,500	ND	NA	7
Alabel	37,520	72,000	567,500	1	6,000	9

11.3 Summary Indices

Table 31 summarizes the results of the midterm GSA for all 21 LGUs that self-assessed in South and Central Mindanao. The names of the 15 top-performers or those that registered an over-all index of at least 0.75 are highlighted. Thirteen of these are 'old LGUs', two (Tampakan and Alabel) are 'new LGUs'. The names of the four 'new LGUs' are written in bold font.

The LGUs that relatively underperformed were: Isulan (0.55), Bagumbayan (0.55), Tboli (0.68), Surallah (0.68), Senator Ninoy Aqunio (0.70), and Makilala (0.70). Isulan and Makilala are among the LGUs assisted by EcoGov prior to 2005 in UEM and FFM, respectively. All the other four relatively underperforming LGUs were newly assisted by EcoGov on UEM (Tboli, Surallah) and FFM (Bagumbayan, Sen. Ninoy Aquino) in 2006.

Isulan's high performance in UEM (assisted sector) was offset by the dismal index of 0.13 (from baseline of 0.00) it obtained in the EcoGov unassisted FFM sector. To enable this LGU to improve its over-all environmental governance performance, EcoGov should help it adopt 'best practices' in FFM in as much as forestlands (around 38,000 ha) comprise 70% of its total land area.

The tendency of LGUs to overspecialize in sectors assisted by EcoGov can also be observed in the case of Makilala which obtained perfect index (1.00) in FFM but a low 0.44 in the EcoGov unassisted UEM. This implies a need for the LGU with possible assistance from EcoGov, DENR and other organizations to use experiences in better performing sector/s to improve the underperforming sector/s, a sort of '***intra-LGU upscaling'*** designed for over-specializing LGUs.

LGUs tend to be weakest in accountability in terms of governance principle, and in law enforcement in terms of governance functions, a trend shared with Northern Luzon and Central Visayas LGUs.

Trend in Range of Over-All Indices

Over-all improved performance of South and Central Mindanao LGUs is apparent in the summary table below, which depicts improvement in the ranges and means of over-all indices in all provinces as compared with the baseline values. Fifteen or 71% of all the LGUs covered by the midterm assessment obtained an index of 0.76 and above, none fell below 0.51. During the baseline GSA, majority of the LGUs fell within the range 0.51-0.75, with two LGUs registering over-all index of 0.50 and below.

Over-all best performers were the LGUs in Sarangani with range of 0.77-0.91 (all are top performers), mean index of 0.86 for all LGUs (old and new) and 0.89 for 'old LGUs'.

Range of Over-all Indices	**Sultan Kudarat** Baseline: 0.43-0.74 MT: 0.55-0.88		**South Cotabato** Baseline: 0.48-0.96 MT: 0.53-0.96		**North Cotabato** Baseline: 0.63-0.73 MT: 0.70-0.80		**Sarangani** Baseline: 0.67-0.81 MT: 0.77-0.91		**Lanao del Sur** (Wao) Baseline: 0.60 MT: 0.88		**Davao City** Baseline: 0.86 MT: 0.93		**All LGUs (%)** Baseline: 0.43-0.96 MT: 0.53-0.96	
	BL (3 LGUs)	**MT (5 LGUs)**	BL (7 LGUs)	**MT (8 LGUs)**	BL (2 LGUs)	**MT (2 LGUs)**	BL (3 LGUs)	**MT (4 LGUs)**	BL	**MT**	BL (LGUs)	**MT (LGUs)**	BL (17 LGUs)	**MT (21 LGUs)**
0.00-0.25	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**
0.26-0.50	1 (33%)	**0**	1 (14%)	**0**	0	**0**	0	**0**	0	**0**	0	**0**	2 (12%)	**0**
0.51-0.75	2 (67%)	**3 (60%)**	2 (29%)	**2 (25%)**	2 (100%)	**1 (50%)**	1 (33%)	**0**	1	**0**	0	**0**	8 (47%)	**6 (29%)**
0.76-1.00	0	**2 (40%)**	4 (57%)	**6 (75%)**	0	**1 (50%)**	2 (67%)	**4 (100%)**	0	**1**	1	**1**	7 (41%)	**15 (71%)**
Mean All LGUS	0.60	**0.70**	0.74	**0.80**	0.68	**0.75**	0.76	**0.86**	0.60	**0.88**	**0.86**	**0.93**	0.71	**0.79**
Mean Old LGUs	0.60	**0.76**	0.74	**0.79**	0.68	**0.75**	0.76	**0.89**	0.60	**0.88**	**0.86**	**0.93**	0.71	**0.81**
Range Old LGUs	0.43-0.74	**0.55-0.88**	0.48-0.96	**0.53-0.96**	0.63-0.73	**0.70-0.80**	0.67-0.81	**0.77-0.91**	0.60	**0.88**	**0.86**	**0.93**	0.43-0.96	**0.55-0.96**

Trend in Sector Indices

The indices are disaggregated below to enable analysis of trend in terms of performance across sectors, and within a specific sector to assess how each province relatively compares with other provinces' performance. The means for old LGUs are presented to track progress or lack thereof in sector performance, which can be linked to EcoGov interventions in the assisted sectors since the baseline assessment.

The data suggests that CRM was the over-all highest performing sector with a narrow high range of 0.88-1.00, mean of 0.93 for all LGUs (old and new) and mean of 0.92 for 'old LGUs. Note that the LGUs were already performing well in CRM during the baseline assessment. The range (0.13-1.00) was widest in FFM as there were some LGUs that underperformed in this sector. Nevertheless, the over-all mean index was quite high, being 0.83 for 'old LGUs' and 0.80 for all LGUs.

While the over-all mean (0.78) for UEM for all LGUs was the lowest among the three sectors assessed, the range of indices in this sector was narrower compared to FFM. This means that LGUs' performance in this sector did not vary much from each other. Data also suggests that 'old LGUs' posted fastest growth in this sector (0.82 from baseline mean of 0.66) as compared to FFM (0.83 from baseline 0.71) and CRM (0.92 from baseline of 0.85).

By province, Sarangani LGUs generally registered the best and Sultan Kudarat the weakest performance in FFM. Good performance in CRM was noted among LGUs in all provinces. Sultan Kudarat LGUs experienced the biggest improvement in UEM with mean for old LGUs of 0.79 from the relatively low baseline mean of 0.44. Low UEM indices of newly assisted LGUs in this province, however, pulled down the over-all mean for all LGUs to 0.65. South Cotabato 'old LGUs' sustained their high baseline mean in UEM of 0.85, making them over-all top rankers in this sector followed by Sarangani LGUs. The mean index in UEM of the two North Cotabato LGUs of Makilala and Kidapawan City improved but remained in the relatively low level of 0.69 indicating that much more have to be done in this sector.

Improvement in LIM seemed the slowest with over-all midterm mean of 0.81 from 0.79 baseline mean for old LGUs. The lowest index in this sector improved to 0.67 from baseline of 0.56. Over-all mean in LIM for 'old LGUs' was merely sustained among Sultan Kudarat (mean of 0.74) and North Cotabato LGUs (mean of 0.62) and in Wao (0.67). Davao was able to sustain its perfect 1.00 LIM index. However, there was a slight decline in mean LIM index among 'old LGUs' in both South Cotabato (from 0.83 to 0.78) and Sarangani (0.85 to 0.78) provinces. EcoGov should look into the reasons for this decline and their implications on over-all environmental governance.

LIM index is linked to over-all environmental governance since it tracks the adoption of LGU best practices in internal management functions that directly support its environment initiatives. These important administrative functions include budgeting;

contracting, bidding and procurement; leveraging external assistance; and management of database, personnel and multisectoral bodies.

Sector	Sultan Kudarat		South Cotabato		North Cotabato		Sarangani		Wao		Davao City		All LGUs	
	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**
FFM														
All LGUs mean	0.56	**0.65**	0.54	**0.74**	0.93	**0.94**	0.73	**0.95**	0.93	**1.00**	0.93	**0.93**	0.71	**0.80**
Old LGUs mean	0.56	**0.67**	0.54	**0.73**	0.93	**0.94**	0.73	**1.00**	0.93	**1.00**	0.93	**0.93**	0.71	**0.83**
Range of Indices	0.00-0.87	**0.13-1.00**	0.07-0.93	**0.27-1.00**	0.93	**087-1.00**	0.67-0.80	**0.75-1.00**	0.93	**1.00**	0.93	**0.93**	0.00-0.93	0**.13-1.00**
CRM														
All LGUs mean	0.85	**0.94**	0.94	**0.94**	NA	**NA**	0.86	**0.94**	NA	**NA**	0.71	**0.88**	0.85	**0.93**
Old LGUs mean	0.85	**0.94**	0.94	**0.94**	NA	**NA**	0.86	**0.92**	NA	**NA**	0.71	**0.88**	0.85	**0.92**
Range of Indices	0.82-0.88	**0.94**	0.94	**0.94**	NA	**NA**	0.76-0.94	**0.88-1.00**	NA	**NA**	0.71	**0.88**	0.76-0.94	**0.88-1.00**
UEM														
All LGUs mean	0.44	**0.65**	0.85	**0.87**	0.47	**0.66**	0.63	**0.75**	0.25	**0.88**	0.81	**0.94**	0.66	**0.78**
Old LGUs mean	0.44	**0.79**	0.85	**0.85**	0.47	**0.66**	0.63	**0.82**	0.25	**0.88**	0.81	**0.94**	0.66	**0.82**
Range of Indices	0.19-0.63	**0.44-0.88**	0.75-0.94	**0.75-1.00**	0.38-0.56	**0.44-0.88**	0.38-0.81	**0.69-0.88**	0.25	**0.88**	0.81	**0.94**	0.19-0.94	**0.44-1.00**
LIM														
All LGUs mean	0.74	**0.82**	0.83	**0.78**	0.62	**0.62**	0.85	**0.75**	0.67	**0.67**	1.00	**1.00**	0.79	**0.77**
Old LGUs mean	0.74	**0.74**	0.83	**0.78**	0.62	**0.62**	0.85	**0.78**	0.67	**0.67**	1.00	**1.00**	0.79	**0.81**
Range of MTIndices	0.67-0.78	**0.67-1.00**	0.67-1.00	**0.67-1.00**	0.56-0.67	**0.56-0.67**	0.78-0.89	**0.67-0.89**	0.67	**0.67**	**1.00**	**1.00**	0.56-1.00	**0.67-1.00**

Change in LGU Category

From six during the baseline assessment, seven more 'old' LGUs previously belonging to Categories 2 and 4 achieved well-performing status by the midterm assessment. In addition to these 13 'old' LGUs, there were two newly assessed LGUs (Alabel and Tampakan) that were 'well-performing", bringing the total number of well-performers to 15 or around 70% of the total LGUs that self-assessed.

The challenge for the final assessment is for the 5 median (mean over-all index of 0.63) and lone overspecializing LGU (Isulan with over-all index of 0.55) to enter well-performing category by the final assessment in 2009. The 5 median performing LGUs consist of one 'old LGU'- Makilala and four newly assisted LGUs- Senator Ninoy Aquino, Bagumbayan, Surallah and Tboli. Isulan's over-all performance is affected by its poor showing in the EcoGov unassisted FFM. The median performers also tend to perform poorly in the EcoGov unassisted sectors.

Tboli's case should be closely examined since it was Category 1 (over-all index of 0.78) during the baseline GSA in 2006 but its performance declined to to Category 2 (over-all

index of 0.68) in the present assessment. Both FFM (from 0.80 to 0.67) and UEM (from 0.81 to 0.63) indices have drastically deteriorated in this LGU, only the LIM index has improved (from 0.67 to 0.78).

Index Category	Number, Percentage and Mean Indices of LGUs That Belong to the Category		
	Baseline (17)	Midterm Old LGUs (17)	Midterm All LGUs (21)
1-Well Performing	6 (35%) Mean-0.85	13 (76%) Mean- 0.87	15 (71%) 0.86
2- Median	7 (41%) Mean- 0.63	3 (18%) Mean- 0.64	5 (24%) 0.63
3- With Generally Low Indices	0 (0%)	0 (0%)	0 (0%)
4- Overspecializing	4 (24%) 0.63	1 (6%) (0.55)	1 (5%) 0.55
Average Cross-Sector Index	**0.71**	**0.81**	**0.79**

11.4 Forest Sector Indices

By disaggregating FFM indices by function and principle in **Table 33** a closer examination of specific areas where each LGU performed well or poorly is possible. Based on this table, 15 LGUs (75%) obtained FFM index of 0.80 and above. Six LGUs (Lebak, General Santos, Makilala, Maitum, Kiamba and Wao) obtained perfect 1.00 by adopting all 15 indicators of best practices in this sector. LGUs with relatively low indices were Isulan (0.13), Surallah (0.27), Bagumbayan (0.47), and Tboli (0.67). Low performing LGUs tend to underperform in almost all functions and principles, and need closer attention from both DENR and EcoGov.

Tacurong City did not undergo an assesment on FFM because the exact size and boundaries of its forestlands were unknown at the time of the midterm assessment. At present, the LGU is sure only of its jurisdiction over 100 ha of forestland covered by a Certificate of Stewardship Contract (CSC). It is presently involved in a territorial dispute with Tantangan, South Cotabato over more than 1,000 ha of lands located in Brgy. Passi, portions of which are timberland. As of the time of the mid-term GSA the DENR had not responded to the LGU's letter requesting technical maps and determination of the final boundaries but it did promise to look into this matter. There is a need to follow through this agreement since this affects Tacurong City's management of its forestlands.

Unclear accountabilities resulted in the failure of Tacurong City to give attention to FFM, so that during the baseline GSA in 2005 a 0.07 index in FFM, equivalent to satisfying only one 'best practice' was obtained. The City has a well functioning ENRO that can be mobilized to address FFM concerns that tend to concentrate presently on UEM.

11.5 Coastal Sector Indices

All eight coastal LGUs perfomed well in CRM, with lowest index of 0.88 obtained by two LGUs: Maitum and Davao City. While only one LGU (Alabel) achieved perfect index (1.00) in this sector, the other LGUs missed only one (5 LGUs) or two (2 LGUs) 'best practice' indicators. The LGUs well-performed in planning and plan implementation and permitting but three (General Santos, Kiamba, Maitum) should improve on law enforcement function.

The LGUs were generally highly functional, transparent, and accountable. Kalamansig has to improve on accountability principle by formally designating and clearly defining roles and responsibilities of management staff, office or body for CRM. Three LGUs (Lebak, Kiamba, and Maitum) have to practice more public participation in the conduct of various CRM functions.

11.6 Urban Sector Indices

Twelve or slightly more than half of the LGUs achieved well performing status in UEM, most of them found in South Cotabato. Two LGUs (General Santos and Tampakan) obtained perfect 1.00 index.

The LGUs that need to catch up in this sector include Senator Ninoy Aquino (0.44), Bagumbayan (0.44), Makilala (0.44), Alabel (0.56), and Tboli (0.63). These LGUs received no assistance from EcoGov in UEM, except for Tboli (assisted in ISWM planning, plan implementation and ordinance formulation) and Alabel (assisted in preparation of septage treatment plan).

Sultan Kudarat, Sarangani, and North Cotabato LGUs were relatively weak in public participation and law enforcement. Sarangani LGUs were additionally less transparent. The LGUs were all highly accountable as shown by the high mean index of 0.93 they registered in this governance principle. This means that these LGUs formally designated either an office, officer or body with clear roles and accountabilities and proper checks and balances on UEM.

LGUs also tend to register high scores in best practices relating to planning and plan implementation and on issuance of permits. They generally underperformed in law enforcement and public participation. Adoption of LGUs of practices designed to manage domestic wastewater generally consisted of compliance with building code sanitary requirements and DENR requirements for slaughterhouses. Polomolok is in the process of designing its septage plan with assistance from Sustainable Sanitation for Southeast Asia.

11.7 LGU Internal Management Indices

LIM indices of South and Central Mindanao LGUs are disaggregated into governance principles and governance functions in **Table 36** in order to identify the strong and weak

points of LGUs as far as performing internal management operations that are supportive of environmental functions are concerned.

Fourteen (14) LGUs can be considered high performers, majority of them found in South Cotabato. One LGU (Senator Ninoy Aquino) achieved a perfect index, indicating the adoption of all nine indicators of 'best practices'. Except for Kidapawan City (LIM index of 0.56) , all cities that self-assessed were high performers. The LGUs that need more improvement were: Surallah (0.56), Kiamba (0.56), Makilala (0.67), Alabel (0.67), Wao (0.67) and Isulan (0.67).

Data indicates high functionality and transparency in the conduct of LIM functions among LGUs in all provinces. However, the LGUs generally need to improve their accountability and public participation practices. Majority of the LGUs were able to adopt both of the two best practices in budgeting (allocating internal funds and leveraging external sources of funds), which helped them carry out environmental tasks.

Majority of the LGUs have instituted a transparent and accountable procurement system but they generally need to enhance public participation and feedback in the review of procurement system and activities. LGUs also tend to score low in cross-cutting functions which include establishing and maintaining a transparent database on environment and internal management and conduct of performance monitoring of LGU officers and staff and multisectoral bodies with key environment responsibilities.

11.8 Adoption of Higher Level "Best Practices"

Apart from raising their indices, adoption of higher level practices was also observed in majority of the LGUs (**Table 37**). In FFM, higher level practices commonly adopted include conduct of tenure assessment, preparation of more detailed resource management plan, integration of FLUP with annual investment plan resulting in higher allocation for FFM, annual work planning, creation of MENRO that handles FFM functions, higher resource allocation for law enforcement, support for upland investment and livelihood, conflict management, and enhanced multisectoral collaboration on FFM.

Higher level practices adopted in CRM include integration of CRM plan with annual investment plan, preparation of annual work program, increase in LGU allocation for CRM, increased leveraging/networking activities, improved institutional capacities for CRM as a result of training and establishment of working protocol and management system, targeted IEC, improved law enforcement procedure and logistics, regular M&E, improved permitting system resulting in more permits being issued and revenues collected, gear and species regulation, and enforcement of MPA. While many LGUs reported adoption of best practice on establishment of CRM or MPA trustfund and implementation of a user's fee system, these largely remained at the ordinance level and yet to be implemented on the ground. Other ideal practices that began to be increasingly adopted were the implementation of CRM zone and integrated coastal management principles.

In UEM, adoption of the following higher level practices was commonly observed: integration of UEM plan into current LGU development plan or investment plan, increased budget for plan implementation, formal creation of a permanent office or designation of personnel in-charge of UEM, increased creation and involvement of barangay solid waste management committees, more expansive coverage of waste segregation and waste collection, operation of barangay or central MRF and composting facility, meeting of at least 25% waste diversion target, collection of service fees and charges, accreditation and regulation of junkshop operation, and formulation of design/plan leading to the establishment of law-compliant disposal facility (SLF).

Tacurong City had started planning for management of toxic and hazardous wastes (THWs) including a survey of generators of these wastes. **The LGUs, as a whole however, had difficulty adopting practices relating to THW management on their own. They shall be requiring outside technical and logistical asssistance to be able to implement this task.**

While more LGUs reported adopting practices related to liquid waste or sanitation management, practices consisted mostly of compliance to waste treatment facility requirements for slaughter houses, formulation of septage management ordinance, and plans and budget to improve septage (e.g distribution of bowls to households) and sewerage services (in slaughter houses).

11.9 Perceived results/outcomes of Good Governance

Five FFM well-performing LGUs (Maasim, Tupi, Makilala, General Santos City and Kalamansig) reported an increase in LGU revenues and income from enhanced investments on FFM (Table 38). Other perceived impacts include prevention of open access (35% of LGUs), improved biodiversity and forest quality (35%), reduction in illegal activities (25% and halting or reduction in the conversion of natural forest (25%). Maasim and Makilala, both with index of 1.00 in FFM, reported experiencing all above-mentioned positive results.

Adoption of best practices in CRM led to perceived positive results which include cleaner coasts (75% of coastal LGUs), improved coastal habitats like mangrove and corals (75%), reduced incidence of fisheries violation (62%) even as apprehensions increased due to sustained and effective enforcement, and enhanced fish abundance and size in the immediate vicinity of marine sanctuaries (50%). Both Davao City and Maitum received awards of recognition for their CRM initiatives.

Commonly perceived positive results from improved UEM include: cleaner surroundings (62%) and more efficient waste collection and transport (48%). Other benefits perceived include generation of revenues from garbage service fees, reduction in pollution sources, reduction in incidence of violations because of improved awareness. A third of the LGUs reported receiving award/recognition for their exemplary solidwaste management practices.

11.10 Deteriorations in Best Practices

GSA participants in a third of the LGUs (**Table 39**) perceived certain deteriorations in their respective LGU's sector performance. In FFM, a decline in law enfocement was perceived by GSA participants in Kidapawan City, Davao City and Kiamba. Reasons cited include insufficient budget, inadequate IEC support, poor political will and change in LGU leadership.

Makilala's budget for FFM was reduced and portions realigned to funds for enhanced security in the wake of the October 2006 bombing incident. Kidapawan City's failure to implement key activities in its FLUP like M&E, law enforcement and forest investments was linked by GSA participants to financial constraints and lack of technical expertise. In Koronadal City, budget constraints resulted in LGU decision to discontinue hiring of forest guards for a month. Changed priority of this LGU and the practice of contractual hiring had also resulted in the loss of trained technical staff.

Kidapawan City's FLUP Implementation Committee and Koronadal City's Watershed Management Council both became non-functional. Lack of commitment of members and the narrow focus of the LGU on reforestation activities in AMAS were blamed for lost functionality in the case of Kidapawan City, which, in turn affected its achievement of FLUP targets.

Maasim's inability to fully implement its CRM plan was attributed to its failure to finalize the support municipal ordinance. Unclear functions and accountabilities were blamed for the inadequate performance of CRM management bodies in Kalamansig.

