

# Philippine Wealth Accounting and Valuation of Ecosystem Services (PHIL-WAVES) Technical Assistance Project

## ECOSYSTEM ACCOUNTING TRAINING *Follow-up Course*

**SEPTEMBER 10-12, 2014**



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# CONTENT

## Progress Report (Since February, 2014)

Results  
Achieved

Methods  
Used

Questions  
Asked/  
Issues  
Encountered



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# RESULTS ACHIEVED

Drafted detailed matrix on Trial Accounts with identified ecosystem pressure, services and indicators

Narrowed down coverage of the pilot study in Southern Palawan to 3 areas within Mt. Mantalingahan: one (1) in Española and two (2) in Brooke's Point

Participants were introduced to Ecosystem Accounting and to the analytical approaches used in Ecosystem Accounting

**February 10-14, 2014:  
Training on Ecosystem  
Accounting**

Identified priority ecosystem service for valuation



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# RESULTS ACHIEVED

Matrix for Data Availability and Data Gap Assessment was reviewed

Data availability for Ecosystem Pressure was presented

February 28, 2014:  
Small Group Meeting



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# RESULTS ACHIEVED

Clarification on the definition of land cover *vis-a-vis* forest cover\*\*\*

Identification of critical watershed areas

Refinement of matrices which represent upland, lowland, and coastal/marine areas

**March 13-14, 2014:  
Joint TWG Meeting**

Presentation of available thematic maps

\*\*\* According to NAMRIA, Land Cover is “the observed (bio) physical cover of the earth’s surface” (FAO, 2000) while Forest Cover refers to the “natural and man-made forests, including forests with wetlands and built-up areas” (FAO, 2000).



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# RESULTS ACHIEVED

include Coconut Plantation in the Accounts

policy regulation on land use (who will regulate?)

April 15, 2014:  
**Meeting between the TWG  
(Local) and World Bank**

no digitized map from the  
identified catchments for  
CADT/CADC areas

in case no data is available in  
the catchment level,  
municipal level data can be  
considered subject to the  
approval of the  
experts/consultants



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# RESULTS ACHIEVED

Developed detailed Framework for the Ecosystem Accounts and determined the methodology and data requirement

Developed a Preliminary Schedule of Activities and Work Plan

**April 28, 2014:  
Back to back TWG and  
Video Conference**

Initial assessment of existing data for the marine/coastal, lowland, and upland ecosystem

Identification of policies/laws which are relevant for Ecosystem Account (land use and zoning)



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# RESULTS ACHIEVED

**Participants:** NAMRIA, FMB, LLDA, PCSO (via phone), PMD, FASPS and Phil-WAVES, PCU

The positions of concerned bureaus on ESA's final proposal for the EO product were identified

## June 04, 2014: Small Group Meeting on ESA's Proposal

**ESA's Proposal:** To refine (spatially) and update (inclusion of more classes) the existing NAMRIA land cover map for 2010 for catchment 3 (Pulot Sub-watershed)

The concerned agencies/ offices affirmed to ESA's final proposal



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# RESULTS ACHIEVED

## Result of the Consultation Meeting held on June 04, 2014 on ESA's Final Proposal for the Earth Observation Products

NAMRIA	On ESA's 8 Classifications: "Classification is fine as long as it will only be used for Phil-WAVES project and that the data to be generated will not be used or affect the regular land cover project of FMB/NAMRIA."
FMB	"The proposal is fine as it will provide data on Forest density on the different land cover categories for 2010. However, it would be better if said data can also be generated for 2003 to give us an idea on the changes in land cover and forest density overtime from 2003-2010."
PCSD	"Agree to accept the proposal in spite of the limitations especially with regards to the interpretation of cultivated land especially for coconut, oil palm, and irrigated paddy rice lands. Recommend to ESA the inclusion for interpretation of the cultivated lands devoted to the aforementioned crops."
LLDA	Has the same position with that of NAMRIA and 2010 as the based year.



# RESULTS ACHIEVED

**Participants:** FMB, World Bank Local Consultant, Phil-WAVES, PCU

**June 18, 2014:**  
**Small Group Meeting on  
Land Cover Change  
Matrix**

Analysis was made on the Changes on Land Cover of 2003 and 2010 in *Pulot* Sub-watershed vis-à-vis the ECAN Zone Map of Southern Palawan, LC, and Land Cover Maps

Cadastral Map vis-à-vis Land Classification Map:  
Encroachment on Forestland

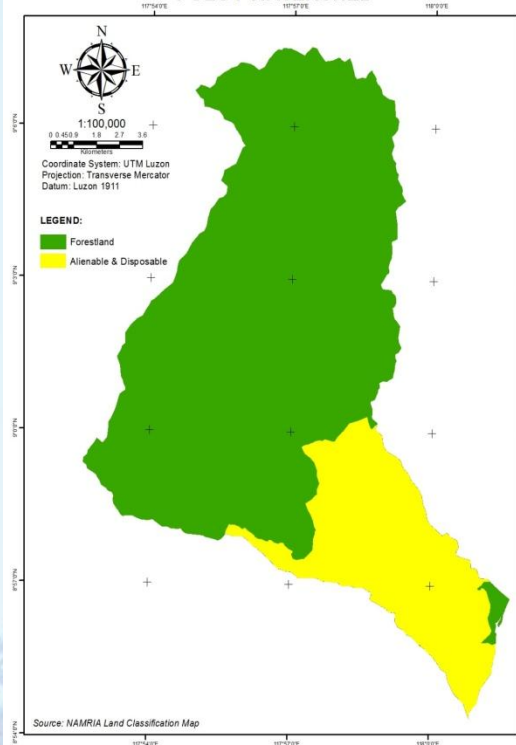


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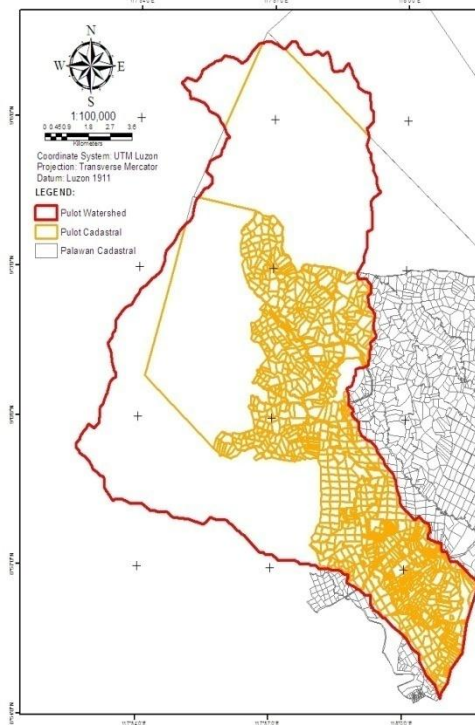


# RESULTS ACHIEVED