GSA participants in a total of seven LGUs, including the large waste producing cities of Kidapawan, Davao, Tacurong and Koronadal perceived certain deteriorations in their LGU's performance in UEM due to varied reasons. Faulty technical design resulted in the failure of Kidapawan City to operationalize its composting facility. Koronodal City's plan to construct its SLF was delayed by it's inability to purchase site due to the changed composition of the appraisal committee. Tacurong City was not able to fully meet its waste collection and segregation targets due to insufficient collection vehicle, tools and equipment.

Financial and manpower constraint was another major factor that affected LGU performance as in the case of Isulan who failed to implement waste segregation and failed to create the proposed organizational structure for UEM. The practice of hiring staff on job contract basis to provide temporary employment in both Kidapawan City and Koronadal City was seen a problem as this led to insecure job tenure and constant need for staff training.

UEM management bodies like TWG and ESWMB became non-functional in four LGUs (Kidapawan City, Isulan, Maitum and Tacurong City). Key informants traced this to the failure of LGU leadership in both Kidapawan City and Tacurong City to see the practical importance of ESWMB. Lack of proper motivation and interest as well as lack of

required technical expertise of members of ESWMB were cited as reasons in both Isulan and Maitum. In all cases, ESWMB was highly dependent on LGU decision to convene/mobilize them.

Deterioration in FFM performance manifested in the decline in corresponding GSA index in Kidapawan City. While GSA participants in Tboli , Maitum and Tupi did not share anecdotes about deteriorated performance, these LGUs registered a decline in index in certain sectors as shown below.

FFM			CRM			UEM			Over-All		
LGU	**BL**	**MT**	**LGU**	**BL**	**MT**	**LGU**	**BL**	**MT**	**LGU**	**BL**	**MT**
Tboli	0.80	**0.67**	Maitum	0.94	**0.88**	Tupi	0.94	**0.88**	Surallah	0.55	**0.53**
Kidapawan City	0.93	**0.87**				Tboli	0.81	**0.63**	Tboli	0.78	**0.68**

Table 29. Profile of LGUs Surveyed in South and Central Mindanao[13]

LGU	Total Pop'n (2000)	Barangays		Land Area (ha)	Pop'n Density (persons/ ha)	Forestland (ha; % of total land area)	Terrest'l Protected Area	Coast line (km)	No. & Total size of MPA	Income Class	Ave. IRA (2006-07)	Env't Share 20% DF (2006-2007)
		Total	Urban									
SULTAN KUDARAT (5)												
Isulan	73,129	17	3	54,125	1.40	38,000 (70%)	No data	NA	NA	1st	84,396,663	No data
Lebak	70,899	27	3	47,000	1.80	23,400 (50%)	No data	22.3	No data	1st	77,175,923	1,805,000 (12%)
Sen. Ninoy Aquino	30,222	20	1	39,143	0.90	25,314 (65%)	No data	0	NA	3rd	40,975,018	900,000 (11%)
Kalamansig	44,645	15	3	69,922	0.64	61,077 (87%)	No data	42.8	1 (10.2)	3rd	63,171,859	762,500 (6%)
Bagumbayan	53,444	19	1	67,295	0.75	44,702 (66%)	none	0	NA	1st	67,250,000	No data
SOUTH COTABATO (8)												
Koronadal City	133,786	27	7	27,700	4.83	7,634 (28%)	1,137.99	0	NA	3rd	270,778,556	21.5 M (40%)
Tacurong City	76,354	20	1	15,340	4.98	100 (1%)	none	0	NA	4th	163,987,238	1,150,000 (4%)
Polomolok	110,709	23	3	33,997	3.26	2,154 (6%)	none	0	NA	1st	79,000,000	no data
Tampakan	33,011	14	3	28,811	1.14	15,549 (54%)	none	0	NA	3rd	50,690,015	no data
Surallah	66,208	17	3	31,110	2.13	3,787 (12%)		0	NA	1st	72 M	no data
Tupi	53,440	15	1	22,800	2.34	No data	Mt. Matutum Protected Landscape (9000)	0	NA	2nd	55,284,200	389,500 (4%)
G. Santos City	411,822	26	13	53,606	7.68	No data	No data	No data	No data	1st	572,420,947	no data
Tboli	60,693	25	3	91,527	0.66	22,400 (24%)	None	0	NA	1st	92,255,199	no data
NORTH COTABAT0 (2)												
Kidapawan City	101,205	40	1 urban, 4 urbaniz ing	34,007	2.98	5947 (17%)	Mount Apo Natural Park, (5,301), Amas Ecotourism Park, (645)	0	NA	2nd	282,726,396	no data

[13] Highlighted names are " new LGUs"

		Barangays										
Makilala	63,039	38	0	34,356.53	1.83	12,995 (38%)	Mt Apo Natural Park (7,999)	0	NA	2nd	56,742,655	951,984 (8%)
SARANGANI (4)												
Alabel	60,779	12	1	51,199.37	1.19	36,351 (71%)	1,549 ha (local initiative)	12	14.88 (Kawas Marine Sanctuary)	2nd	68,758,304	1,444,301 (11%)
Maitum	35,536	19	1	32,435	1.10	21,773 (67%)	no data	24	no data	3rd	47,660,946	no data
Maasim	39,424	16	2	51,107	0.77	46,617 (91%)	NA	43	Kamanga-140.49 ha; Colon-30 ha	3rd	57,512,820	no data
Kiamba	44,724	19	1	43,209	1.03	32,072 (74%)	none	39	3 (Tambilil, Tuka Marine Park-53.3, Lumayan-Tablao)	3rd	50,556,048	no data
LANAO DEL SUR (1)												
Wao	35,517	26	4	35,460	1.00	19,819 (56%)	19,000	0	NA	5th	54,280,806	3,387,036 (31%)
CHARTERED CITY (1)												
Davao City	1,147,116	182	90	244,000	4.70	126,404 (52%)	67,339	60.1	473 ha	1st	1.732	17 M (5%)

Table 30. Type and period of assistance received by South and Central Mindanao LGUs in 2003-2007

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
SULTAN KUDARAT						
Isulan	None	NA	ISWM Plan (2004-present)	Rotary, DENR, ALVDA	NA	None
Lebak	FLUP Preparation (2002-2003) FLUP Implementation (2004) Co-Mgt – Forest (2004) Co-Mgt – Mangrove (2004)	Fisheries Resource Management Plan (2002-2003)	ISWM Plan, (2005-present)	None	None	None
Sen. Ninoy A.	FLUP (2006-present)	NA	None	STARCM, MRDP, ARISP, SPOTS, UNFPA	NA	None
Kalamansig	FLUP Preparation (2002) FLUP Implementation (2004) Co-Mgt – Forest (2004)	CRM Plan (2004) Fisheries Mgt. Plan MPA establishment (2004)	Composting Plan (2006), ISWM Plan (2005-2007)	GEM, JICA, UDP, MBUSS, MRDP, UNDP	DENR, BFAR, Maritime, MRDP	None
Bagumbayan	FLUP (2006-present)	NA	None	MRDP, ARD-ADP, GEM, STARCM ARCP-ADB	NA	None
SOUTH COTABATO						
Gen. Santos City	None	None	ISWM Plan Preparation (2006-present) Waste Water Treatment Facility Design Preparation (present)	None	BFAR, SMICZMP	SuSEA
Koronadal City	None	NA	ISWM Plan Preparation(2002-2004) ISWM Plan Implementation (2006-present)	None	NA	None
Tacurong City	None	NA	ISWM Plan Preparation(2002-2004) ISWM Plan Implementation (2004-present) Sanitary Land Fill (SLF) Category 1 Design Preparation and Implementation (2007-present)	None	NA	SWAPP
Polomolok	None	NA	ISWM Plan Preparation (2006-2007) Ordinance Formulation (2007) SWM Plan Implementation (2007-present)	None	NA	None
Tampakan	None	NA	ISWM Plan Preparation (2006-2007) Ordinance Formulation (2007) SWM Plan Implementation (2007-present)	UDP- barangay devt. planning	NA	None
Surallah	None	NA	ISWM Plan Preparation (2006-2007) Ordinance Formulation (2007) SWM Plan Implementation	None	NA	None

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
			(2007-present)			
Tupi	None	NA	ISWM Plan Preparation (2006-2007) Ordinance Preparation (2007) SWM Plan Implementation (2007-present)	Province- seedlings, NEDA-financial support to organic farmers, SMI-biodiversity assessment, SCFI/Mahintana, UNDP/Act for Peace	NA	None
Tboli	None	NA	ISWM Plan Preparation (2006-2007) Ordinance Formulation (2007) SWM Plan Implementation (2007-present)	DOLE-UBC-CPSAC (bamboo plantation), Province	NA	Upland Banana Corporation, DOLE Philippines (financial assistance)
N. COTABATO						
Kidapawan	FLUP Preparation (2003-2004)	NA	ISWM Plan Preparation (2002-present) Waste Water Management Plan Preparation (present)	PNOC (ecotourism), DENR	NA	None
Makilala	FLUP Preparation (2003-2004) Co-Mgt – Forest (2005)	NA	None	DOT Region XII (New Israel-Mt. Apo Trail Improvement); PAWB (Mt. Apo Restoration Project)	NA	LGSP (2002-2003)
SARANGANI						
Alabel	None	None	Septage Treatment Facility (STF) Plan preparation (2007 to present)	UDP, DBP Forest , DENR (TA, seedlings), LUB-BDP, BFPMS, Province	SMICZMP, BFAR (livelihood), CASCO	SMICZMP-JBIC
Maitum	FLUP Preparation (2003 – 2004) FLUP Implementation (2004-present)	None	None	UDP (Brgy. Forest Protection Mgt. Scheme), SMICZMP/JBIC (Mangrove Rehab), USM Cabacan (rubber techno-logy assistance), Sarangani Province (seedlings)	SMCIZMP (mangrove rehab), BFAR (materials, boats, training), DENR, PNP-Coast Guard, mahintana (resource rehab), Tambuyog/CASCO (law enforcement), UNDP-FEMCO	None
Maasim	FLUP Preparation (2003-2004) Co-Mgt – Forest (2007-present)	None	None	DENR, NCIP, GEM (infra), UDP, Sarangani province, MRDP, Southern Phils Power Corp, DOLE, Mahintana	BFAR, Southpoint Divers (MPA), Province (M&E), MSU (Research), Regional Fishermen Training Center	SMICZMP through JBIC
Kiamba	FLUP Preparation (2003-2004) FLUP Implementation (2007-present)	None	none	Upland Devt. Program (since 2002) for Brgy. Protection Management and appropriate upland farming	BFAR, DENR (SMICZMP for zoning, underwater assessment water monitoring), CASCO- PO strengthening	None
LANAO DEL SUR						

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
Wao	FLUP Preparation (2002-2003) FLUP Implementation (2003-2007) Co-Mgt-Forest (2006-present)	None	SWM Plan Preparation (2003-2004) SWM Plan Implementation (20040-resent) Sanitary Land Fill SLF Categroy 1 Design and Implementation (2006-present)	USDA	NA	None
CHARTERED CITY						
Davao City	Writing and Packaging of Davao River Watershed Management Plan and Talomo-Lipadas Watershed Management Plan (2007-present)	Marine Protected Areas (MPAs) Strengthening and Networking (2007-present)	ISWM Plan Preparation (2006-2007)	PCEEM, Davao City Water District DENR	BFAR	World Bank

Table 31. Summary environmental governance indices of South and Central Mindanao LGUs

Province & Municipality	By Specific Sector				By Governance Principle, Across Sectors				By Governance Function, Across Sectors						Overall LGU Index
	FFM	*CRM*	*UEM*	*LIM*	*F*	*T*	*A*	*P*	*Plng*	*Laws*	*Issu*	*Bdgt*	*Proc*	*Cros*	
Sultan Kudarat															
Lebak	1.00	0.94	0.75	0.78	0.97	0.90	0.20	0.70	0.89	0.83	1.00	1.00	1.00	0.78	0.88
Kalamansig	0.87	0.94	0.75	0.78	0.84	0.90	0.40	0.90	0.89	0.75	1.00	1.00	1.00	0.86	0.84
S. N. Aquino	**0.80**	**NA**	**0.44**	**1.00**	**0.64**	**0.86**	**1.00**	**0.57**	**0.58**	**0.63**	**1.00**	**1.00**	**1.00**	**0.86**	**0.70**
Isulan	0.13	NA	0.88	0.67	0.64	0.57	0.50	0.29	0.63	0.25	1.00	1.00	0.67	0.43	0.55
Bagumbayan	**0.47**	**NA**	**0.44**	**0.89**	**0.50**	**0.71**	**0.75**	**0.43**	**0.53**	**0.13**	**1.00**	**0.50**	**1.00**	**0.86**	**0.55**
Mean	***0.65***	***0.94***	***0.65***	***0.82***	***0.72***	***0.79***	***0.57***	***0.58***	***0.70***	***0.52***	***1.00***	***0.90***	***0.93***	***0.76***	***0.70***
South Cotabato															
General Santos	1.00	0.94	1.00	0.89	0.97	1.00	0.80	1.00	1.00	0.92	1.00	1.00	1.00	0.89	0.96
Polomolok	0.93	NA	0.94	0.78	0.95	1.00	0.50	0.86	0.89	1.00	1.00	1.00	0.67	0.86	0.90
Tampakan	**0.80**	**NA**	**1.00**	**0.78**	**0.91**	**1.00**	**0.50**	**0.86**	**0.95**	**0.88**	**1.00**	**1.00**	**1.00**	**0.57**	**0.88**
Koronadal City	0.73	NA	0.94	0.89	0.77	0.29	1.00	0.86	0.84	0.75	1.00	0.50	1.00	1.00	0.85
Tupi	0.80	NA	0.88	0.89	0.82	1.00	0.75	0.86	0.79	0.88	1.00	1.00	0.67	1.00	0.85
Tacurong City	Not assessed	NA	0.81	0.67	0.85	0.80	0.67	0.50	0.90	0.75	0.00	0.50	0.67	0.80	0.76
Tboli	0.67	NA	0.63	0.78	0.77	0.71	0.50	0.43	0.68	0.50	1.00	1.00	0.67	0.71	0.68
Surallah	0.27	NA	0.75	0.56	0.55	0.71	0.50	0.29	0.58	0.25	1.00	0.50	0.67	0.57	0.53
Mean	***0.65***	***0.94***	***0.87***	***0.78***	***0.82***	***0.81***	***0.65***	***0.71***	***0.83***	***0.74***	***0.88***	***0.81***	***0.79***	***0.80***	***0.80***
North Cotabato															
Kidapawan C.	0.87	NA	0.88	0.56	0.86	0.86	0.50	0.71	0.95	0.63	1.00	1.00	0.67	0.57	0.80
Makilala	1.00	NA	0.44	0.67	0.68	0.71	0.75	0.71	0.79	0.50	1.00	0.00	1.00	0.71	0.70
Mean	**0.93**	**NA**	**0.66**	**0.61**	**0.77**	**0.79**	**0.63**	**0.71**	**0.87**	**0.56**	**1.00**	**0.50**	**0.83**	**0.64**	**0.75**
Sarangani															
Maitum	1.00	0.88	0.88	0.89	0.91	1.00	0.80	0.90	0.93	0.83	1.00	1.00	1.00	0.89	0.91
Maasim	1.00	0.94	0.69	0.89	0.91	0.80	0.80	0.90	0.86	0.83	1.00	1.00	1.00	0.89	0.88
Kiamba	1.00	0.94	0.88	0.56	0.97	0.80	0.60	0.80	0.96	0.83	1.00	1.00	0.67	0.67	0.88
Alabel	**0.80**	**1.00**	**0.56**	**0.67**	**0.81**	**0.80**	**0.60**	**0.70**	**0.86**	**0.75**	**1.00**	**1.00**	**0.67**	**0.78**	**0.77**
Mean	**0.95**	**0.94**	**0.75**	**0.75**	**0.90**	**0.85**	**0.70**	**0.83**	**0.90**	**0.81**	**1.00**	**1.00**	**0.83**	**0.81**	**0.86**
Lanao del Sur															
Wao	1.00	NA	0.88	0.56	0.91	1.00	0.50	0.86	0.95	1.00	1.00	1.00	0.67	0.57	0.88
Chartered City															
Davao	0.93	0.88	0.94	1.00	0.88	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	0.93

Table 32. Comparison of baseline and mid-term GSA results of LGUs in South and Central Mindanao

Province	Indices										Change in Category
	FFM		CRM		UEM		Internal Management		Over-all		
	Baseline	Mid-term	Baseline	Mid-term	Baseline	Mid-Term	Baseline	Mid-Term	Baseline	Mid-term	
S. Kudarat (5)											
Isulan	0.00	0.13	NA	NA	0.63	0.88	0.78	0.67	0.43	0.55	C2 to C4
Lebak	0.87	1.00	0.82	0.94	0.5	0.75	0.78	0.78	0.74	0.88	C2 to C1
Sen. Ninoy Aquino	Not Assessed	0.80	Not Assessed	NA	NA	0.44	Not Assessed	1.00	Not Assessed	0.70	C2
Kalamansig	0.80	0.87	0.88	0.94	0.19	0.75	0.67	0.78	0.63	0.84	C4 to C1
Bagumbayan	Not Assessed	0.47	NA	NA	Not Assessed	0.44	Not Assessed	0.89	Not Assessed	0.55	C2
S. Cotabato (8)											
Koronadal City	0.53	0.73	NA	NA	0.75	0.94	1.00	0.89	0.78	0.85	C1 to C1
Tacurong City	0.07	Not assessed	NA	NA	0.75	0.81	0.67	0.67	0.48	0.76	C2 to C1
Polomolok	0.73	0.93	NA	NA	0.94	0.94	0.89	0.78	0.85	0.90	C1 to C1
Tampakan	Not Assessed	0.80	NA	NA	Not Assessed	1.00	Not Assessed	0.78	Not Assessed	0.88	C1
Surallah	0.27	0.27	NA	NA	0.75	0.75	0.67	0.56	0.55	0.53	C2 to C2
Tupi	0.47	0.80	NA	NA	0.94	0.88	0.89	0.89	0.75	0.85	C2 to C1
Tboli	0.80	0.67	NA	NA	0.81	0.63	0.67	0.78	0.78	0.68	C1 to C2
General Santos City	0.93	1.00	0.94	0.94	1.00	1.00	1.00	0.89	0.96	0.96	C1 to C1
N. Cotabato (2)											
Kidapawan City	0.93	0.87	NA	NA	0.56	0.88	0.67	0.56	0.73	0.80	C2 to C1
Makilala	0.93	1.00	NA	NA	0.38	0.44	0.56	0.67	0.63	0.70	C4 to C2
Sarangani (4)											
Alabel	Not Assessed	0.80	Not Assessed	1.00	Not Assessed	0.56	Not Assessed	0.67	Not Assessed	0.77	C1
Maitum	0.73	1.00	0.94	0.88	0.69	0.88	0.89	0.89	0.81	0.91	C1 to C1
Maasim	0.80	1.00	0.76	0.94	0.38	0.69	0.78	0.89	0.67	0.88	C4 to C1
Kiamba	0.67	1.00	0.88	0.94	0.81	0.88	0.89	0.56	0.81	0.88	C1 to C1
L. Del Sur (1)											
Wao	0.93	1.00	NA	NA	0.25	0.88	0.67	0.67	0.60	0.88	C4 to C1
Chartered City (1)											
Davao City	0.93	0.93	0.71	0.88	0.81	0.94	1.00	1.00	0.86	0.93	C1 to C1

Table 33. Forest and forestland management (FFM) specific indices of LGUs in South and Central Mindanao

PROVINCE/LGU	PRINCIPLE				FUNCTION			FFM Index
	F	T	A	P	***Planning***	Law Enforcment	Cross-cutting	
S. KUDARAT								
Lebak	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Kalamansig	0.78	1.00	1.00	1.00	1.00	0.50	1.00	**0.87**
Sen. Ninoy Aquino	0.67	1.00	1.00	1.00	0.78	0.75	1.00	**0.80**
Bagumbayan	0.44	0.50	0.00	0.67	0.44	0.25	1.00	**0.47**
Isulan	0.22	0.00	0.00	0.00	0.22	0.00	0.00	**0.13**
Mean	**0.64**	**0.70**	**0.60**	**0.73**	**0.69**	**0.50**	**0.80**	**0.65**
S. COTABATO								
Gen. Santos	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Polomolok	1.00	1.00	0.00	1.00	0.89	1.00	1.00	**0.93**
Tupi	0.78	1.00	0.00	1.00	0.67	1.00	1.00	**0.80**
Tampakan	0.78	1.00	1.00	0.67	0.89	0.75	0.50	**0.80**
Koronadal City	0.67	1.00	1.00	0.67	0.78	0.50	1.00	**0.73**
Tboli	0.78	0.00	1.00	0.67	0.67	0.50	1.00	**0.67**
Surallah	0.33	0.00	1.00	0.00	0.33	0.00	0.50	**0.27**
Mean	**0.76**	**0.71**	**0.71**	**0.72**	**0.75**	**0.68**	**0.86**	**0.74**
N. COTABATO								
Makilala	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Kidapawan City	0.78	1.00	1.00	1.00	0.89	0.75	1.00	**0.87**
Mean	**0.89**	**1**	**1**	**1**	**0.95**	**0.88**	**1.00**	**0.94**
SARANGANI								
Maitum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Maasim	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Kiamba	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Alabel	0.78	1.00	1.00	0.67	0.89	0.50	1.00	**0.80**
Mean	**0.95**	**1.00**	**1.00**	**0.92**	**0.97**	**0.88**	**1.00**	**0.95**
L. DEL SUR								
Wao	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Chartered CITY								
Davao City	0.89	1.00	1.00	1.00	0.89	1.00	1.00	**0.93**
Over-all Mean	**0.80**	**0.83**	**0.80**	**0.82**	**0.82**	**0.73**	**0.90**	**0.80**

Table 34. Coastal resource management specific indices of coastal LGUs in South and Central Mindanao

PROVINCE/LGU	PRINCIPLE				FUNCTION				CRM Index
	F	T	A	P	Planning	Law Enforcement	Permitting	Cross-cutting	
S. KUDARAT									
Lebak	1.00	1.00	1.00	0.67	0.89	1.00	1.00	1.00	**0.94**
Kalamansig	1.00	1.00	0.00	1.00	0.90	1.00	1.00	1.00	**0.94**
S. COT0BATO									
Gen. Santos	0.90	1.00	1.00	1.00	1.00	0.75	1.00	1.00	**0.94**
SARANGANI									
Alabel	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Maasim	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
Kiamba	1.00	1.00	1.00	0.67	1.00	0.75	1.00	1.00	**0.94**
Maitum	0.90	1.00	1.00	0.67	1.00	0.50	1.00	1.00	**0.88**
CHARTERED CITY									
Davao City	0.80	1.00	1.00	1.00	0.78	1.00	1.00	1.00	**0.88**

Table 35. Urban environmental management (UEM) specific indices of LGUs in South and Central Mindanao

PROVINCE/LGU	PRINCIPLE				FUNCTION				UEM Index
	F	T	A	P	Planning	Law Enforcement	Permitting	Cross-cutting	
S. KUDARAT									
Isulan	0.90	1.00	1.00	0.67	1.00	0.50	1.00	1.00	**0.88**
Lebak	0.90	0.50	1.00	0.33	0.80	0.50	1.00	1.00	**0.75**
Kalamansig	0.70	1.00	0.50	0.67	0.70	0.75	1.00	1.00	**0.75**
Sen. Ninoy Aquino	0.50	0.50	1.00	0.00	0.40	0.50	1.00	0.00	**0.44**
Bagumbayan	0.50	0.50	1.00	0.00	0.60	0.00	1.00	0.00	**0.44**
Mean	**0.70**	**0.70**	**0.90**	**0.33**	**0.70**	**0.45**	**1.00**	**0.60**	**0.65**
S. COTABATO									
Gen. Santos	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tampakan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Polomolok	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Koronadal City	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Tupi	0.80	1.00	1.00	1.00	0.90	0.75	1.00	1.00	**0.88**
Tacurong City	0.90	0.50	1.00	0.67	0.90	0.75	0.00	1.00	**0.81**
Surallah	0.70	1.00	1.00	0.67	0.80	0.50	1.00	1.00	**0.75**
Tboli	0.70	1.00	0.00	0.33	0.70	0.50	1.00	0.00	**0.63**
Mean	**0.86**	**0.94**	**0.88**	**0.83**	**0.89**	**0.81**	**0.88**	**0.88**	**0.87**
N. COTABATO									
Kidapawan City	0.90	1.00	1.00	0.67	1.00	0.50	1.00	1.00	**0.88**
Makilala	0.50	0.00	1.00	0.33	0.60	0.00	1.00	0.00	**0.44**
Mean	**0.70**	**0.50**	**1.00**	**0.50**	**0.80**	**0.25**	**1.00**	**0.50**	**0.66**
SARANGANI									
Maitum	0.80	1.00	1.00	1.00	0.80	1.00	1.00	1.00	**0.88**
Kiamba	0.90	0.50	1.00	1.00	0.90	0.75	1.00	1.00	**0.88**
Alabel	0.60	0.00	1.00	0.67	0.70	0.00	1.00	1.00	**0.56**
Maasim	0.80	0.00	1.00	0.67	0.70	0.50	1.00	1.00	**0.69**
Mean	**0.78**	**0.38**	**1.00**	**0.84**	**0.78**	**0.56**	**1.00**	**1.00**	**0.75**
L. DEL SUR									
Wao	0.80	1.00	1.00	1.00	0.90	1.00	1.00	0.00	**0.88**
C. CITY									
Davao City	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Over-all Mean	**0.79**	**0.74**	**0.93**	**0.70**	**0.81**	**0.64**	**0.95**	**0.76**	**0.78**

Table 36. LGU Internal management practices (LIM) specific indices of LGUs in South and Central Mindanao

PROVINCE/LGU	PRINCIPLE				FUNCTION			LIM INDEX
	F	T	A	P	Budgeting	Procurement	Cross-cutting	
S. KUDARAT								
Sen. Ninoy Aquino	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Bagumbayan	0.67	1.00	1.00	1.00	0.50	1.00	1.00	**0.89**
Lebak	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Kalamansig	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Isulan	1.00	0.67	0.50	0.00	1.00	0.67	0.50	**0.67**
Mean	**0.93**	**0.93**	**0.50**	**0.80**	**0.90**	**0.93**	**0.70**	**0.82**
S. COTABATO								
Gen. Santos	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Koronadal City	0.67	1.00	1.00	1.00	0.50	1.00	1.00	**0.89**
Tupi	1.00	1.00	1.00	0.00	1.00	0.67	1.00	**0.89**
Tacurong City	0.67	1.00	0.50	0.00	0.50	0.67	0.75	**0.67**
Polomolok	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Tampakan	1.00	1.00	0.00	1.00	1.00	1.00	0.50	**0.78**
Tboli	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Surallah	0.67	1.00	0.00	0.00	0.50	0.67	0.50	**0.56**
Mean	**0.88**	**1.00**	**0.50**	**0.38**	**0.81**	**0.79**	**0.75**	**0.78**
N. COTABATO								
Makilala	0.33	1.00	0.50	1.00	0.00	1.00	0.75	**0.67**
Kidapawan City	1.00	0.67	0.00	0.00	1.00	0.67	0.25	**0.56**
Mean	**0.67**	**0.84**	**0.25**	**0.50**	**0.50**	**0.84**	**0.50**	**0.62**
SARANGANI								
Maitum	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Maasim	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Alabel	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Kiamba	1.00	0.67	0.00	0.00	1.00	0.67	0.25	**0.56**
Mean	**1.00**	**0.92**	**0.25**	**0.50**	**1.00**	**0.84**	**0.56**	**0.75**
L. DEL SUR								
Wao	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
C. CITY								
Davao City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Over-all Mean	**0.91**	**0.95**	**0.43**	**0.52**	**0.86**	**0.84**	**0.68**	**0.77**

Table 37. 'Old LGUs' with improved/higher level practice/s on FFM, CRM, UEM and LIM in South and Central Mindanao

Province	FFM (Percentage of Total LGUs)	CRM (Percentage of Total LGUs)	UEM (Percentage of Total LGUs)
Sultan Kudarat	Lebak, Kalamansig (66%)	Lebak, Kalamansig (100%)	Lebak, Kalamansig, Isulan (100%)
South Cotabato	Gen San, Tupi, Polomolok, Tboli, Koronadal City (83%)	Gen San (100%)	Gen San, Polomolok, Tboli, Surallah, Koronadal City, Tacurong City (88%)
North Cotabato	Kidapawan City, Makilala (100%)	NA	Kidapawan City (50%)
Sarangani	Maasim, Kiamba, Maitum (100%)	Kiamba, Maitum (67%)	Maasim, Kiamba, Maitum (100%)
Lanao Del Sur	Wao (100%)	NA	Wao (100%)
Davao City	Yes (100%)	Yes (100%)	Yes (100%)
Total	**14 (88%)**	**6 (88%)**	**15 (88%)**

Table 38. Perceived outcomes/results of improved governance in South and Central Mindanao

Sector/Higher Level Practices	LGUs with these experiences	Frequency (% of Assessed LGUs)
FFM		
Improved forest cover	Wao, Davao City, Makilala, Lebak, Kalamansig, Gen San, Polomolok, Koronadal City, Maasim, Kiamba	10 (50%)
Improved income and revenue generation	Makilala, Kalamansig, Gen San, Tupi, Maasim	5 (25%)
Reduction in illegal activities/violations	Wao, Davao City, Makilala, Lebak, Koronadal City	5 (25%)
Improved biodiversity, quality of forest cover	Wao, Davao City, Makilala, Lebak, Tupi, Polomolok, Maasim	7 (35%)
Natural forest conversion stopped/declined	Davao City, Makilala, Tupi, Polomolok, Maasim	5 (25%)
Prevention of open access	Kidapawan City (AMAS site), Makilala, Kalamansig, Gen San, Polomolok, Maasim, Maitum	7 (35%)
CRM		
Reduction of destructive and illegal fishing activities	Davao City, Lebak, Gen San, Maasim (fine mesh net only), Kiamba	5 (62%)
Increased apprehension due to effective enforcement	Kalamansig, Kiamba	2 (25%)
Enhanced fish production/abundance/size especially in immediate vicinity of marine sanctuary	Davao City, Gen San, Kiamba, Maitum	4 (50%)
Cleaner coastal areas	Davao City, Lebak, Gen San, Maasim, Kiamba, Maitum	6 (75%)
Improved status of resources such as mangrove, corals, seagrass, and general biodiversity in MPAs	Davao City, Lebak, Gen San, Maasim, Kiamba, Maitum	6 (75%)
Recognition/Award	Davao City, Maitum	2 (25%)

UEM		
More efficient collection and transport	Wao, Davao City, Kidapawan City, Lebak, Isulan, Polomolok, Koronadal City, Tacurong City, Maasim, Maitum	10 (48%)
Wider collection area	Lebak, Kalamansig, Isulan, Surallah, Koronadal City, Tacurong City, Kiamba, Maitum	8 (38%)
Revenues generated from users' fee	Wao, Davao City, Polomolok, Maasim, Kiamba, Maitum	6 (29%)
Award received for being clean	Polomolok, Tboli, Surallah, Koronadal City, Tacurong City, Maasim, Maitum	7 (33%)
Higher collection of fines and penalties	Wao, Kiamba	2 (10%)
Reduction in incidence of violations	Wao, Davao City, Gen San, Kiamba	4 (19%)
Reduction in street litter, improved aesthetics	Wao, Davao City, Kidapawan City, Lebak, Kalamansig, Isulan, Polomolok, Surallah, Koronadal City, Tacurong City, Maasim, Kiamba, Maitum	13 (62%)
Reduction in air, water, and land pollution sources in the disposal area	Wao, Lebak, Polomolok, Kiamba, Maitum	5 (24%)

Table 39. Common deteriorations in 'best practices' of LGUs in South and Central Mindanao

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
FFM		
Decline in the level of protection/management of natural areas/forest, decline in law enforcement, increase in violations due to illegal activities	Davao City	Lack of financial resources, change in LGU leadership
	Kidapawan City (Brgy Amas, Brgy. Balabag, Ilomavis, Perez)	Lack of law enforcers, lack of IEC, poor political will
	Kiamba (charcoal-making)	
Budget cut/insufficient budget	Kidapawan City	Financial constraints
	Makilala	Funds realigned to addressing impacts of October 2006 bombing, financial constraints
Targets that are not yet achieved- law enforcement, processing of tenure, M&E, investment	Kidapawan City	No monitoring tool, financial constraints, no technical expertise
Forest guards not hired for one month	Koronadal City	Lack of budget
Management body became non-functional	Kidapawan City (FLUP Implementation Committee (first and last meeting in 2006)	Lack of commitment of members, City focused on projects in AMAS refo site
	Koronadal City (Watershed Management Council)	
Technical staff reduced	Koronadal City	Transferred to another office, job contract hiring, change in policy and priorities of LGU
Percent of Total Assessed LGUs	**5 (31%)**	

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
CRM		
Not all planned activities implemented	Maasim	Support municipal ordinance not finalized
CRM management bodies created with unclear functions and accountabilities	Kalamansig	
Percent of Total Assessed LGUs	**2 (25%)**	
UEM		
Composting facility not operationalized	Kidapawan City	Original design not suitable
Segregated collection not sustained/mixed waste being collected	Davao City	Barangays failed to monitor waste management, Barangay collectors not familiar with their task, bins not adequate
Establishment of SLF in 2007 not met, open dump not closed	Koronadal City	Purchase of site not done because of the change in the composition of appraisal committee
Inability to cope with expansion of collection area	Tacurong City	Insufficient collection vehicle
Management body like TWG and ESWMB stopped being functional	Kidapawan City	ESWMB no longer convened by LGU because they were not attending meetings, New mayor has not reactivared the Board and City ENRO does not see the Board's importance
	Isulan	ESWMB and TWG members always absent that quorum was hard to achieve, do not have the required expertise, unsustained interest (*ningas kugon*)
	Maitum	ESWMB became inactive became of lack of regular meeting and proper coordination and technical assistance
	Tacurong City	ESWMB became inactive since 2005 because LGU thinks it is not needed at this point in time, ESWMB highly dependent on LGU decision to convene/mobilize them
Technical staff reduced	Kidapawan City	Technical staff were mostly covered by job contract (no stability in tenure)
	Koronadal City (90% of trained staff reduced)	Staff hired on contractual basis for political reason (provide temporary jobs), constant retraining needed for new batch of contractual personnel
Delayed implementation/achievement of segregation target	Isulan	Financial constraints
	Tacurong City	Lack of equipment
Proposed organizational structure not created	Isulan	Lack of manpower and financial resources
Percent of Total Assessed LGUs	**7 (33%)**	

12.0 WESTERN MINDANAO INDICES: STATE, TRENDS AND DETERMINANTS

The same 17 LGUs that underwent the baseline assessment in 2005 were covered by the mid-term assessment in Western Mindanao. These include four cities (Zamboanga City, Pagadian City, Isabela City and Lamitan City) and 13 municipalities in Zamboanga Del Sur, Zamboanga Sibugay, and Basilan provinces. Fifteen of these LGUs are found along Moro Gulf one of the richest areas in the country in terms of coastal and marine biodiversity and fishery production. Important coastal and marine habitats include mangroves, seaweeds, coral reefs and seagrasses. Zamboanga Sibugay and Basilan provinces still contain significant mangrove and terrestrial forest cover.

The other four key biodiversity areas found in this region are: Basilan Natural Biotic area, Sulu Archipelago, Pasonanca Natural Park, and Mt. Sugarloaf. Several LGUs are hosts to important watersheds which include Mt Timolan National Park, seven watersheds in Zamboanga City, and Isabela and Lamitan watersheds.

Economic and livelihood sources are mainly farm and fisheries related. Large areas are planted to rubber plantations, abaca, coconut, banana, fruit trees and rootcrops. Apart from capture fisheries and aquaculture, the fishing industry consists of fish canning and processing, cold storage and seaweeds farming. Construction of a new major highway to Cotabato City and Cagayan de Oro is expected to accelerate regional growth and development. However, the unpredictable peace and order and threats from both secessionist and criminal elements continue to be the biggest stumbling block to progress.

The area is marked by great cultural diversity. Inhabitants include Christians, indigenous peoples, and Muslims from various tribal groups such as the Tausug, Maranao, Samal Banginis and Yakans.

12.1 Update on Profile of LGUs Covered

Majority of the municipalities belonged to the 4th and 3rd income classes, only one (Ipil) belonged to the first income class **(Table 40),** reflecting the generally financial resource deficient situation in these LGUs. The port city of Zamboanga is not only the largest LGU with its total land area comprising more than one-third of the land areas of all other LGUs combined. It is also the most populous with total population equivalent to around half of the population of all the other LGUs combined, as well as the richest in terms of IRA (billion IRA which is 1/5th of fifth class Isabela City). Population density is predictably highest in the cities, except for the newly created component City, Lamitan.

Except for the four cities and one first class municipality, landscape is characteristically rural and agricultural. This makes management of residual wastes a lesser concern for most LGUs, as compared to forest and coastal resource management. Forestlands comprised around half of total land area in four LGUs, but less than one-fifth of the total land area in the other LGUs. All LGUs are coastal and except for three for which no data was available, host at least one marine protected area. Mangrove forests are still

dominant coastal landscape component, but not as extensive as intact as before the advent of brackish pond fish culture.

Table 41 shows the source of assistance received by the LGUs in the various sectors. Based on this table, LGUs benefited the most assistance from EcoGov and other external sources in CRM. FFM and UEM were the sectors where the LGUs generally depended solely on EcoGov support.

While most LGUs were assisted by EcoGov in only one sector, two LGUs (Isabela City and Lamitan City) were receiving direct technical assistance in all three sectors. EcoGov has recently started providing indirect assistance through an scaling up strategy with the province to Dumalinao, Labangan, and Tungawan on UEM and to RT Lim, Naga and Tungawan to improve their FFM.

12.2 Trend in LGU Spending on the Environment

Table 40 presents data on average yearly spending for the environment from the 20% DF of 15 LGUs for the period 2006-2007. Based on this Table and on the summary provided below, no clear-cut relationship between LGU IRA and environment allocation can be observed. To illustrate, the lone fifth class municipality (Tabina) allocated 300% more funds on environment as compared to the second class City (Pagadian City). In fact, there were six municipalities with higher allocation on environment than Pagadian City. Zamboanga City committed the highest absolute amount on the environment at close to 43 million pesos, bulk of which went to solid waste management.

	Municipal Income Class (No. of LGUs with data)				**City Income Class (No. of LGUs with data)**	
LGU Class	**2nd (1 LGU)**	**3rd (5 LGUs)**	**4th (6 LGUs)**	**5th (1 LGU)**	**2nd (1 LGU)**	**1st Class (1 LGU)**
Average allocation for the envt. in 2006-2007 (PhP)	1,980,000	462,570	462,748	1,300,000	425,000	42.8 million
Average percent Share	17.6%	5%	6.0%	25.7%	0.7%	21%

Table 42 presents the trend in LGUs spending on the environment by sector since the baseline assessment. This Table is summarized below for ease of comparison. A marked decrease on the environment budget after the 2005 baseline assessment can be noticed among the seven LGUs in Zamboanga del Sur. The average mid-term environment budgets of all six Zamboanga Sibugay LGUs also suffered a minor decline. Perhaps this general decline in budget allocation for the environment is among the factors responsible for the slower growth in environmental governance among Western Mindanao LGUs as compared to LGUs assessed in other Ecogov regions.

LGU	Average share of environment in 20% DF, 2004-2005 (No. of LGUs with data)	Average share of environment in 20% DF (%), 2006-2007	Baseline Over-al Index	Midterm Over-All Index
Zamboanga del Sur	18.0% (7 LGUs)	8.8% (7 LGUs)	0.68	0.72
Zamboanga Sibugay	8.7% (6 LGUs)	8.2% (6 LGUs)	0.48	0.52
Average for All LGUs	13.8% (13 LGUs)	8.5% (13 LGUs)	0.59	0.63

12.3 Summary Indices

Table 43 depicts the indices obtained by the LGUs in the various sectors, governance functions and principles and their over-all environmental governance indices. Six (Zamboanga City, Tabina, Pagadian, Tungawan, Dumalinao, Isabela City) or a third of the 17 LGUs have so far achieved well-performing status by registering an over-ll environmental governance index of 0.75 and above. Zamboanga City improved its index further to 0.98 from 0.96 during the baseline assessment.

The well-performing LGUs were characterized by high political support (manifested in terms of high budget allocation) on the environment. Except for Tabina, all have created a functional Environment and Natural Resources Office (ENRO). Western Mindanao had the lowest percentage of well-performing LGUs as compared to the other EcoGov-assisted regions (58% in Northern Luzon, 62% in Central Visayas, and 71% in South and Central Mindanao).

The LGUs that registered relatively low indices were: Buug (0.58), San Pablo (0.53), Ipil (0.51), Lamitan City (0.47), Naga (0.32), and Payao (0.32). These bottom-ranked LGUs generally received no or little outside technical and logistical support on the poorly performing sectors.

As with the LGUs in other EcoGov-assisted regions, Western Mindanao LGUs tend to perform better (i.e., specialize) in EcoGov assisted sectors. An exception was Buug, which performed well in CRM (index of 0.82) although this sector received no assistance from EcoGov nor any other organizations. The opposite is exhibited by Payao which relatively underperformed in CRM (index of 0.53) although this is an EcoGov assisted sector.

Closer examination of the indices by function and by principle, yields the following observations:

- Except for the well-performing LGUs, the LGUs in all provinces generally scored low in all governance principles. They were commonly weakest in accountability and public participation.

- LGUs consistently performed very well in budgeting because they both allocated internal funds and leveraged outside support for the environment
- Law enforcement remained the weakest index by function
- Adoption of best practices on permitting system and procurement high only among Zamboanga del Sur LGUs, low in the two other provinces.

Trend in Over-All LGU Indices

Table 44 compares sector and over-all environmental performance of each LGU for both the baseline and midterm assessments. The results generally indicate a slight improvement in mean over-all LGU environmental governance index for all LGUs which grew from 0.59 during the baseline assessment to the present 0.64. As compared with other regions' performance the growth is rather slow. This trend calls for a closer assessment of current technical assistance strategies to make them better adapted to local circumstances and socio-cultural factors.

Looking at the individual indices, mixed results of LGUs improving in one or two sectors but deteriorating in one or two other sectors can be observed. In fact, as compared to the LGUs in other EcoGov-assisted regions, the LGUs in western Mindanao exhibited more flux in their performance. To illustrate, only three LGUs or 18% of the total of 17 exhibited consistent performance. These LGUs were Isabela City which registered improved indices in all sectors, Zamboanga City which sustained high FFM and CRM indices and improved in UEM, and Tungawan, which improved in FFM and UEM and sustained high index on CRM. Dimataling and Naga were causes of concern since both deteriorated in all three environment sectors.

Lamitan City is a special case. This LGU has been receiving technical assistance from EcoGov in all sectors since 2005 yet it continued to underperform, indicating difficulty in adopting 'best practices' in all sectors. It even registered a slight decline in both FFM and UEM indices. While this LGU improved in CRM the index it obtained in this sector remained low at 0.59 from 0.00 during the baseline assessment.. The reasons behind the recalcitrant performance of this LGU should be studied (Naga and Dimataling also because of the deterioration in all three environment sectors). More so because in spite of its recent induction into city hood in July 2007, its internal management practices index remained at its low baseline level of 0.33. This means that only three of the nine indicators of 'best practices' in internal management had been adopted.

Lamitan City had not solicited any other outside help on environment and depended solely on EcoGov technical assistance. While it was able to formulate resource management plans (FLUP, 10-year ISWM, CRM Plan) in all three sectors, level of implementation of plan remained low. Foremost reason cited was lack of financial support as its low yearly budget of P50,000 for each sector remain unchanged since the baseline assessment. The LGU has created a CENRO position which tended to specialize on UEM concerns and seemed not being effectively used in forest and coastal resource management.

The mean over-all indices and lower and upper range of over-all indices per LGU category improved in all provinces as shown in the summary below.

Range of Over-all Indices	Basilan (2)		Zamboanga Sibugay (6)		Zamboanga del Sur (9)		ALL LGUS (17)	
	Baseline	**Mid Term**	Baseline	**Mid Term**	Baseline	**Mid Term**	Baseline	**Mid Term**
0.00-0.25	0	**0**	0	**0**	0	**0**	0	**0**
0.26-0.50	1 (50%)	**1 (50%)**	2 (33%)	**2 (33%)**	1 (11%)	**0**	4 (23%)	**3 (18%)**
0.51-0.75	1 (50%)	**1 (50%)**	3 (50%)	**3 (50%)**	5 (56%)	**6 (67%)**	9 (53%)	**10 (59%)**
0.76-1.00	0	**0**	1 (17%)	**1 (17%)**	3 (33%)	**3 (33%)**	4 (23%)	**4 (23%)**
Over-all Index Range	0.37-0.54	0.47-0.75	0.30-0.74	0.32-0.77	0.46-0.96	0.53-0.98	0.30-0.96	0.32-0.98
Mean All LGUS	0.46	**0.61**	0.48	**0.51**	0.68	**0.73**	0.59	**0.64**

Trend in Sector Indices

The data in **Table 44** are summarized below to present the trend in sector performance by province and across all LGUs. CRM continued to be the best performing sector across all provinces. FFM (mean index of 0.50) showed minimal improvement over the baseline. The mean UEM index was sustained at baseline level of 0.52. The mean LIM indices slightly improved in both Zamboanga Sibugay and Zamboanga del Sur provinces and across all LGUs.

Basilan exhibited an upward trend only in terms of the CRM index. In Zamboanga Sibugay as well as in Zamboanga del Sur, the mean indices as well as the range of indices in both FFM and CRM slightly improved. However, the mean UEM index declined in both provinces, with a steeper decline exhibited by Zamboanga Sibugay LGUs.

Sector	Basilan		Zamboanga Sibugay		Zamboanga del Sur		ALL LGUS	
	Baseline	**Mid Term**	Baseline	**Mid Term**	Baseline	**Mid Term**	Baseline	**Mid Term**
FFM								
Mean Index	0.57	**0.54**	0.29	**0.32**	0.49	**0.59**	0.43	**0.50**
Range of Indices	0.53-0.60	**0.47-0.60**	0.00-0.67	**0.07-0.80**	0.13-1.00	**0.33-0.93**	0.00-1.00	**0.06-0.93**
CRM								
Mean Index	0.12	**0.71**	0.63	**0.68**	0.88	**0.95**	0.70	**0.81**
Range of Indices	0.0-0.24	**0.59-0.82**	0.18-0.94	**0.24-0.94**	0.71-1.00	**0.88-1.00**	0.00-1.00	**0.23-1.00**
UEM								
Mean Index	0.69	**0.69**	0.94	**0.43**	0.57	**0.53**	0.52	**0.52**
Range of Indices	0.56-0.81	**0.44-0.94**	0.06-0.81	**0.06-0.75**	0.19-0.94	**0.13-1.00**	0.06-0.94	**0.06-1.00**
LIM								
Mean Index	0.50	**0.45**	0.67	**0.69**	0.85	**0.89**	0.75	**0.77**
Range of Indices	0.33- 0.67	**0.33-0.56**	0.44-1.00	**0.56-0.78**	0.56-1.00	**0.67-1.00**	0.33-1.00	**0.33-1.00**

Change in LGU Category

The summary below compares the number of LGUs that belonged to each of the four LGU categories in both the baseline and midterm assessments. Improvement is indicated by the reduction in the number of over-specializing LGUs and increased number of LGUs under the median and well-performing categories. Two LGUs (Naga and Payao) belonged to the consistently poorly performing category. Naga used to be an overspecializing LGU, however, its deteriorated index on CRM and FFM pulled down its over-all environmental governance index. Both LGUs performed poorly in UEM as they were able to adopt only one 'best practice' in this sector.

Index Category	Number, Percentage and Mean Indices of LGUs That Belong to the Category	
	Baseline	Midterm
1-Well Performing	3 (18%) Mean- 0.85	6 (35%) Mean- 0.83
2- Median	3 (18%) Mean-0.62	4 (24%) Mean- 0.62
3- With Generally Low Indices	2 (12%) Mean- 0.34	2 (12%) Mean- 0.32
4- Overspecializing	9 (53%) Mean- 0.54	5 (29%) Mean- 0.56
Average Cross-Sector Index	**0.59**	**0.65**

12.4 Forest Sector Indices

Four LGUs: Zamboanga City, Tabina, Pagadian City and Tungawan top-ranked FFM by registering indices of 0.80 and above **(Table 45)**. The rest of the LGUs registered an index of 0.60 and below. Mean index for all LGUs was 0.50, suggesting still low level of adoption of best practices in this sector. Zamboanga del Sur with mean index of 0.59 relatively performed better in this sector as compared to the other provinces (mean index of LGUs in Zamboanga Sibugay was 0.32).

Bottom ranked LGUs with indices ranging from 0.07-0.47 include: four in Zamboanga del Sur (Tukuran, Dinas, San Pablo, Dimataling), four in Zamboanga Sibugay (Payao, Ipil, Naga, Buug) and Lamitan City in Basilan province.

Poor over-all performance in FFM can be attributed to weak adoption of best practices indicators in all governance principles and functions. The LGUs in Zamboanga Sibugay were generally weakest in accountability, public participation and planning and plan implementation. Not one governance principle and function achieved mean index of 0.50 in this region, the highest mean being 0.41 for planning and plan implementation. The lowest performance was in law enforcement with mean of 0.17. The two LGUs in Basilan province both obtained perfect index on accountability but zero index on law enforcement.

12.5 Coastal Sector Indices

Thirteen (13) out of total of 17 LGUs performed well in CRM (**Table 46**). These include all nine LGUs in Zamboanga del Sur, three in Zamboanga Sibugay (Tungawan, RT Lim and Buug) and Isabela City in Basilan province. Three LGUs (Tukuran, Zamboanga City, Tabina) achieved perfect 1.0 index. All can serve as models of good coastal governance to other LGUs.

The four LGUs that need to catch up were Naga, Lamitan City, Payao and Ipil. They registered indices ranging from 0.24-0.65. In Zamboanga Sibugay where half of the LGUs underperformed, the weakests areas were transparency, accountability and law enforcement. Lamitan City generally underperformed in all governance principles and functions, particularly in accountability (0.00), functionality, law enforcement and permitting system (0.00).

12.6 Urban Sector Indices

Five LGUs (Tabina, Zamboanga City, Buug, Ipil, and Isabela City) performed well in UEM (**Table 47**). Zamboanga City alone achieved the ideal index of 1.00 in this sector. The generally low level of adoption of best practices in UEM can be gleaned from the low mean indices of 0.54 for Zamboanga del Sur, 0.43 for Zamboanga Sibugay and 0.69 for Basilan (owing to the low performance of Lamitan City).

The 11 low performers which registered indices ranging from 0.06 to 0.56 include one of the top waste generating cities- Pagadian with mean index of 0.56. The reason for this city's failure to progress in UEM (index even deteriorated from baseline of 0.63) should be studied since this is an EcoGov assisted sector and this LGU being a city, is a large generator of solid and liquid wastes.

Particularly low level of adoption of best practices can be noticed in Dimataling (0.38) Labangan (0.25), RT Lim (0.25), San Pablo (0.13), Naga (0.06) and Payao (0.06). Three (Dimataling, San Pablo and Labangan) of these LGUs allocated yearly amounts for UEM activities but received no technical or logistical assistance on UEM from EcoGov or any other organizations since the baseline assessment. Outside technical assistance would have had provided clear guidance and focus in the LGU's waste management program. Labangan will be covered by EcoGov upscaling assistance in late 2007. The other three LGUs (San Pablo, Payao, Naga) neither received outside assistance nor allocated funds for this sector (with the exception of Naga which recently allocated funds for solid waste management).

The LGUs were commonly weak in law enforcement and in transparency. With mean index of 0.22, public participation was generally poorest among Zamboanga Sibugay LGUs. Wider adoption of best practices on permitting and licensing was noticed among Zamboanga del Sur LGUs (mean index of 0.78) while the opposite can be said of the LGUs in Zamboanga Sibugay (mean index of 0.17).

12.7 LGU Internal Management Indices

Nine LGUs were good performers in internal management practices, five (Zamboanga City, Tabina, Pagadian City, Dimataling, Dumalinao) of which registered ideal index of 1.00 (**Table 48**). With mean index of 0.89, the LGUs in Zamboanga del Sur topped this sector.The four bottom-ranked LGUs include the two Basilan cities of Lamitan (index of 0.33) and Isabela (0.56), and the Zamboanga Sibugay LGUs of Naga (0.56) and Payao (0.56).

Budgeting (both in terms of LGUs committing own funds and leveraging for outside assistance) was the most commonly adopted governance function. Except for those in Zamboanga del Sur, the LGUs tend to underperform in best practices relating to bidding, contracting and procurement and cross-cutting functions (cut across all functions in LIM such as database and personnel management). The governance principles where the LGUs seemed least able to adopt best practices indicators were accountability and public participation.

The seven LGUs that registered zero accountability index were Tukuran, Labangan, Rt Lim, Naga, Payao, Payao, Isabela City, and Lamitan City. The nine LGUs with zero index on public participation were San Pablo, Tukuran, Buug, RT Lim, Naga, Payao, Isabela City and Lamitan.The LGUs with relatively low transparency include Labangan, Payao, Isabela City and Lamitan. The LGUs with lower degree of functionality include Buug (0.67), Naga (0.67), and Lamitan (0.33)

12.8 Adoption of Higher Level "Best Practices"

Half of the LGUs were able to adopt improved or higher level practices in FFM, more than 80% adopted improved practices in CRM and below 50% engaged in higher level practices in UEM (**Table 49**). This trend coincides with the observed trend in LGU performance in these sectors (i.e., CRM being the best performing sector, UEM the least).

Common best practices in FFM include the conduct of tenure assessment in LGUs with FLUPs, upland livelihood support and investments, forest rehabilitation, and better multisectoral coordination in forest law enforcement. In CRM, common higher level practices pertain to LGU clustering for law enforcement and MPA management, updating of plan and formulation of annual work program, MPA monitoring, enhanced IEC, enhanced law enforcement activity, refinement of licensing and permitting system, and increased/regular budget allocation for CRM. In UEM, commonly adopted higher level practices include widened waste segregation coverage, increased adoption of composting, more targeted IEC, allocation of regular budget for UEM, networking with other organizations, and investment on new SWM machinery/equipment. Pagadian City took care of its special wastes by constructing a vault for infectious wastes and its waste water by engaging in the formulation of a waste water treatment plan.

12.9 Perceived Outcomes/Results of Improved Environmental Governance

Improved governance resulted in certain perceived outcomes/results in some LGUs (**Table 50**). In FFM, Tabina and Labangan reported improved forest cover, forest quality and biodiversity. The three most common perceived outcomes of improved CRM were: reduced illegal and destructive fishing (59% of total LGUs), improved cover and quality of mangroves, corals and seagrass (53%), and enhanced fish production, fish size and abundance (47%). Other benefits perceived include cleaner coast, enforced coastal zone and recognition/award received.

In UEM, adoption of best practices was perceived to have resulted in more efficient collection and transport (35% of the LGUs), wider service area for collection (24%), improved generation of revenues from user's fees (24%), and cleaner streets (24%). Two LGUs- Tabina and RT Lim received awards for solid waste management practices.

12.10 Deteriorations in "Best Practices"

Several LGUs reported certain deteriorations in their FFM, CRM and UEM practices (**Table 51**). In FFM, four LGUs (Buug, Isabela City, RT Lim, Tungawan) perceived a deterioration in their natural forest cover as these become converted to non-forest uses such as plantation, settlement and illegal logging remained unstopped. Patrolling and guarding activities became irregular at certain times in Labangan, Lamitan, Isabela City and Tungawan due to reasons such as budgetary constraints and change in political leadership. Isabela City blamed the decline in law enforcement and the resulting increase in incidence of illegal activities as well as the poor track record in FLUP implementation to financial constraints, change in LGU leadership, conflicts among local politicians in power, conflict within LGU and DENR and unsustained budget and interest of FLUP implementation team members. FLUP implementation in Lamitan was also hampered by lack of technical expertise and budget limitations. Tukuran did not push through with planned creation of a MENRO due to financial constraint. Lamitan's FLUP TWG and Implementation Team became non-functional due to limited finances, conflicts in schedules and unclear functions, lack of technical expertise and unsustained interest of members due to lack of incentives.

Six LGUs reported various types of deteriorations in their best practices in CRM. These retrogressions include reduction in the number of Bantay Dagat enforcers, increased incidence of violations, unsustained patrolling and guarding, non-implementation of planned activities, non creation of LGU ENRO position, unsustained implementation of activities, decreased budget, lost functionality of management body. Reasons cited were varied and multiple: technical, financial/logistical, lack of incentives, lack of political support and change LGU leadership.

In UEM, almost half (47%) of the LGUs encountered certain deteriorations in their best practices, owing to various technical (lack of expertise), financial, physical (inavailability of suitable disposal site), institutional, and political (change in LGU leadership) reasons. This deterioration is reflected by the decline in UEM indices of these LGUs.

The names of the LGUs whose over-all indices and certain sectoral indices weakened or remained very low are listed below. EcoGov should see how these LGUs can be effectively assisted in order to reverse the deterioration and lack of progress in their environmental governance performance.

FFM			CRM			UEM			Over-all		
	BL	**MT**		**BL**	**MT**		**BL**	**MT**		**BL**	**MT**
Dimataling	0.27	**0.20**	Dimataling	0.94	0.63	Tukuran	0.56	**0.50**	Dimataling	0.53	**0.74**
Ipil	0.27	**0.20**	Dinas	1.00	**0.94**	Dumalinao	0.55	**0.50**	Naga	0.47	**0.32**
Buug	0.13	**0.06**	RT Lim	0.94	**0.88**	San Pablo	0.25	**0.13**			
Lamitan City	0.60	**0.47**	Ipil	0.29	**0.23**	Labangan	0.50	**0.25**			
			Naga	0.82	**0.65**	Tabina	0.88	**0.81**			
			Payao	0.59	**0.53**	Pagadian City	0.63	**0.56**			
						Dimataling	0.63	**0.38**			
						RT Lim	0.25	**0.25**			
						Naga	0.19	**0.06**			
						Payao	0.06	**0.06**			
						Lamitan City	0.56	**0.44**			

Table 40. Profile of LGUs That Underwent GSA in Western Mindanao

Province/LGU	Population (2000)	Barangays		Land Area (ha)	Pop'n Density (pax/ha)	Forestland (hectares; % of total land area)	Terrestrial Protected Area	Coastline (km)	Number/ Total size of MPA	Income Class	Ave. IRA (million pesos, 2006-07)[14]	Ave. % Env't Share, 20% DF (million pesos, 06-07)
		Total	Urban									
Basilan												
Isabela City	73,032	45	18	22,645	3.2	11,280 (50%)	Basilan Natural Biotic Area(2,424 ha)	39.5	No data	5th	**221,031,792**	No data
Lamitan City	58,640	45	6	26,226	2.0	4,235 (16%)	Basilan Natural Biotic Area (1,198)	36	Maloong Canal Shoal (100 ha)		**62,341,780**	No data
Z. Sibugay												
Tungawan	33,194	25	0	47,378	0.7	20,775 (44%)	no data	47	2 (one is 880 ha)	3rd	50,860,000	910,000 (8.9%)
RT Lim	34,152	26	5	48,800	0.8	23,380 (50%)	no data	12	1 (112.18)	3rd	43,249,572	405,000 (4.7%)
Ipil	52,481	28	8	36,690	1.4	17,619 (48%)	no data	no data	No data	1st	56,291,059	1,980,000 (17.6%)
Naga	35,176	23	1	24,630	1.6	3,225 (13%)	no data	20	1 (124)	3rd	**45,236,593**	300,000 (3.3%)
Buug	33,623	27	3	13,737	1.4	1,214 (9%)	watershed forest reserve (108)	27	No data	3rd	37,249,856	469,348 (6.03%)
Payao	27,036	29	1	24,566	1.3	3102 (13%)	Kabog Island (100 ha), Panilusan Island (1.7 has), mangrove-3000 ha	27	1 (224)	4th	33,576,228	560,000 (8.3%)
Z. Del Sur												
Tukuran	33,747	25		13,925	2.4	7072 (60%)	No data	5.88	2 (230)	4th	39,659,764	915,000 (11.5%)
Dumalinao	26,030	30	3	11,759	2.2	435 (4%)	No data	16.14	2 (42)	3rd	30,480,000	228,500 (3.8%)
San Pablo	23,450	28	2	14,990	1.6	2058 (14%)	No data	20	3 (214)	4th	33,096,711	220,000 (3.3%)
Labangan	34,530	25		17,722	1.9	no data	No data	4.3	2 (70)	4th	41,313,162	225,000 (2.7%)
Zamboanga City	601,794	98	30	148,338	4.0	2609 (2%)	Pasonanca National Park	No data	3 (472)	1st	1,015,361,518	42,800,000 (21%)
Tabina	21,882	15	1	8,690	3.0	1630 (19%)	No data	26.41	3 (154 ha)	5th	25,262,130	1,300,000 (25.7%)
Pagadian City	142,515	54	13	37,880	4.6	9000 (24%)	Mt. Sugarloaf	19.86	2 (155 ha)	2nd	308,049,000	425,000 (0.7%)
Dimataling	25,843	24	2	14,150	1.9	No data	No data	16.14	2 (98 ha)	4th	31,120,421	206,485 (3.3)
Dinas	31,570	30	3	16,274	1.9	1800 (11%)	None	28.65	1 (204 ha)	4th	33,292,787	650,000 (9.8%)

[14] Figures in bold are for 2007 only

Table 41. Type and period of assistance received by LGUs in 2003-2007 in Western Mindanao

Province	EcoGov 2 Technical Assistance			Assistance from other organizations		
LGU	**FFM**	**CRM**	**UEM**	**FFM**	**CRM**	**UEM**
Basilan						
Isabela City	2003-present	2005-present	2003-present	WMCIP, BIARPS	DA-BFAR, NAMRIA, GEM, Magdilaapo	None
Lamitan City	Yes	Yes	Yes	None	None	None
Zamboanga Sibugay						
Tungawan	Upscaling	CRM Plan, Fisheries Mgt. Plan, MPA Plan	Upscaling	JBIC, Congressman,, DA	DA-BFAR, PLGU,	None
RT Lim	Upscaling	Yes	None	None	PLGU	None
Ipil	None	None	2003-present	None	WINCIP, LGSP	Congressional fund
Naga	Upscaling	Yes	None	None	BFAR	None
Buug	None	None	Yes	None	None	None
Payao	None	Yes	None	Philippine-Canadian Devt. Fund	Philippine-Canadian Devt. Fund, DENR	Philippine-Canadian Devt. Fund
Zamboanga Del Sur						
Tukuran	None	Yes	None	None	IBRA 9, PCDF, MIDCO, DENR, LAFCOD, NGOs, AFP First Tabak Division	None
Dumalinao	None	Yes	For upscaling	None	IBRA 9	PCDF/LGSP
San Pablo	None	Yes	None	None	IBRA 9	None
Labangan	None	Yes	For upscaling	None	IBRA 9, PCDF	None
Zamboanga City	Yes	None	None	DENR (watershed characterization), WNPC	BFAR, DOLE, CDF	No data
Tabina	None	Yes (direct TA and grant)	None	DENR	IBRA 9, DOST, DENR, BFAR, PCDF, Logofind	DOH
Pagadian City	None	Yes	Yes	No data	IBRA 9	No data
Dimataling	None	Yes	None	None	IBRA 9-PCDF, BFAR, DENR	None
Dinas	None	Yes	None	None	IBRA 9	None

Table 42. Average yearly budget allocated on FFM, CRM and UEM of LGUs in Western Mindanao in 2006-2007 (data in parenthesis are for 2004-2005)

Province/ LGU	Income Class	FFM Budget	CRM Budget	UEM Budget	FFM (P/ha)	CRM (P/km)	UEM (P/capita)
Z. Sibugay							
Tungawan	3rd	510,000 (100,000)	no data (100,000)	400,000 (100,000)	24.55 (5)	no data	12.05 (3)
Naga	3rd	50,000 (0.00)	150,000 (200,000)	100,000 (0.00)	15.50 (0.00)	7,500.00 (10,000)	2.84 (0.00)
Ipil	1st	0.00 (335,000)	80,000 (307,000)	1.9 million (2.9 million)	0.00	No data on length of coastline	36.20 (84.9)
Buug	3rd	15,000 (100,000)	125,000 (0.0)	No data (100,000)	4.65 (31)	4,629 (0.00)	(2.84)
Z. Del Sur							
Zamboanga City	1st	3,000,000	800,000	39,000,000	1,150	No data on extent of coastline	64.80
Tukuran	4th	15,000 (47,000)	775,000 (720,000)	125,000 (816,000)	4.24 (6.64)	131,802.70 (122,449)	7.41(24.2)
Dumalinao	3rd	None (0.00)	178,500 (100,00)	50,000 (no data)	0.00	11,059.50 (6,195.8)	3.84
San Pablo	4th	None (600,000)	155,000 (191,000)	65,000 (80,000)	0.00 (291.5)	7,750.00 (9550)	5.54 (3.4)
Labangan	4th	65,000	125,000	35,000	no data on forestland size	29,069.77	2.03
Tabina	5th	24,372.50 (50,000)	901,000 (720,000)	376,000 (70,000)	14.95 (30.7)	552.76 (27262)	17.18 (0.31)
Pagadian City	2nd	350,000 (no data)	50,000 (1,600,000)	25,000 (3,020,000)	38.89	5,035.00 (80,563.9)	1.75 (21.2)
Dimataling	4th	50,985	50,985	50,985	no data on forestland size	27,912.00	1.97
Dinas	4th	50,000.00 (no data)	450,000.00 (661,000)	150,000 (166,012)	27.8	15,707.00 (23,071)	4.75 (5.26)

Table 43. Summary of Environmental Governance Indices of LGUs in Western Mindanao

Province & Municipality	By Specific Sector				By Governance Principle, Across Sectors				By Governance Function, Across Sectors						Overall LGU Index
	FFM	*CRM*	*UEM*	*LIM*	*F*	*T*	*A*	*P*	*Plng*	*Laws*	*Issu*	*Bdgt*	*Proc*	*Cros*	
Z. Sur															
Zamboanga City	0.93	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.96	1.00	1.00	1.00	1.00	1.00	0.98
Tabina	0.80	1.00	0.81	1.00	0.84	1.00	0.80	1.00	0.79	1.00	1.00	1.00	1.00	1.00	0.89
Pagadian City	0.80	0.94	0.56	1.00	0.78	0.90	0.80	0.80	0.86	0.58	0.67	1.00	1.00	0.89	0.81
Dumalinao	0.73	0.88	0.50	1.00	0.84	0.60	0.80	0.60	0.71	0.67	1.00	1.00	1.00	0.78	0.75
Dinas	0.47	0.94	0.69	0.89	0.84	0.60	0.80	0.50	0.75	0.50	1.00	1.00	1.00	0.78	0.74
Tukuran	0.47	1.00	0.50	0.67	0.72	0.80	0.40	0.50	0.64	0.67	1.00	1.00	0.67	0.56	0.67
Labangan	0.60	0.94	0.25	0.67	0.63	0.70	0.40	0.60	0.54	0.58	1.00	1.00	1.00	0.56	0.61
Dimataling	0.20	0.94	0.38	1.00	0.56	0.80	0.60	0.50	0.50	0.42	0.67	1.00	1.00	0.89	0.60
San Pablo	0.33	0.94	0.13	0.78	0.59	0.60	0.40	0.30	0.43	0.42	1.00	1.00	0.67	0.67	0.53
Mean	**0.59**	**0.95**	**0.53**	**0.89**	**0.75**	**0.78**	**0.67**	**0.64**	**0.69**	**0.65**	**0.93**	**1.00**	**0.93**	**0.79**	**0.73**
Z. Sibugay															
Tungawan	0.80	0.94	0.56	0.78	0.78	0.53	0.60	0.60	0.79	0.67	0.67	1.00	0.67	0.89	0.77
RT Lim	0.60	0.88	0.25	0.67	0.63	0.60	0.40	0.60	0.71	0.25	0.67	1.00	0.67	0.56	0.60
Buug	0.07	0.82	0.75	0.67	0.63	0.80	0.60	0.20	0.57	0.50	0.67	0.50	0.67	0.67	0.58
Ipil	0.20	0.24	0.88	0.89	0.59	0.50	0.40	0.30	0.54	0.25	0.33	1.00	1.00	0.56	0.51
Naga	0.07	0.65	0.06	0.56	0.34	0.40	0.20	0.20	0.36	0.00	0.33	0.50	0.67	0.44	0.32
Payao	0.20	0.53	0.06	0.56	0.41	0.40	0.20	0.00	0.32	0.17	0.33	1.00	0.33	0.33	0.32
Mean	**0.32**	**0.68**	**0.43**	**0.69**	**0.56**	**0.54**	**0.40**	**0.32**	**0.55**	**0.31**	**0.50**	**0.83**	**0.67**	**0.57**	**0.51**
Basilan															
Isabela City	0.60	0.82	0.94	0.56	0.78	0.80	0.60	0.70	0.89	0.50	1.00	1.00	0.33	0.67	0.75
Lamitan City	0.47	0.59	0.44	0.33	0.50	0.50	0.40	0.40	0.64	0.17	0.00	0.50	0.33	0.56	0.47
Mean	**0.53**	**0.71**	**0.69**	**0.44**	**0.64**	**0.65**	**0.50**	**0.55**	**0.77**	**0.33**	**0.50**	**0.75**	**0.33**	**0.61**	**0.61**

Table 44. Comparison of baseline and mid-term GSA results for LGUs in Western Mindanao

Province	Indices (No. of LGUs Covered)										Change in Category
	FFM		CRM		UEM		Internal Management		Over-all		
Zamboanga del Sur (9)	Baseline	Midterm	Baseline	Midterm	Baseline	Midterm	Baseline	Midterm	Baseline	Midterm	
Tukuran	0.20	0.47	0.88	1.00	0.56	0.50	0.56	0.67	0.56	0.67	C4 to C2
Dumalinao	0.60	0.73	0.71	0.88	0.55	0.50	0.89	1.00	0.67	0.75	C2 to C1
San Pablo	0.13	0.33	0.71	0.94	0.25	0.13	0.88	0.78	0.46	0.53	C2 to C4
Labangan	1.00	0.60	0.82	0.94	0.50	0.25	0.89	0.67	0.78	0.61	C1 to C2
Zamboanga City	0.93	0.93	1.00	1.00	0.94	1.00	1.00	1.00	0.96	0.98	C1 to C1
Tabina	0.47	0.80	1.00	1.00	0.88	0.81	0.89	1.00	0.81	0.89	C1 to C1
Pagadian City	0.67	0.80	0.82	0.94	0.63	0.56	0.89	1.00	0.74	0.81	C2 to C1
Dimataling	0.27	0.20	0.94	0.63	0.63	0.38	0.78	1.00	0.65	0.60	C4 to C4
Dinas	0.13	0.47	1.00	0.94	0.19	0.69	0.89	0.89	0.53	0.74	C4 to C2
Mean	*0.49*	*0.59*	*0.88*	*0.92*	*0.57*	*0.54*	*0.85*	*0.89*	*0.68*	*0.73*	
Z. Sibugay (6)											
Tungawan	0.67	0.86	0.94	0.94	0.38	0.56	1.00	0.78	0.74	0.79	C4 to C1
RT Lim	0.27	0.60	0.94	0.88	0.25	0.25	0.67	0.67	0.53	0.60	C4 to C4
Ipil	0.27	0.20	0.29	0.23	0.81	0.88	0.44	0.88	0.46	0.51	C4 to C4
Naga	0.40	0.07	0.82	0.65	0.19	0.06	0.44	0.56	0.47	0.32	C4 to C3
Buug	0.13	0.06	0.18	0.82	0.69	0.75	0.78	0.67	0.40	0.58	C4 to C4
Payao	0	0.30	0.59	0.53	0.06	0.06	0.67	0.56	0.30	0.32	C3 to C3
Mean	0.29	0.35	0.63	0.68	0.40	0.43	0.67	0.69	0.48	0.52	
Basilan (2)											
Isabela City	0.53	0.60	0.24	0.82	0.81	0.94	0.67	0.56	0.54	0.75	C4 to C1
Lamitan	0.60	0.47	0.00	0.59	0.56	0.44	0.33	0.33	0.37	0.47	C3 to C2
Mean	*0.57*	*0.54*	*0.12*	*0.71*	*0.69*	*0.69*	*0.50*	*0.45*	*0.46*	*0.61*	
Over-all Mean	*0.43*	*0.50*	*0.70*	*0.81*	*0.52*	*0.52*	*0.75*	*0.77*	*0.59*	*0.64*	

Table 45. Forest and forestland management (FFM) specific indices of LGUs in Western Mindanao

Province/LGU	Forests & Forestlands Management							
	F	T	A	P	Planning	Law Enforcement	Cross-cutting	FFM
Zamboanga del Sur								
Zamboanga City	0.89	1.00	1.00	1.00	0.89	1.00	1.00	**0.93**
Tabina	0.78	1.00	0.00	1.00	0.67	1.00	1.00	**0.80**
Pagadian City	0.78	1.00	1.00	0.67	0.89	0.75	0.50	**0.80**
Dumalinao	0.89	1.00	0.00	0.33	0.67	1.00	0.50	**0.73**
Labangan	0.56	0.50	0.00	1.00	0.44	0.75	1.00	**0.60**
Tukuran	0.56	0.50	0.00	0.33	0.33	0.75	0.50	**0.47**
Dinas	0.67	0.00	1.00	0.00	0.56	0.25	0.50	**0.47**
San Pablo	0.56	0.00	0.00	0.00	0.33	0.25	0.50	**0.33**
Dimataling	0.33	0.00	0.00	0.00	0.22	0.00	0.50	**0.20**
Mean	*0.67*	*0.56*	*0.33*	*0.48*	*0.56*	*0.64*	*0.67*	**0.59**
Zamboanga Sibugay								
Tungawan	0.78	1.00	1.00	0.67	0.78	0.75	1.00	**0.80**
RT Lim	0.44	0.50	1.00	1.00	0.78	0.25	0.50	**0.60**
Payao	0.33	0.00	0.00	0.00	0.33	0.00	0.00	**0.20**
Ipil	0.33	0.00	0.00	0.00	0.33	0.00	0.00	**0.20**
Naga	0.11	0.00	0.00	0.00	0.11	0.00	0.00	**0.07**
Buug	0.11	0.00	0.00	0.00	0.11	0.00	0.00	**0.07**
Mean	*0.35*	*0.25*	*0.33*	*0.28*	*0.41*	*0.17*	*0.25*	**0.32**
Basilan								
Isabela City	0.56	0.50	1.00	0.67	0.89	0.00	0.50	**0.60**
Lamitan	0.44	0.50	1.00	0.33	0.56	0.00	1.00	**0.47**
Mean	*0.50*	*0.50*	*1.00*	*0.50*	*0.73*	*0.00*	*0.75*	**0.54**

Table 46. Coastal resource management (CRM) specific indices of LGUs in Western Mindanao

Province/LGU	Coastal Resources Management								
	F	***T***	***A***	***P***	***Planning***	***Law Enforcement***	***Permit Issuance***	***Cross-Cutting***	***CRM***
Zamboanga Del Sur									
Tukuran	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Zamboanga City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tabina	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Pagadian City	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
Dimataling	1.00	1.00	1.00	0.67	0.89	1.00	1.00	1.00	**0.94**
Dinas	1.00	1.00	1.00	0.67	0.89	1.00	1.00	1.00	**0.94**
San Pablo	0.90	1.00	1.00	1.00	0.89	1.00	1.00	1.00	**0.94**
Labangan	1.00	1.00	1.00	0.67	0.89	1.00	1.00	1.00	**0.94**
Dumalinao	0.80	1.00	1.00	1.00	0.89	0.75	1.00	1.00	**0.88**
Mean	0.96	1.00	1.00	0.89	0.93	0.97	1.00	1.00	0.95
Zamboanga Sibugay									
Tungawan	1.00	1.00	0.00	1.00	0.89	1.00	1.00	1.00	**0.94**
RT Lim	0.90	0.67	1.00	1.00	1.00	0.50	1.00	1.00	**0.88**
Buug	0.90	1.00	1.00	0.33	0.78	0.75	1.00	1.00	**0.82**
Naga	0.70	0.33	1.00	0.67	0.89	0.00	0.50	1.00	**0.65**
Payao	0.60	0.67	1.00	0.00	0.56	0.50	0.50	0.50	**0.53**
Ipil	0.40	0.00	0.00	0.00	0.22	0.25	0.00	0.50	**0.24**
Mean	0.75	0.61	0.67	0.50	0.72	0.50	0.67	0.83	**0.68**
Basilan									
Isabela City	0.80	1.00	1.00	0.67	0.89	0.50	1.00	1.00	**0.82**
Lamitan	0.60	0.67	0.00	0.67	0.67	0.50	0.00	1.00	**0.59**
Mean	0.70	0.84	0.50	0.67	0.78	0.50	0.50	1.00	**0.71**

Table 47. Urban environmental management (UEM) specific indices of LGUs in Western Mindanao

Province/LGU	Urban Environment Management								
	F	***T***	***A***	***P***	***Planning***	***Law Enforcement***	***Permit/ license Issuance***	***Cross-cutting***	***UEM***
Zamboanga del Sur									
Zamboanga City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tabina	0.70	1.00	1.00	1.00	0.70	1.00	1.00	1.00	**0.81**
Dinas	0.80	0.00	1.00	0.67	0.80	0.25	1.00	1.00	**0.69**
Pagadian City	0.60	0.50	0.00	0.67	0.80	0.00	0.00	1.00	**0.56**
Tukuran	0.50	0.50	0.50	0.33	0.60	0.25	1.00	0.00	**0.50**
Dumalinao	0.67	0.00	1.00	0.33	0.67	0.25	1.00	0.00	**0.50**
Dimataling	0.22	1.00	0.00	0.67	0.40	0.25	0.00	1.00	**0.38**
Labangan	0.20	0.50	1.00	0.00	0.30	0.00	1.00	0.00	**0.25**
San Pablo	0.20	0.00	0.00	0.00	0.10	0.00	1.00	0.00	**0.13**
Mean	0.54	0.50	0.61	0.52	0.60	0.33	0.78	0.56	**0.54**
Zamboanga Sibugay									
Ipil	0.90	1.00	1.00	0.67	1.00	0.50	1.00	1.00	**0.88**
Buug	0.80	1.00	1.00	0.33	0.80	0.75	0.00	1.00	**0.75**
Tungawan	1.00	1.00	1.00	0.33	0.70	0.25	0.00	1.00	**0.56**
RT Lim	0.40	0.00	0.00	0.00	0.40	0.00	0.00	0.00	**0.25**
Naga	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	**0.06**
Payao	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	**0.06**
Mean	0.55	0.50	0.50	0.22	0.52	0.25	0.17	0.50	**0.43**
Basilan									
Isabela City	0.90	1.00	1.00	1.00	0.90	1.00	1.00	1.00	**0.94**
Lamitan	0.50	0.00	1.00	0.33	0.70	0.00	0.00	0.00	**0.44**
Mean	0.70	0.50	1.00	0.67	0.80	0.50	0.50	0.50	**0.69**

Table 48. LGU internal management practices (LIM) specific indices of LGUs in Western Mindanao

Province/LGU	LGU Internal Management							
	F	***T***	***A***	***P***	***Budgeting***	***Bidding Contracting Procurement***	***Cross-cutting***	***LIM***
Zamboanga del Sur								
Zamboanga City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Tabina	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Pagadian City	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dimataling	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dumalinao	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**
Dinas	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
San Pablo	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Tukuran	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Labangan	1.00	0.67	0.00	1.00	1.00	1.00	0.25	**0.67**
Mean	1.00	0.96	0.67	0.78	1.00	0.93	0.81	**0.89**
Zamboanga Sibugay								
Tungawan	1.00	1.00	0.50	0.00	1.00	0.67	0.75	**0.78**
Ipil	1.00	1.00	0.50	1.00	1.00	1.00	0.75	**0.89**
Buug	0.67	1.00	0.50	0.00	0.50	0.67	0.75	**0.67**
RT Lim	1.00	1.00	0.00	0.00	1.00	0.67	0.50	**0.67**
Naga	0.67	1.00	0.00	0.00	0.50	0.67	0.50	**0.56**
Payao	1.00	0.67	0.00	0.00	1.00	0.33	0.50	**0.56**
Mean	0.89	0.95	0.25	0.17	0.83	0.67	0.63	**0.69**
Basilan								
Isabela City	1.00	0.67	0.00	0.00	1.00	0.33	0.50	**0.56**
Lamitan	0.33	0.67	0.00	0.00	0.50	0.33	0.25	**0.33**
Mean	0.67	0.67	0.00	0.00	0.75	0.33	0.38	**0.45**

Table 49. LGUs with improved/higher level practices in FFM, CRM, and UEM in Western Mindanao

Province	FFM (Percentage of Total LGUs)	CRM (Percentage of Total LGUs)	UEM (Percentage of Total LGUs)
Zamboanga Del Sur	Tabina, Dumalinao, Pagadian City, Labangan (forest law enforcement), Zamboanga City **(56%)**	Tabina, Dumalinao, Dimataling, Pagadian City, San Pablo, Tukuran, Labangan, Zamboanga City **(89%)**	Tabina, Dimataling, Pagadian City **(33%)**
Zamboanga Sibugay	RT Lim, Tungawan **(33%)**	Buug, Payao, Tungawan, Naga **(67%)**	Buug, Ipil, RT Lim, Tungawan **(67%)**
Basilan	Lamitan, Isabela City **(100%)**	Lamitan, Isabela City **(100%)**	Isabela City **(50%)**
Total	**9 (53%)**	**14 (82%)**	**8 (47%)**

Table 50. Perceived outcomes/results of improved governance in Western Mindanao

Sector/Higher Level Practices	LGUs with these experiences	Frequency (% of Assessed LGUs)
FFM		
Improved forest cover	Tabina, Labangan	2 **(12%)**
Improved biodiversity, quality of forest cover	Tabina	1 **(6%)**
CRM		
Reduction of destructive and illegal fishing activities outside no take area of MPA	Tabina, Dumalinao, Dimataling, Tukuran, Labangan, Lamitan, Isabela City, RT Lim, Tungawan, Naga	10 **(59%)**
Improved status of resources such as mangrove, corals, seagrass, and general biodiversity in MPAs	Tabina, Dumalinao, Dimataling, Tukuran (although charcoal-making not effectively controlled), Labangan, Lamitan, Isabela City, RT Lim, Tungawan	9 **(53%)**
Enhanced fish production/abundance/size especially in immediate vicinity of marine sanctuary	Tabina, Dumalinao, Dimataling, Tukuran, Labangan, Lamitan, RT Lim, Tungawan	8 **(47%)**
Cleaner coastal areas	Tabina, Dumalinao, Tukuran, Labangan, Tungawan	5 **(29%)**
Recognition/Award	Dumalinao, Dimataling (for Bantay Dagat), Tukuran (MPA award)	3 **(18%)**
Enforced coastal zone	Tukuran	1 **(6%)**
UEM		
More efficient collection and transport	Buug, Tabina, Tukuran, Pagadian City, Isabela City, RT Lim	6 **(35%)**
Wider collection area	Tabina, Pagadian City, Tukuran, Isabela City	4 **(24%)**
Revenues generated from users' fee	Tabina, Tukuran, Isabela City, RT Lim	4 **(24%)**
Reduction in street litter, improved aesthetics	Buug, Tabina, Tukuran, Isabela City	4 **(24%)**
Award received for being clean	Tabina (Galing Pook provincial level), RT Lim (Barangay)	2 **(12%)**

Table 51. Common deteriorations in 'best practices' of LGUs in Western Mindanao

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
FFM		
Decline in the level of protection/ management, decline in law enforcement, increase in violations due to illegal activities	Isabela City	Financial constraints, change in LGU leadership, political conflicts
Decline in natural forest cover, further conversion of natural forest to non-forest uses	Buug	Unbriddled illegal logging, CSC holders doing clearing
	Isabela City	
	RT Lim	Forests converted to rubber and pfruit trees plantation
	Tungawan	Houses built/encroachment by IFMA tenure holders
Ordinance designating a MENRO but was not implemented	Tukuran	Financial constraints
Irregular patrolling and guarding	Labangan, Lamitan,	Lack of funds
	Isabela City, Tungawan	Lack of funds, change in political leadership
FLUP only partially implemented	Lamitan	Financial constraints, lack of technical expertise
FLUP TWG and Implementation Team stopped being functional	Lamitan	Financial constraints, conflicts in schedules and functions, lack of technical expertise, unsustained interest of members
	Isabela City	Lack of logistics support, lack of internal technical expertise, unsustained interest of members, change in LGU leadership, conflicts/misunderstanding (LGU and DENR)
LGU appropriation for FLUP implementation not released hindering activities	Isabela City	Lack of technical assistance from DENR and EcoGov, lack of internal technical expertise, political conflicts, change in LGU leadership
Budget for FFM-TWG reduced	Isabela City	Change in LGU leadership, political conflicts
Percent of Total Assessed LGUs	**7 (41%)**	
CRM		
Number of Bantay Dagat reduced	Dinas	
Increase in incidence of violations	Payao	Laxity on enforcement/unsustained guarding and patrolling
	Buug	Lack of Bantay Dagat personnel, undelineated municipal water, overlap with NIPAS, no fire arms, fish ordinance needs amendment & lacks IRR, unsustained patrolling and guarding activities, peace and order
	Isabela City	Inadequate enforcemenr
	Tukuran	Intruders from other provinces difficult to control because they were armed.
Unsustained patrolling and guarding	Naga	lack of logistics support, no incentives for Bantay Dagat
Certain planned activities not implemented	Isabela City	Financial constraintas, lack of technical expertise, change in administration, political conficts
Planned creation of CENRO not implemented	Isabela City	Not a priority of present administration, lack of financial resources, lack of technical expertise

Sector/Deteriorations	LGUs with these experiences	Cited reasons for deterioration
Bouys not maintained	Payao	
Further degradation of habitats	Payao	
	Naga	Illegal activities continued
Unsustained implementation of activities	Buug, Payao	Lavk of support/commitment from the Mayor and Sangguniang Bayan
Management body not sustained/became non-functional	Tukuran (MPA Management Team and MFARMC)	Affected by the elections and change in LGU leadership, MFARMC lacked resources, Fishery Coordinator became discouraged and became inactive
	Naga (MPA Office and NAMAPA Board)	Financial constraints
Decreased budget	Naga	Financial constraint
Percent of Total Assessed LGUs	6 **(35%)**	
UEM		
Barangays stopped managing waste	Buug	Inavailability of dumpsite
ISWM Plan not implemented	Lamitan	No budget was allocated (financial constraint), lack of technical expertise,
Segregated waste became mixed at point of collection	Tukuran	
Conflicts within ISWM organization	Lamitan	MPDC is indifferent to ISWM, issue on purchase of lot for disposal since it is not income generating, lack fo technical expertise, financial constraints, unsustained interest of Barangay LGUs
	Ipil (ESWMO and MENRO)	Arrangement and delineation of roles and responsibilities not clear in the ordinance
Budget cut affected plan to purchase equipment like compactor	Ipil, Isabela City	Lack of funds, funds realigned
Management body became non-functional	RT Lim (ESWMB)	Engineering and Health Office took charge, lack of technical expertise, financial constraints, unsustained interest of members
Budget of ESWM office and MENRO cut	Ipil, Isabela City	Financial constraints, change of administration, budget realigned, change in LGU leadership
Activities for ISWM did not progress to next higher level	Dumalinao	Change of leadership
Reduction in the number of households participating in waste segregation/management	Pagadian City	Difficult to sustain
Ordinances adopting zero waste management and mandating households to have septic tanks and to improve drainage not sustained	Tukuran	Lack of funds, sanitary inspector not fully informed
Shore cleaning not sustained	Tukuran	
Deterioration in the operation of LGU MRFs	Lamitan	Lack of financial support
Unsustained IEC	Lamitan	Lack of financial support
Erratic waste collection	Lamitan	Dumptrucks not working due to poor maintenance
Dumpsite not properly maintained	Isabela City	
Percent of Total Assessed LGUs	**8 (47%)**	

13.0 LINK BETWEEN ENVIRONMENTAL GOVERNANCE INDEX AND LGU BIOPHYSICAL PERFORMANCE

EcoGov anticipates that improved environmental governance as measured by the various governance indices will lead to concrete and quantifiable results on the ground. For instance, improved forest governance is surmised to help reduce pressure and threats to forests and forestlands, expedite forest regeneration activities, and mobilize resources to make idle forestlands productive. In turn, these may help improve biodiversity and enhance local economy from added incomes and revenues. Improved coastal governance is being anticipated to help address issues and threats associated with overfishing and destructive fishing. Reduction of these threats, in turn, may improve marine biodiversity and local fisheries production and income. Improved management of solid wastes and investment in sanitation facilities are expected to help address threats to human health and environment associated with water and land pollution and toxic emissions. They may also be able to contribute to local economy by providing livelihood and income opportunities for constituents and to generate additional revenues for the LGU.

Tables 52-54 present the names of LGUs with observed 'biophysical improvements' as measured using several proxy indicators found in EcoGov's Performance Monitoring Plan and the indices they obtained in FFM, CRM, and UEM. Because of time and resources constraint, EcoGov is measuring outcomes of improved governance of forest and forestlands, coastal areas and urban wastes using these proxy indicators. The objective of this exercise is to 'evaluate' whether a link between good environmental governance and biophysical improvements can be observed. It appears from the results of this comparison, that LGUs with high level of governance as indicated by high index they obtained were experiencing 'biophysical improvements' as measured by proxy indicators.

13.1 FFM Index and Biophysical Improvements

In the area of forest and forestland management, good governance is expected to reduce the incidence of illegal logging and further conversion of remaining forests in forestlands. EcoGov is using two proxy indicators to monitor these outcomes a) areas of natural forests placed under improved management and, b) areas of bare forestlands placed under productive management.

Natural forests refer to primary (old growth) and naturally regenerating secondary (residual) forests. They are considered under improved management when they meet two criteria (a) they are under a certain form of tenure or government allocation instrument, and b) they have effective on-site management as defined under EcoGov's Performance Monitoring Plan (PMP).

The other proxy indicator measures the size of bare forestlands (e.g., open areas and grasslands) in co-managed or community-tenured forestlands that are placed under productive development. Bare forestlands are considered under productive development when they meet three conditions: 1) the area is covered by a sub-agreement, stewardship

contract, tribal recognition of individual claim within communal tenure; b) there is an investment (e.g., plantation, orchard, agroforestry, etc) in the tenured area by LGU or private entity, and c) individual property rights holder underwent training and is himself/herself investing in agroforestry, fruit tree farming, etc to make the land productive.

Table 52 below shows that with the exception of two LGUs (Dauin and Lamitan City), the LGUs that experienced one or both proxy indicators of outcomes of good forest governance, registered high FFM indices. This Table also shows that adoption of good practices in forest management by 25 LGUs has resulted in total of 153,158 hectares or more than 50% of natural forests in Northern Luzon, Visayas and Mindanao placed under improved management. Seven of these LGUs were able to completely placed all of their natural forests under improved management. Kiamba, which registered an FFM index of 1.00 put its entire 28,100 hectares of natural forests under improved management.

By tenure allocation, bulk of the natural forests placed under improved management were under community tenure: 17 Community-based Forest Management Agreement (CBFMA) sites totalling 34,920 ha in 10 LGUs and Indigenous Peoples tenure. The latter comprised of Certificate of Ancentral Domain Title (CADT) sites in Nagtipunan and Makilala with total area of 72,128 ha. The rest of the tenured areas (46,110 has in 16 LGUs) placed under improved management were under LGU-DENR co-management.

Eleven LGUs practicing good forest governance were also able to place total of 13,057 hectares of bare forestlands under productive management. Of this, 420 has were under CBFMA, 12,613 has were under co-management and 24 has were covered by Certificate of Ancestral Land Title (CALT). Sta. Catalina, with FFM index of 0.93 placed the single largest block of bare forestlands of more than 11,300 hectares under productive development.

Table 52. LGUs with biophysical improvements (as of December 2007) and their FFM Indices

Province/LGU	FFM Index	Size of Natural Forests (Ha)	Natural Forests Areas under Improved Management (% of estimated natural forests) (Ha)	Size of Bare forestlands (Ha)	Forestlands Under Productive Management (% of estimated bare forestlands) (Ha)
N. Luzon (7)					
Dupax del Sur	0.87	15,827	687 (4%)	9,783	42 (0.4%)
Quezon	0.87	11,293	2,655 (24%)	1,927	5 (0.3%)
Diffun	0.93	5,147	2,927 (57%)	11,917	90 (0.8%)
Madela	0.80	44,163	3,782 (9%)	10,461	8 (0.1%)
Cabarroguis	0.93	9,692	2,535 (26%)	9,087	-
Nagtipunan	0.80	103,848	77,150 (74%)	33,669	

Province/LGU	FFM Index	Size of Natural Forests (Ha)	Natural Forests Areas under Improved Management (% of estimated natural forests) (Ha)	Size of Bare forestlands (Ha)	Forestlands Under Productive Management (% of estimated bare forestlands) (Ha)
Aglipay	0.80	5,292	4,239 (80%)	5,499	-
C. Visayas (10)					
Talibon	1.00	568	380 (67%)	2,807	-
San Miguel	1.00	60	24 (40%)	528	-
Toledo City	0.87	432	432 (100%)	3,357	-
Alcoy	0.93	844	844 (100%)	2,618	65 (2.5%)
Dalaguete	1.00	715	715 (100%)	5,873	-
Bayawan City	1.00	453	453 (100%)	17,308	-
Bais	0.80	1,369	965 (70%)	9,783	-
Dauin	**0.67**	2,846	2,846 (100%)	3,327	-
La Libertad	1.00	123	123 (100%)	4,874	-
Sta. Catalina	0.93	4,484	3,676 (82%)	34,451	11,324 (32.9%)
S. & C Mindanao (7)					
Wao	1.00	12,412	902 (7%)	1,495	907 (60.7%)
Lebak	1.00	5,400	642 (12%)	4,000	257 (6.4%)
Kalamansig	0.87	9,927	1,619 (16%)	4,082	55 (1.3%)
Makilala	1.00	5,165	4,093 (79%)	1,515	-
Maitum	1.00	16,805	13,152 (78%)	1,740	80 (4.6%)
Maasim	1.00	7,462	2,437 (33%)	28,776	224 (0.8%)
Kiamba	1.00	28,162	28,162 (100%)	6,139	
W. Mindanao					
Lamitan City	**0.47**	1,198	253 (21%)	534	-
Total		293,687	**153,158 (52%)**	215,550	**13,313 (6.2%)**

13.2 CRM Index and Biophysical Improvements

Three proxy indicators are used by EcoGov to measure outcomes of improved coastal governance **(Table 53)**. The first proxy indicator measures coastal areas under improved management. For a coastal area to be considered as such, four criteria have to be met: 1) LGU has a legitimized coastal and/or fisheries resource management (CRM/FRM) plan, or legitimized zoning scheme for municipal waters; 2) LGUs have approved annual budget allocations for implementation of CRM/FRM activities; 3) there is a functional LGU-based resource management organization in charge of implementing the legitimized plan/s, with strong focus on CRM enforcement, and 4) LGUs implement good practices in CRM and/or fisheries resources management. Good practices in CRM include activities stated in the CRM plan. Good practices in FRM will include both enforcement and management of fishing effort.

The second proxy indicator measures the number and size of new marine sanctuaries (MS) or marine protected areas (MPA) established in an LGU. A new MS or MPA is considered established when the following criteria are satisfied: 1) it is covered by a legitimized management plan which is the basis for the issuance of pertinent municipal ordinance, 2) there is a management body formed for its management, 3) there is funding allocation from the LGU or other sources for its management, and 4) at least two implementation activities are ongoing, one being on law enforcement. Other implementation activities may include: community IEC, installation and maintenance of bouys, patrolling, apprehension of violators, and establishment of user's fee.

The third proxy indicator concerns the number and size of existing marine sanctuaries/marine protected areas placed under improved management. This refers to established marine sanctuaries where implementation activities have been maintained for at least one year and have resulted in reducing fishing effort and destructive fishing in non-take areas.

Table 53 below shows than an overwhelming number of LGUs with very high CRM indices experienced at least one proxy indicators of outcomes of improved coastal resource governance. The four LGUs (Lamitan City, Payao, Naga, Jagna) that were rated medium performers were able to establish new marine sanctuaries but were yet to place them under strengthened management status . As a result of adoption of best practices, more than 93,000 ha of coastal area in 30 LGUs have been placed under improved management. Moreover, good governance of coastal resources has resulted in the establishment of 54 MS/MPAs covering more than 3,300 hectares of coastal areas in 26 LGUs. Of these, 14 sites covering total of 1,932 hectares have been established during EcoGov Phase 1. Good coastal governance has also placed 23 existing MPAs in 17 LGUs covering more than 2,000 hectares under improved management. Except for Ditangol, all of these MPAs achieved strengthened status during EcoGov Phase 2.

Table 53. LGUs with biophysical improvements (as of December 2007) and their CRM indices

Province/LGU	CRM Index	Coastal Areas Under Improved Management (ha)	New Marine Sanctuaries Established (EcoGov Phase 1 and Phase 2)	Existing marine sanctuaries under improved management (ha)
Northern Luzon (3)				
Dinalungan	1.00	11,769.4	Ditangol (19) Mabudo (37)	Ditangol (19) Mabudo (37)
Dipaculao	1.00	19,661.1	Dibutunan (57.7)	Dibutunan (58)
Baler	0.89		Puntian- Digisit (242.6)	
Central Visayas (13)				
Carmen	1.00	-	Pandong Bato (28) Batong Diyut (45)	Pandong Bato (28) Batong Diyut (45)
Alcoy	1.00	-	-	Daang Lungsod- Guiwang (22.71)
Dalaguete	1.00	-	-	Casay (5.0) Balud (12)
Danao City	1.00	4,232.2	Danao MS (39.7)	
Lazi	1.00	-	-	Lazi
Siquijor	1.00	-	-	Siquijor
Pilar	1.00	-	Pilar (179)	Pilar (179)
Tudela	1.00	-	Villahermosa (69) Puertobello (39)	Villahermosa (69)
San Francisco	1.00	23,367.7	Consuelo (33) San Isidro (46.45) Santiago (18.59)	-
Poro	0.88	-	Esperanza (42) Libertad (33) Inosukan	Esperanza (42) Libertad (33)
Balamban	0.88	-	Balang-balang	-
Jagna	0.71	-	Canuba (7.4) Ipil (6.8) Cantagay (6.8) Bunga Mar (3.0) Pangdan (15.2) Nausok (4.6) Larapan (8.6) Tubod Mar (11.9) Naatang (5.0)	
South and Central Mindanao (1)				
Davao City	0.88	-	Punta Dumalag (37) Agdao Centro Bunawan Lasang	-
Western Mindanao (13)				
Isabela City	0.82	-	Lampinigan (88.4) Lukpan	Lampinigan (88.4)
Dimataling	0.94		Dimataling (50) Bacayawan (20)	
Dumalinao	0.88	-	Bibilik (20)	Bibilik (20)
Naga	**0.65**	-	Tandu Balasan (124)	Tandu Balasan (62.5)
RT Lim	0.88	-	RT Lim (112)	RT Lim (50)
Tabina	1.00	14,367.8	Concepcion (28) Tambunan (95)	Concepcion (28) Tambunan (95)
Tukuran	1.00	1,845.6	MISTTA (160)	MISSTA (160)

Province/LGU	CRM Index	Coastal Areas Under Improved Management (ha)	New Marine Sanctuaries Established (EcoGov Phase 1 and Phase 2)	Existing marine sanctuaries under improved management (ha)
			PALS (70)	PALS (70)
Tungawan	0.94	17,775.6	Bangaan (880) Pulo Pina	Bangaan (880)
Lamitan City	0.59	-	Maloong Canal Shoal (100ha)	
Payao	0.53	-	Takot Patumbok (224)	
Labangan	0.94	-	Combo (20) Bulanit	
Pagadian City	0.94	-	Daodao (64) Putting Balas Lalas Pagadian City	
San Pablo	0.94	-	Culasian-Tenatan (25) Tibu-Tabu (163) Samvill (26) Ridi	
Total		**93,019.40**	**54 MPAs (>3,305 ha)**	**23 MPAs (> 2,004 ha)**

13.3 UEM Index and Biophysical Improvements

EcoGov measures outcome of improved management of municipal waste in terms of LGU's diversion of at least 25% of solid waste from disposal through recycling, composting, processing and other resource recovery techniques. Six evidences have been considered as proof that an LGU is actually achieving waste diversion target: 1) presence of an operational composting facility, 2) waste diversion of at least 25% in specific major waste generators such as public market, population center, commercial district, 3) presence of ISWM plan and annual budgets to implement waste segregation, IEC, enforcement, composting and recycling, 4) SWM ordinances that are being enforced, 5) ongoing IEC program particularly on segregation, composting and recycling, and 6) strengthened and organized recycling sector (e.g., junkshop operators, itinerant buyers of recyclables). An LGU has to achieve some of the above criteria to be considered meeting the at least 25% waste diversion target.

Based on **Table 54** below, 41 LGUs were able to meet the proxy indicator of outcome of improved management of municipal wastes based on diversion of at least 25% of their generated wastes from disposal.

Another proxy indicator of biophysical manifestation of improved UEM considered by EcoGov is investment by an LGU in sanitation facilities. This indicator indirectly provides information on the reduction of threats to human health and to the environment particularly water resources, as a result of contaminated food and water and unsanitary conditions. As of 2007, only three LGUs can be considered as have invested in a wastewater sanitation facility. These are Tacurong City, General Santos City, and

Kidapawan City. There are seven other LGUs that are in various stages of finalizing technical assistance agreements and contracts, preparing the design, project development, and negotiating for funding to be able to establish and operate a wastewater sanitation facility. These LGUs are: Tanjay City, Danao City, Bais City, Bayawan City, Alabel, Dauis, and Polomolok. Lack of financial and technical capacity and the complex requirements of establishment, operation and maintenance of a sanitary facility hinder much wider adoption of this technology.

Another proxy indicator of biophysical improvement (closure of open dumpsite and establishment of a proper waste disposal facility) is added in **Table 54** although this is not officially part of EcoGov's PMP. Based on the data collected by EcoGov, a total of 34 LGUs experienced this proxy indicator, two (Tacurong City and Bais City) of them already operating a suitable sanitary landfill.

It can be observed that majority of the LGUs with biophysical improvements registered indices that belonged to well-performing category, only 4 were median performers.

Table 54. LGUs with biophysical improvements (as of December 2007) and their UEM indices

Province/LGU	UEM Index	Diverting at least 25% of waste from disposal	Closed Open Dumpsite	Investing in Sanitation Facility
Northern Luzon (13)				
Bagabag	0.94	√	√	-
Bambang	0.94	√	√	-
Bayombong	1.00	√	√	-
Dupax del Norte	0.81	√	√	-
Quezon	0.56	√	-	-
Solano	0.88	√	√	-
Aritao	0.75	√	√	-
Maria Aurora	0.81	√	√	-
Baler	0.81	√	√	-
Cabarroguis	0.88	√	√	-
Diffun	0.94	√	√	-
Madela	0.94	√	√	-
Cauayan City	1.00	√	√	-
Central Visayas (17)				
Corella	0.81	√	-	-
Cortes	1.00	√	-	-
Dauis	0.81	√	-	-
Duero	0.81	√	√	-
Jagna	1.00	√	-	-
Maribojoc	1.00	√	√	-
Talibon	0.94	√	√	-
Tanjay City	0.50	-	-	√
Dauis	0.81	-	-	√
Compostela	1.00	√	√	
Danao City	1.00	√	√	√
Amlan	0.81	√	-	-
Bais City	0.88	-	Existing SLF	√
Bayawan City	1.00	√	√	√
Dauin	0.81	√	√	-
San Jose	0.88	√	√	-

Province/LGU	UEM Index	Diverting at least 25% of waste from disposal	Closed Open Dumpsite	Investing in Sanitation Facility
San Francisco	0.75	-	√	-
South and Central Mindanao (13)				
Wao	0.88	√	√ (SLF completed)	
Koronadal	0.94	√	√	-
Polomolok	0.94	√	√	-
Surallah	0.75	√	√	-
Tupi	0.88	√	√	-
Isulan	0.88	√	-	-
Lebak	0.75	√	√	-
Tacurong City	0.81	√	SLF completed	√
Bagumbayan	0.44	√	-	-
Alabel	0.56	-	-	-
Kidapawan City	0.88	√	-	√
General Santos City	1.00	-	-	√
Davao City	0.94	-	√	-
Western Mindanao (4)				
Isabela City	0.94	√	√	-
Pagadian City	0.56	√	-	-
Buug	0.75	√	√	-
Ipil	0.88	√	√	-
Grand Total		41 LGUs	34 LGUs	10 LGUs

14.0 REPORT WRAP UP

14.1 Basic Patterns in Local Environmental Governance Practices: 2005-2007

The results of the midterm assessment reveal significantly improved environmental governance in all regions and all sectors. Key trends observed are:

- From none during the baseline assessment, two LGUs- Bayawan and Cauayan City achieved perfect index of 1.00.

- Mean over-all index for all 91 LGUs covered by the mid-term assessment is 0.75, over-all indices ranged from 0.32-1.00. Baseline mean over-all index covering 82 LGUs is 0.63, with range of over-all indices of 0.28-0.96.

- There is an upward trend in the values of over-all indices of 'old LGUs' (0.76 from baseline of 0.63) or those covered by the baseline assessment in 2005-2006, that seems parallel to the duration and level of EcoGov technical assistance. This trend is clearly attributable to EcoGov-LGU technical cooperation and partnership.

- LGUs improved their index categories as a result of adoption of more best practices; within each of the four LGU categories, mean over-all index increased.

- Many well-performing LGUs were not only able to sustain baseline 'best practices' but they were also able to adopt 'higher level' practices.

- The sectors that are not assisted by EcoGov or any other organization generally continued to pull down over-all environmental governance indices of LGUs, a situation that needs urgent rectification by both LGU and EcoGov.

- Improved environmental governance resulted in both perceived and actual improvements on the ground.

    - Adoption of good practices in forest management has resulted in 153,158 hectares or more than 50% of total hectarage of natural forests in 24 LGUs placed under improved management. A total of 13,057 hectares of bare forestlands have been placed under productive management.
    - More than 93,000 ha of coasts in 30 LGUs have been placed under improved management. A total of 54 new marine sanctuaries/marine protected areas covering more than 3,300 hectares of coastal areas have been established in 26 LGUs. Management of 23 existing MPAs in 17 LGUs covering more than 2,000 hectares has been strengthened.
    - 41 LGUs were able to divert at least 25% of their generated wastes from disposal, ten LGUs invested in wastewater treatment facility, and 34 LGUs were able to close their open dumps.
      Trend in LGU Categories

- Improved sectoral and over-all indices resulted in more LGUs achieving the well-performing (53 LGUs or 58% of total LGUs that self-assessed) and median (18 LGUs or 20%) categories (**Tables 55-60**).

- Common characteristics of well-performing LGUs are the practice of sustaining budget allocation for the sector, presence of a resource management plan (although there are LGUs that implemented activities in the absence of a plan), presence of functional and accountable resource management office/staff/body, and outside technical assistance and collaborations.

- Majority of the LGUs that moved up to Category 1 were previously median performing LGUs (19) and overspecializing LGUs (11). Only three (Madella, Dupax del Sur and Nagtipunan) baseline Category 3 or low performing LGUs were able to enter Category 1 status by the midterm assessment.

- The LGUs that need most attention are the two Category 3 or low-performing LGUs in Western Mindanao (Naga and Payao) which both have cross-sector index of 0.32. Naga's over-all index declined from baseline level of 0.47 as a result of deteriorated performance in all three environment sectors. Payao declined in both CRM and LIM.

- With 18 or 20% of total, overspecializing LGUs comprised a smaller proportion now of the total number that underwent the assessment. During the baseline assessment, overspecializing LGUs comprised a third of total LGUs. These LGUs are also of special concern because they generally performed very poorly in the neglected sectors.

- Results suggest that LGUs tend to overspecialize in a sector where there is either a compelling issue (e.g., amount of unmanaged urban waste, scale or size of resource, biodiversity threat, political value of intervention) or opportunity (donor assistance) that pushes them to prioritize this sector. LGUs tend to underperform in sectors that ranked low in their order of priorities and where they receive no external assistance.

Table 55. Change in the Composition of LGU Categories

Index Category	Number , Percentage and Mean Indices of LGUs That Belong to the Category									
	N. Luzon		C. Visayas		S.C. Mindanao		W. Mindanao		Total (% of LGUs that Underwent GSA)	
	Baseline (19 LGUs)	Midterm (19 LGUs)	Baseline (29 LGUs)*	Midterm (34 LGUs)	S.C. Mindanao (17 LGUs)	Midterm (21 LGUs)	Baseline (17 LGUs)	Midterm (17)	Baseline (82 LGUs)	Midterm (91 LGUs)
1-Well Performing	2 (10%) 0.80	11 (58%) 0.83	8 (28%) 0.83	21 (62%) 0.85	6 (35%) 0.85	15 (71%) 0.86	3 (18%) 0.85	6 (35%) 0.83	**19**(23%) 0.84	**53** (58%) 0.85
2- Median	8 (42%) 0.54	3 (16%) 0.67	10 (34%) 0.62	6 (18%) 0.70	7 (41%) 0.63	5 (24%) 0.63	3 (18%) 0.62	4 (24%) 0.62	**28** (34%) 0.60	**18** (20%) 0.66
3- With Generally Low Indices	6 (32%) 0.34	0 (0%)	0	0 (0%)	0 (0%)	0 (0%)	2 (12%) 0.34	2 (12%) 0.32	**8** (10%) 0.34	**2** (2%) 0.32
4- Overspecializing	3 (16%) 0.60	5 (26%) 0.66	11 (38%) 0.60	7 (21%) 0.61	4 (24%) 0.63	1 (5%) 0.55	9 (53%) 0.54	5 (29%) 0.56	**27** (33%) 0.59	**18** (20%) 0.61
Average Cross-Sector Index	**0.51**	**0.76**	**0.67**	**0.78**	**0.71**	**0.79**	**0.59**	**0.64**	**0.63**	**0.75**

Table 56. List of Category 1 LGUs, 2007 GSA

LGU	FFM Index	CRM Index	UEM Index	LIM Index	Over-All Index
1.Bayawan	1.00	1.00	1.00	1.00	1.00
2. Cauayan City	NA	NA	1.00	1.00	1.00
3. Talibon	1.00	1.00	0.94	1.00	0.98
4. Zamboanga City	0.93	1.00	1.00	1.00	0.98
5. Maribojoc	0.87	1.00	1.00	1.00	0.96
6. General Santos City	1.00	0.94	1.00	0.89	0.96
7.Danao City	0.87	1.00	1.00	0.78	0.93
8.Dalaguete	1.00	1.00	0.81	1.00	0.95
9.Davao City	0.93	0.88	0.94	1.00	0.93
10.Maitum	1.00	0.88	0.88	0.89	0.91
11.Polomolok	0.93	NA	0.94	0.78	0.90
12. Tabina	0.80	1.00	0.81	1.00	0.89
13.Alcoy	0.93	1.00	0.63	1.00	0.88
14.Lebak	1.00	0.94	0.75	0.78	0.88
15.Tampakan	0.80	NA	1.00	0.78	0.88
16.Maasim	1.00	0.94	0.69	0.89	0.88
17.Kiamba	1.00	0.94	0.88	0.56	0.88
18.Diffun	0.93	NA	0.94	0.78	0.88
19.Toledo City	0.87	1.00	0.75	0.89	0.88
20.San Jose	0.67	0.94	0.88	1.00	0.86
21.Dinalungan	0.93	1.00	0.75	0.67	0.86
22.Koronadal City	0.73	NA	0.94	0.89	0.85
23.Cabarroguis	0.93	NA	0.88	0.78	0.88
24.Maddela	0.80	NA	0.94	0.89	0.88
25.Wao	1.00	NA	0.88	0.67	0.88
26.Jagna	0.80	0.71	1.00	0.89	0.84
27.Kalamansig	0.87	0.94	0.75	0.78	0.84
28.La Libertad	1.00	1.00	0.56	0.78	0.84
29.Bais	0.80	0.94	0.88	0.67	0.84
30.Dauin	0.67	1.00	0.81	0.89	0.84
31. Sta. Catalina	0.93	0.94	0.50	1.00	0.82
32.Tupi	0.80	NA	0.88	0.89	0.85
33.Amlan	0.73	0.94	0.81	0.78	0.82
34.Balamban	0.67	0.88	0.94	0.67	0.81
35.Cortes	0.80	0.71	1.00	0.67	0.81
36. Pagadian City	0.80	0.94	0.56	1.00	0.81
37.Nagtipunan	0.80	NA	0.81	0.78	0.80
38.Kidapawan City	0.87	NA	0.88	0.56	0.80
39.San Miguel	1.00	NA	0.63	0.89	0.82
40.Tungawan	0.86	0.94	0.56	0.78	0.79
41.Siquijor	0.67	1.00	0.75	0.67	0.79
42.Aritao	0.73	NA	0.75	0.89	0.78

LGU	FFM Index	CRM Index	UEM Index	LIM Index	Over-All Index
43.Duero	0.60	0.94	0.81	0.67	0.77
44.Alabel	0.80	1.00	0.56	0.67	0.77
45.Dauis	NA	0.82	0.81	0.56	0.76
46. Tacurong City	Not assessed	NA	0.81	0.67	0.76
47.Baler	0.60	0.82	0.81	0.78	0.75
48. San Francisco	0.53	1.00	0.75	0.67	0.75
49.Bambang	0.40	NA	0.94	1.00	0.75
50.Dupax Sur	0.87	NA	0.81	0.44	0.75
51. Dupax del Norte	0.53	NA	0.81	1.00	0.75
52. Dumalinao	0.73	0.88	0.50	1.00	0.75
53. Isabela City	0.60	0.82	0.94	0.56	0.75

Table 57. List of Category 2 LGUs, 2007 GSA (18 LGUs)

LGU	FFM Index	CRM Index	UEM Index	LIM Index	Over-All Index
1.Tanjay	0.73	1.00	0.50	0.67	0.74
2. Dinas	0.47	0.94	0.69	0.89	0.74
3.Moalboal	0.53	0.88	0.81	0.67	0.74
4.Makilala	1.00	NA	0.44	0.67	0.70
5.Lazi	0.40	1.00	0.75	0.67	0.72
6. Sen. Ninoy Aquino	0.80	NA	0.44	1.00	0.70
7. Maria Aurora	0.53	NA	0.81	0.78	0.70
8.Panglao	NA	0.71	0.69	0.67	0.69
9.Tboli	0.67	NA	0.63	0.78	0.68
10.Pamplona	0.67	NA	0.75	0.56	0.68
11.Quezon	0.87	NA	0.56	0.56	0.67
12.Aglipay	0.8	NA	0.50	0.67	0.65
13.Tukuran	0.47	1.00	0.50	0.67	0.67
14.Labangan	0.60	0.94	0.25	0.67	0.61
15.Bindoy	0.67	0.76	0.44	0.56	0.61
16.Bagumbayan	0.47	NA	0.44	0.89	0.55
17. Surallah	0.27	NA	0.75	0.56	0.53
18.Lamitan	0.40	0.59	0.44	0.33	0.46

Table 58. List of Category 3 LGUs, 2007 GSA (2 LGUs)

LGU	FFM Index	CRM Index	UEM Index	LIM Index	Over-All Index
1. Payao	0.3	0.53	0.06	0.56	0.32
2. Naga	0.07	0.65	0.06	0.56	0.32

Table 59. List of Category 4 LGUs, 2007 GSA (18 LGUs)

LGU	FFM Index	CRM Index	UEM Index	LIM Index	Over-All Index
1.Bayombong	0.27	NA	1.00	1.00	0.73
2.Compostela	0.20	0.88	1.00	0.89	0.74
3.San Luis	0.33	0.94	0.63	1.00	0.70
4.Tudela	0.27	1.00	0.56	0.78	0.65
5.Solano	0.27	NA	0.88	0.89	0.65
6.Carmen	0.47	1.00	0.19	0.89	0.61
7.RT Lim	0.60	0.88	0.25	0.67	0.60
8.Dimataling	0.20	0.63	0.38	1.00	0.60
9.Poro	0.53	0.88	0.25	0.78	0.60
10.Bagabag	0.07	NA	0.94	0.89	0.60
11.Dipaculao	0.07	1.00	0.63	0.67	0.60
12.Pilar	0.27	1.00	0.38	0.67	0.58
13.Corella	0.33	NA	0.81	0.56	0.58
14. Buug	0.06	0.82	0.75	0.67	0.58
15.Isulan	0.13	NA	0.88	0.67	0.55
16.Ayungon	0.53	0.65	0.27	0.78	0.53
17. San Pablo	0.33	0.94	0.13	0.78	0.53
18. Ipil	0.20	0.23	0.88	0.88	0.51

Note:
Category 1 : Well-Performing (cross-sector index >0.76)
Category 2 : Median Category (LGUs with cross-sector index in between Categories 1 and 3, but not "overspecializing")
Category 3 : With Generally Low Indices (cross-sector index = 0.38 or lower)
Category 4 : Overspecializing in One Sector (index in one sector >0.76, while that in another sector is 0.38 or lower) but cross index is < 0.76

Trend in Sector Indices

- CRM continued to be the best performing sector with mean index of 0.90 for all LGUs, followed by LIM (0.79), UEM (0.72) and FFM (0.66). While FFM continued to be the least performing sector, it grew at the fastest rate of 26%, followed by UEM (22%), CRM (15%) and LIM (14%).

- While LGUs tend to perform best (i.e., specialize) in EcoGov assisted sectors, there were a number of LGUs that performed strongly in certain sectors on their own, without outside assistance. To illustrate, Buug registered high CRM index of 0.82 although unassisted in this sector by EcoGov or any other organizations. Well performing LGUs tend to register relatively high indices on non-EcoGov assisted sectors also.

- There were EcoGov assisted LGUs like Payao and Lamitan City that underperformed in the assisted sectors and seemed to have difficulty responding quickly to technical assistance.

- FFM tend to be the most neglected sector among overspecializing LGUs, with midterm mean index further down to 0.25 from baseline of 0.29. This sector will continue to be the most challenged until LGUs will have developed technical and institutional capability, weaned off overdependence on DENR, and are able to resist negative influences in the use and management of forest and forestland resources.

- LGUs tend to overspecialize in CRM as shown by midterm mean CRM index among overspecializing LGUs of 0.92 from 0.66 during the baseline survey.

- There tend to be a steady increase in UEM indices in all provinces and regions. Still, the LGUs that posted very low indices in this sector (Naga-0.06, Payao-0.06, San Pablo-0.13, Carmen-0.19, RT Lim-0.25, Poro-0.25, Labangan-0.25, Ayungon- 0.27, Dimataling- 0.38, and Pilar-0.38) need more attention.

- Individual LIM indices did not vary widely as compared to UEM, CRM, and FFM. In addition, the mean index increased, indicating a slow but sure climb in this sector. Unlike the other sectors, LGU progress in LIM tends to be more internally driven and most detached from EcoGov control.

Trend by Region

- South and Central Mindanao (mean over-all index of 0.79), Central Visayas (0.78), and Northern Luzon LGUs (0.76) registered higher levels of environmental governance as compared to Western Mindanao (0.64) LGUs.

- The fastest rate of increase in the number of well performing LGUs occurred in Northern Luzon (from 2 to 11 LGUs) followed by Central Visayas (8 to 21) and South and Central Mindanao (from 6 to 14). The most number of Category 1 LGUs is found in Central Visayas with 21 LGUs. However, the highest proportion of well performing LGUs is found in South and Central Mindanao at 71% of the total number of assessed LGUs.

- Western Mindanao drastically reduced the number of its overspecializing LGUs and doubled the number of median performing LGUs. However, it remains the

most challenged region with the smallest gain in terms of mean over-all environmental governance index and the least number of well-performing LGUs. It is also the region where the highest percentage of LGUs experienced a decline in over-all and sectoral indices. Moreover, the wider range of indices (0.32-0.98) in this region as compared to those in South and Central Mindanao (0.53-0.96) and in Central Visayas and Northern Luzon (both 0.60-1.00) depicts greater variation in the status of environmental governance among LGUs covered by the assessment.

Deteriorations

- There were LGUs which indices and adopted 'best practices' deteriorated by the midterm assessment. Deterioration connotes failure to sustain best practices. It has important implications on achievement of final LGU governance benchmark.

- In Northern Luzon, not one LGU exhibited a retrogression in over-all midterm indices. All LGUs improved their CRM and UEM indices, except for two LGUs that merely sustained their level of baseline performance. The FFM index of Dipaculao declined considerably from 0.40 to 0.07 while those of Bagabag and Baler slightly weakened.

- Five LGUs (Pilar, Dalaguete, Carmen, Dauin, Tanjay) in Central Visayas suffered a slight decline in their midterm over-all indices. Sixteen LGUs experienced minor to significant decline from their previous sector performance. Nine LGUs (Pilar, Alcoy, San Francisco, Carmen, Panglao, San Jose, Dalaguete, Sta. Catalina, and Pamplona) deteriorated in UEM, one in CRM (San Jose), and six in FFM (Compostela, Carmen, Corella, Dauin, Bais City, and Tanjay City.

- In South and Central Mindanao, only two LGUs (Surallah and Tboli) registered minor weakening of their midterm over-all indices. Kidapawan City, Maitum and Tupi experienced slight reduction in FFM, CRM, and UEM indices respectively. The reduction in Tboli's FFM and UEM indices seems more drastic, however.

- Only two LGUs (Dimataling and Naga) experienced deterioration in over-all indices in Western Mindanao, but many LGUs encountered a decline in sectoral performance. Around 60% of the LGUs weakened in UEM, one-third in CRM and one-fourth in FFM. Majority of these LGUs were already poorly performing in the concerned sectors in the baseline assessment.

- Deteriorations in LGU sector performance have been attributed by GSA participants to various financial, technical, and political reasons. Several LGUs traced the reason to the diminished or lost functionality of environment management offices (MENRO) and bodies (e.g., MFARMC, TWG, ESWMB). Multisectoral environmental bodies became non- or weakly functional because of one or combination of the following reasons: failure LGU to sustain their budgets, overdependence of the body on LGU decision to convene/activate them, change

in political leadership because of the May 2007 elections (and hence, need for management body to be reconstituted), lack of technical expertise, and lack of incentives which made the members of these bodies lost their interest in their functions.

14.2 Major Implications on Final/2009 Benchmark

Assessment of Midterm Status

While the midterm assessment showed significantly improved indices, the climb to the ideal index of 1.00 seems not very easy. Adoption of all 'best practices' in all sectors in order to achieve 1.00 seems to require a longer time and process, particularly for LGUs with very low baseline index and institutional capacity. To illustrate, while there were already 19 Category 1 LGUs (over-all index of 0.77 and above) during the baseline assessment in 2005, only 2 LGUs reached the ideal index of 1.00 two years after in 2007. Zamboanga City and Dalaguete City, the highest performers in 2005 with indices of 0.96 and 0.93, respectively, were only able to add one more 'best practice' and failed to reach 1.00.

Considering that 1.00 would be difficult to achieve by 2009, it seems reasonable to set Category 1 as the final benchmark of "80 governance institutions achieving good environmental governance" as mentioned in the opening part of this report.

In addition to the present 53 Category 1 LGUs, the 18 median performing or Category 2 LGUs would be the best bet to achieve Category 1 status by 2009. Together, the number of these LGUs add up to 71 potential candidates for Category 1 status by 2009. If half of the present 18 over-specializing LGUs will be able to improve on the neglected sectors (usually FFM and UEM), EcoGov will be able to meet the 80 LGUs target by the final assessment. **Table 61** lists the names of 84 LGUs that seem most likely candidates for Category 1 status by 2009 on account of their existing indices. The indices in the underperforming sectors are highlighted to indicate that these sectors need closer focus from both the LGU and EcoGov.

To better predict the number of LGUs that will belong to Category 1 by the final assessment in 2009, there is a need to look at the individual indices and the gaps (i.e., best practices not yet adopted), in the light of certain information like status of assistance being received in the various sectors and LGU commitment to implement necessary changes. It would be difficult for unassisted sectors in an LGU to catch up. In addition, if the LGU has no resource management plan, the hurdle to get to 1.00 by 2009 would be greater as compared to when there is already a plan. Nevertheless, as revealed by the GSA results, LGUs can implement major activities designed to address environmental threats in their localities despite the absence of a resource management plan.

Table 60. List of LGUs that will likely achieve Category 1 status by the final assessment in 2009 and their baseline and mid-term indices

	FFM		CRM		UEM		Internal Management		Over-All	
LGU	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**
1.Bayawan	0.87	1.00	1.00	1.00	0.94	1.00	0.67	1.00	0.89	1.00
2. Cauayan City	NA	NA	NA	NA	0.81	1.00	0.78	1.00	0.80	1.00
3. Talibon	1.00	1.00	0.88	1.00	0.31	0.94	0.56	1.00	0.70	0.98
4. Zamboanga C.	0.93	0.93	1.00	1.00	0.94	1.00	1.00	1.00	0.96	0.98
5. Maribojoc	0.80	0.87	1.00	1.00	0.69	1.00	0.78	1.00	0.82	0.96
6. G. Santos City	0.93	1.00	0.94	0.94	1.00	1.00	1.00	0.89	0.96	0.96
7.Danao City	0.13	0.87	0.88	1.00	0.75	1.00	0.89	0.78	0.65	0.93
8.Dalaguete	1.00	1.00	1.00	1.00	0.88	0.81	0.78	1.00	0.96	0.95
9.Davao City	0.93	0.93	0.71	0.88	0.81	0.94	1.00	1.00	0.86	0.93
10.Maitum	0.73	1.00	0.94	0.88	0.69	0.88	0.89	0.89	0.81	0.91
11.Polomolok	0.73	0.93	NA	NA	0.94	0.94	0.89	0.78	0.85	0.90
12. Tabina	0.47	0.80	1.00	1.00	0.88	0.81	0.89	1.00	0.81	0.89
13.Alcoy	0.93	0.93	0.88	1.00	0.69	0.63	0.44	1.00	0.77	0.88
14.Lebak	0.87	1.00	0.82	0.94	0.50	0.75	0.78	0.78	0.74	0.88
15.Tampakan	-	0.80	NA	NA	-	1.00	-	0.78	-	0.88
16.Maasim	0.80	1.00	0.76	0.94	0.38	0.69	0.78	0.89	0.67	0.88
17.Kiamba	0.67	1.00	0.88	0.94	0.81	0.88	0.89	0.56	0.81	0.88
18.Diffun	0.47	0.93	NA	NA	0.75	0.94	0.56	0.78	0.60	0.88
19.Toledo City	0.47	0.87	1.00	1.00	0.69	0.75	0.78	0.89	0.74	0.88
20.San Jose	0.33	0.67	1.00	0.94	0.94	0.88	0.89	1.00	0.79	0.86
21.Dinalungan	0.71	0.93	1.00	1.00	0.75	0.75	0.56	0.67	0.79	0.86
22.Koronadal C.	0.53	0.73	NA	NA	0.75	0.94	1.00	0.89	0.78	0.85
23.Cabarroguis	0.60	0.93	NA	NA	0.44	0.88	0.44	0.78	0.50	0.88
24.Maddela	0.07	0.80	NA	NA	0.25	0.94	0.67	0.89	0.28	0.88
25.Wao	0.93	1.00	NA	NA	0.25	0.88	0.67	0.67	0.60	0.88
26.Jagna	0.67	0.80	0.71	0.71	1.00	1.00	0.89	0.89	0.81	0.84
27.Kalamansig	0.80	0.87	0.88	0.94	0.19	0.75	0.67	0.78	0.63	0.84
28.La Libertad	1.00	1.00	0.76	1.00	0.25	0.56	0.67	0.78	0.67	0.84
29.Bais	0.93	0.80	0.29	0.94	0.69	0.88	0.67	0.67	0.63	0.84
30.Dauin	1.00	0.67	1.00	1.00	0.81	0.81	0.67	0.89	0.89	0.84
31. Sta. Catalina	0.47	0.93	0.88	0.94	0.63	0.50	0.67	1.00	0.67	0.82
32.Tupi	0.47	0.80	NA	NA	0.94	0.88	0.89	0.89	0.75	0.85
33.Amlan	0.33	0.73	0.88	0.94	0.63	0.81	0.78	0.78	0.65	0.82
34.Balamban	0.47	0.67	0.71	0.88	0.75	0.94	0.44	0.67	0.61	0.81
35.Cortes	0.53	0.80	0.47	0.71	0.69	1.00	0.44	0.67	0.54	0.81
36. Pagadian C.	0.67	0.80	0.82	0.94	0.63	0.56	0.89	1.00	0.74	0.81
37.Nagtipunan	0.33	0.80	NA	NA	0.38	0.81	0.22	0.78	0.33	0.80
38.Kidapawan C.	0.93	0.87	NA	NA	0.56	0.88	0.67	0.56	0.73	0.80
39.San Miguel	0.87	1.00	NA	NA	0.31	0.63	0.67	0.89	0.60	0.82
40.Tungawan	0.67	0.86	0.94	0.94	0.38	0.56	1.00	0.78	0.74	0.79
41.Siquijor	-	0.67	-	1.00	-	0.75	-	0.67	-	0.79

	FFM		CRM		UEM		Internal Management		Over-All	
LGU	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**	BL	**MT**
42.Bindoy	-	0.67	-	1.00	-	0.75	-	0.67	-	0.79
43.Aritao	0.33	0.73	NA	NA	0.50	0.75	0.67	0.89	0.48	0.78
44.Duero	0.47	0.60	0.88	0.94	0.50	0.81	0.56	0.67	0.61	0.77
45.Alabel	-	0.80	-	1.00	-	0.56	-	0.67	-	0.77
46. Dauis	NA	NA	0.53	0.82	0.5	0.81	0.56	0.56	0.52	0.76
47. Tacurong C.	0.07	-	NA	NA	0.75	0.81	0.67	0.67	0.48	0.76
48.Baler	0.67	0.60	0.82	0.82	0.50	0.81	0.67	0.78	0.67	0.75
49. S. Francisco	0.53	0.53	0.88	1.00	0.88	0.75	0.78	0.67	0.77	0.75
50.Bambang	0.20	0.40	NA	NA	0.88	0.94	0.78	1.00	0.60	0.75
51.Dupax Sur	0.20	0.87	NA	NA	0.25	0.81	0.67	0.44	0.33	0.75
52. Dupax N.	0.47	0.53	NA	NA	0.56	0.81	0.78	1.00	0.58	0.75
53. Dumalinao	0.60	0.73	0.71	0.88	0.55	0.50	0.89	1.00	0.67	0.75
54. Isabela City	0.53	0.60	0.24	0.82	0.81	0.94	0.67	0.56	0.54	0.75
55.Tanjay	1.00	0.73	1.00	1.00	0.44	0.50	0.56	0.67	0.77	0.74
56. Dinas	0.13	0.47	1.00	0.94	0.19	0.69	0.89	0.89	0.53	0.74
57. Moalboal	-	0.53	-	0.88	-	0.81	-	0.67	-	0.74
58. Makilala	0.93	1.00	NA	NA	0.38	0.44	0.56	0.67	0.63	0.70
59.Lazi	-	0.40	-	1.00	-	0.75	-	0.67	-	0.72
60. S. N. Aquino	-	0.80	NA	NA	-	0.44	-	1.00	-	0.70
61. Maria Aurora	0.47	0.53	NA	NA	0.63	0.81	0.56	0.78	0.55	0.70
62.Panglao	NA	NA	0.59	0.71	0.75	0.69	0.22	0.67	0.57	0.69
63.Tboli	0.80	0.67	NA	NA	0.81	0.63	0.67	0.78	0.78	0.68
64.Pamplona	0.07	0.67	NA	NA	0.88	0.75	0.44	0.56	0.48	0.68
65.Quezon	0.27	0.87	NA	NA	0.31	0.56	0.44	0.56	0.33	0.67
66.Aglipay	0.60	0.8	NA	NA	0.25	0.50	0.22	0.67	0.38	0.65
67.Tukuran	0.20	0.47	0.88	1.00	0.56	0.50	0.56	0.67	0.56	0.67
68.Labangan	1.00	0.60	0.82	0.94	0.50	0.25	0.89	0.67	0.78	0.61
69.Bayombong	0.13	0.27	NA	NA	0.88	1.00	0.78	1.00	0.58	0.73
70.Compostela	0.60	0.20	0.65	0.88	0.94	1.00	0.67	0.89	0.72	0.74
71.San Luis	0.33	0.33	0.82	0.94	0.50	0.63	0.89	1.00	0.61	0.70
72.Tudela	0.20	0.27	0.82	1.00	0.13	0.56	0.56	0.78	0.42	0.65
73.Solano	0.27	0.27	NA	NA	0.69	0.88	0.67	0.89	0.53	0.65
74.Carmen	0.67	0.47	0.94	1.00	0.25	0.19	0.89	0.89	0.68	0.61
75.RT Lim	0.27	0.60	0.94	0.88	0.25	0.25	0.67	0.67	0.53	0.60
76.Dimataling	0.27	0.20	0.94	0.63	0.63	0.38	0.78	1.00	0.65	0.60
77.Poro	0.20	0.53	0.88	0.88	0.25	0.25	0.89	0.78	0.53	0.60
78.Dipaculao	0.40	0.07	0.65	1.00	0.44	0.63	0.67	0.67	0.53	0.60
79.Pilar	-	0.27	0.82	1.00	0.38	0.38	0.56	0.67	0.60	0.58
80.Corella	0.40	0.33	NA	NA	0.56	0.81	0.67	0.56	0.53	0.58
81.Bagumbayan	-	0.47	NA	NA	-	0.44	-	0.89	-	0.55
82. Surallah	0.27	0.27	NA	NA	0.75	0.75	0.67	0.56	0.55	0.53
83.Ayungon	-	0.53	-	0.65	-	0.27	-	0.78	-	0.53
84. San Pablo	0.13	0.33	0.71	0.94	0.25	0.13	0.88	0.78	0.46	0.53

Recommendations for Meeting Final Benchmark

To better ensure that the target of 80 LGUs belonging to Category 1 by the final assessment is achieved, the following are recommended:

a) **Identify LGUs with highest potential of achieving final benchmark**, assess the weak areas (i.e., best practices indicators not adopted), engage/coach them more closely, fast track assistance, and **help them mobilize internal and external resources** (including upscaling strategy for presently unassisted sector) to strengthen their performance.

b) RCs should conduct **feedbacking sessions**, prioritizing **'target LGUs'** or those with high potential of achieving Category 1 status but would have difficulty meeting the target without close coaching and guidance from EcoGov and other project partners. The feedbacking session will remind LGUs of gaps in their existing performance. Each feedbacking session should be accompanied by a brainstorming session or an action planning workshop where both EcoGov personnel, LGU staff, DENR, DA-BFAR and other participants can chart together strategies for effectively and efficiently addressing the gaps. The template for the action planning workshop used for the baseline assessment can be again used.

   To maximize the use of the self-assessment results, feedbacking and follow up discussions at the LGU level might be appropriately timed at the start of the LGU's annual planning and budgeting calendar. During which time, self-assessment results can better input in resource allocation decisions and help prioritize specific policies/ordinances/resolutions, programs, projects and activities that will help address gaps in environmental governance performance.

c) **Keep close tabs on any slippages and lack of or unacceptably slow upward movement in individual 'target' LGUs** and immediately do remedial actions. The venues for such monitoring would be the periodic regional team meetings and sector meetings wherein each sector specialist or assisting professional (AP) will be asked to report on the status of adoption of each of the best practices in each relevant sector, whether assisted or not by EcoGov.

d) **A more targeted assistance strategy should be provided taking into account common technical and institutional gaps, LGU index category as described in 14.3 below and key qualitative information that affects LGU performance**. In terms of the latter, there is a need to evaluate the presence of accountable and functional office and management bodies, opportunities for additional external assistance and institutional collaborations, and reasons for deteriorated performance or failure of LGUs to effectively respond to EcoGov assistance. The midterm results can be used in finetuning existing EcoGov assistance and in identifying more effective and efficient training and technical assistance interventions to address common areas of technical weaknesses (e.g., law enforcement, disposal and sanitation facility, regulation of fishing effort, ordinance formulation, forest

investment, tenure management, monitoring and evaluation) of LGUs per province or EcoGov region. The midterm GSA has also revealed information on LGU strength in each governance principles- functionality, transparency, accountability and public participation. This information should be taken into account in assisting LGUs mainstream the integration of these governance principles in their day-to-day conduct of environment and internal management functions.

- While common training and learning opportunities for LGUs sharing the same problem and resources would be more efficient in terms of resource requirements, there is also a need to **consider the individuality of each LGU in designing specific assistance strategy,** i.e., what system or procedure works in one LGU may not work in another LGU. **Muslim and ARMM municipalities, for instance, may need a different technical assistance strategy and tack considering their unique culture, religion, and history**. In all instances, there is a need to consider the voice of various local stakeholders- women, youth, Muslim, religious, and indigenous peoples included, in consonance with participatory governance principles.

14.3 Major Implications of Mid-Term Results on Project Strategies

The EcoGov-assisted LGUs are expectedly the top-ranked LGUs, since the indicators used in the assessment are based on the intensive technical inputs being provided by the project. The midterm results show a need for EcoGov to assist LGUs adopt best practices in the underperforming sectors, whether currenty EcoGov assisted or not, as low indices in these sectors pull down the over-all index. If direct assistance cannot be provided, EcoGov should assess whether the LGUs concerned can be targeted for indirect assistance through scaling up, grants, or by helping these LGUs leverage external technical and financial support.

LGUs generally need technical assistance in order to address the technical requirements of both solid and liquid waste management. **They also need technical assistance in the area of forest and forestland management not only from EcoGov but particularly from the DENR**. While CRM tend to be a well-performing sector, there are LGUs (Ipil- 0.23, Naga- 0.65, Payao- 0.53, Ayungon- 0.65, Dimataling- 0.63, Cortes and Jagna- 0.71 and Bindoy- 0.76) that still need assistance in this sector.

The grouping of LGUs into four categories can be used in identifying specific strategies for assisting them sustain (in the case of high performing LGUs) or elevate their environmental governance. The following are recommended:

Category 1 (Consistently Well-Performing) LGUs: Assistance strategy will focus on helping these 53 LGUs sustain and enhance the quality, depth and consistency by which they carry out their governance practices. To ensure that any potential "backsliding" away from best practices can be promptly identified and addressed, these LGUs should be closely monitored and immediate remedial actions be agreed with them. Closely guiding these LGUs in the sectors that relatively did not do as well, whether currently assisted or not by EcoGov 2, will enhance the overall or cross sector index.

Category 2 (Median Performing) LGUs: Present range of over-all indices of these 27 LGUs is 0.61-0.76. EcoGov 2 will closely assist them achieve Category 1 status by the final assessment by closely guiding them achieve 1.00 in the EcoGov assisted or best performing sector/s. They will also be closely assisted in the other sectors that are underperforming, whether these sectors are assisted or not by EcoGov. Assessment of critical gaps and close mentoring and monitoring to help LGUs address these gaps, should enable these LGUs achieve an over-all index of at least 0.77.

Category 3 (Consistently Weakly Performing) LGUs: This category includes only Naga and Payao which both registered cross-sector index of 0.32. As mentioned above, Naga deteriorated in all three environment sectors resulting in a much declined midterm over-all index of 0.32 from baseline of 0.47. While both deteriorated in EcoGov-assisted CRM, this sector remained the best performing sector.

Because poor performance is consistent in all sectors, this group of LGUs would need the most intensive assistance to get them to Category 1 status. Naga presently receives upscaling assistance on the badly performing FFM (index of 0.07) and assistance from PCDF on UEM. Payao needs to upgrade in all sectors, particularly UEM where only one best practice has been adopted since the baseline assessment.

For efficiency reasons and taking into account seemingly poor capacity of both LGUs to improve institutional capacity and undergo necessary changes in practices, EcoGov may opt to concentrate providing direct assistance on CRM (presently the better performing sector) to enable the LGU to post significant progress in this most promising sector. Other things being equal, best scenario might be for both LGUs to achieve overspecializing (in CRM) or median performing status.

Category 4 (Over-specializing) LGUs: These 18 LGUs are not consistent performers-performing very well in one sector, but rating very poorly in another, i.e., they tend to "over-specialize". Strategies to assist the above LGUs will need to be calibrated to enable them sustain the performance in the best performing sector/s and enable the "neglected sector/s" to catch up**.** Again, information on which 'best practice" indicators have not been adopted and the context why the LGU neglects certain sector, would be useful input in designing specific interventions. Neglected and EcoGov unassisted sectors that pulled down over-all index can be targeted for 'scaling up' assistance, grants or other (non-EcoGov) external assistance.

14.4 Major Implications of Mid-Term Results on Promoting Best Practices and Ensuring Sustainability of LGU Accomplishments

Poor financial and technical standing have been overwhelmingly cited by underperforming LGUs as constraints to adoption of best practices in all sectors. Nonetheless, the GSA results have also shown that poorer municipalities and cities could allocate sufficient funds to undertake environment projects and initiate positive changes in environmental governance if they so willed it. **What emerged as key is quality of**

LGU leadership and commitment to spearhead necessary improvements. **Equally important is the ability of communities to undergo positive behavioral changes. The commitment of other local stakeholders (multisectoral bodies, local PNP, local coast guard, local DENR, NGOs, POs, etc) to actively participate and sustain their involvement in local environmental governance need be underscored also.**

Most LGUs were able to offset or reduce budgetary problems by mobilizing external support. Some were able to develop institutional mechanisms that made them more efficient and effective in the utilization of available funds and in the choice or prioritization of programs and projects. Some LGUs have also established user's fee system aimed at making environment projects generate funds and become self-liquidating. These LGUs can serve as models for other LGUs.

Given common limitations in LGU budget, manpower and technical resources, **EcoGov should assist LGUs to prioritize activities and closely guide them in the design of facilities and choice of equipment and technology, to reduce instances of erroneous and faulty decisions that put more burden on LGU coffers and reduce their political credibility**. Knowledge products that will serve as simple LGU decision tool, for instance, in the choice of composting machinery and equipment and in the management of their existing composting or waste disposal facility would be very handy.

EcoGov should also intensify in the remaining years of its implementation, activities aimed at strengthening LGU institutional capacity and technical expertise of its staff. This will help a lot in sustaining good environmental governance in as much as weak institutional capacity and lack of technical expertise have been shown a constraint to improving local environmental governance.

While outside technical and financial support can help catalyze appropriate LGU behavior and action, the sustainability of local gains in environmental governance would ultimately rests upon each individual LGU decision. **Because sustainability tend to be affected by changes in political leadership, LGUs should find a way to make 'best practices' institutionalized or mainstreamed, such as for instance by adopting an ordinance institutionalizing these practices, or integrating these practices in their standard operating procedures, systems, and ethical standards.**

The link between politics and environmental governance has become apparent such as for example in the case of Corella, Dauis, Quezon, Dinalungan among others, where constant gridlock between officials belonging to opposing political parties hampered implementation of environment projects. The adverse effect of too much politics in local environmental governance can perhaps be mitigated by the suggestion made above about mainstreaming or institutionalizing 'best practices'. Another useful track would be to develop capacities and give more authority to permanent officials and employees in the conduct of environment functions.

Empowerment of public stakeholders such as for example creating local environment watchdogs with representation from the clergy, academe, women's group,

youth organizations, private sector and indigenous peoples. To strengthen the demand side of good governance, EcoGov should help develop social coalitions that can create pressure for policy and governance reform and monitor LGU action for corruption, abuses and limit over-discretion. Strengthening public participation, accountability and transparency practices in each LGU will serve as internal safeguards against abuses, inaction and incompetence of mandated officials.

Another problem that commonly threatens continuity of LGU initiatives is the failure of LGU initiated environment management bodies to sustain their operation because of various technical, political and financial reasons and lack of incentives. This has been reported in Dipaculao, Maria Aurora, Dauis, Kidapawan City, Koronadal City, Lamitan City, Isabela City, Tukuran, Naga, and RT Lim. This experience highlights the need for careful selection of composition of these multisectoral bodies with emphasis on qualifications, continuous skills/competence improvement, budget support and personal incentives (e.g., transportation and meal allowance, honorarium). Hiring of personnel on job-contract basis to provide temporary employment in both Koronadal City and Kidapawan City has resulted in the constant need for training staff and inability to develop core skilled staff. In the light of these experiences, the creation of permanent office such as MENRO with sufficient funding and regular technical staff should be an ultimate goal of each LGU.

Lastly, it should be pointed out that improving local environmental governance capacity goes beyond helping LGUs adopt 'best practices' in planning, implementation, law enforcement, bidding, etc. To enhance sustainability of good governance, **LGUs should also be able to imbibe and adopt higher and more substantive meaning of environmental governance and relate it to, among others:**

- Effective and responsive problem solving, decision-making, and conflict management;
- Efficient and equitable allocation and management of environmental resources
- Promotion of shared human and ecological interests
- Enhanced ability to formulate responsive and effective policy and programs independent of pressure from special interests
  - aggregation of diverging interests to represent the public interest
  - ability to resist corruptive pressures
  - capacity to consider regulatory and program side effects (e.g. use of Benefit-Cost Analysis, Environment Impact Assessment, Social Impact Assessment, Environmental Risk Assessment, Precautionary Principle)
- Enhanced implementation capacity (carry through policy reforms, implement regulations/programs, etc).
- A moving away from traditional hierarchical control to more horizontal (multilevel, network) governance, which requires them to serve as facilitator/enabler/broker of contracts and agreements.

To promote wider adoption of good environmental governance and its attendant best practices, EcoGov should continue its advocacy and IEC campaign. Well-performing

LCEs and environmental management bodies may be tapped as talking heads and asked to share their experiences/learnings in improving local environmental governance. Well-performing LGU sites may serve as 'learning' sites on good environmental governance.

PART D: LOOKING FORWARD TO THE FINAL/2009 SURVEY

15.0 FINAL/2009 ASSESSMENT PROCEDURE AND SURVEY PERIOD

The final GSA to be conducted in 2009 will be final measurement of LGU performance and will determine whether the project achieves or not its target deliverable of '80 government institutions achieving good environmental index benchmarks".

The same questionnaires and procedures used for the mid-term assessment will be used to ensure comparability of results. Some refinements are suggested below to reduce the time spent on the self-assessment by both staff and GSA participants and in writing the full GSA report, while maintaining the quality and comparability of results.

1) The final questionnaires will follow the same portrait format as this makes facilitation and documentation easier.

2) Two options may be done in terms of documentation of 'higher/improved best practices'. One option will be for these to be no longer treated as 'higher level' and, instead, be integrated among the other indicators of 'best practices'. As each specific 'best practice' is merely ticked in the present format of questionnaires, this will further reduce the time to complete the self-assessment (i.e, no longer need to distinguish between higher and basic practices). A second option, should it be decided that there is greater value in distinguishing between basic and higher level practices is for the latter to be lumped together in one questionnaire. The questionnaire will not be asked amongst the GSA multisectoral participants but will be assigned to selected core LGU technical environment staff. Additionally, there is a need to streamline the list of these practices as some practices seem redundantly asked.

3) Documentation of deteriorations and reasons for such and results/outcomes of good environmental governance will be retained for they continue to be relevant.

4) Data on LGU socio-economic profile will no longer be gathered. The purpose for gathering such data for the baseline and midterm assessments was to gain insights into the factors that influence LGU adoption of best practices in the various sectors. There is now more or less sufficient understanding about these factors which can input into EcoGov's technical assistance strategies.

5) Post-GSA individual perception survey will no longer be conducted as this was most useful only for the baseline and midterm assessment. Insights from this survey had been useful in refining the questionnaires and procedure and in further understanding the context of LGU best practice.

Considering that the GSA takes time to complete and there is a need to come up with the report early 2009, the surveys can be done November-December 2007 for the top-ranked mid-term Category 1 LGUs. For the other LGU categories, the survey can start in early January 2008. All surveys can be targeted to be completed by February 2008. Processing of all LGUs indices can start as soon as results are in so that by March 2008, computation of all indices can be completed. Final report writing can be targeted to be completed by May 2008.

16.0 PROMOTING THE SUCCESS IN THE USE OF GSA AND INSTITUTIONALIZATION OF THIS LGU ENVIRONMENTAL GOVERNANCE MANAGEMENT TOOL

LGU technical staff may be trained in selected high performing LGUs to serve as co-facilitators and co-documentors of EcoGov in the conduct of the final assessment. LGU staff involvement in the survey as co-facilitator and co-documentor will prepare the LGU for sustaining the GSA beyond the EcoGov project.

Another strategy that can help ensure the continuity of GSA and widen its adoption will be to promote its conduct among LGUs covered by the 'scaling up ' strategy in each province or inter-LGU cluster level. Since the GSA 'best practices' indicators are based on technical inputs provided by EcoGov, the use of the GSA in these LGUs will indirectly help promote EcoGov interventions in improving governance of the forest, coastal governance and waste sectors. Inter-LGU management groups like the BEMO, IBRA 9, ENRD may be targeted as lead organizations in the implementation of the GSA. In similar manner, influential and credible multisectoral groups and sector in the LGU like PAMB, academe, and environment NGO may be trained to enable them to absorb the responsibility of sustaining the conduct of the GSA.

The 'best practices' indicators are reasonably broad and flexible enough and they are based on basic environment mandates of LGUs that perhaps DENR, DA-BFAR, DILG, LGU leagues, donor agencies, projects, and other institutions may find them useful. The use of the GSA can help encourage LGUs to reflect on their environment duties and find ways how national government agencies, local and external organizations and donors can be tapped to help them improve local environmental governance.

The GSA can be segmented or even slightly tweaked by sector so that the relevant government agency can pick up the sector relevant to their mandate (e.g., EMB/NSWMC adopting UEM sector questionnaire, DENR CMMO and DA-BFAR the CRM

component). Donor agencies with environment portfolio may use the questionnaire in tracking the success of their supported projects.

Other avenues that may be explored that will open opportunities for promoting and institutionalizing the GSA will be in terms of testing and operationalizing its other broader uses such as in: (a) serving as basis for national agencies like DENR and DILG to reward LGUs practicing good environmental governance, (b) LGUs using GSA results to market themselves to international funding agencies that prioritize the environment; and (c) reinforcing the database for LGU credit ranking.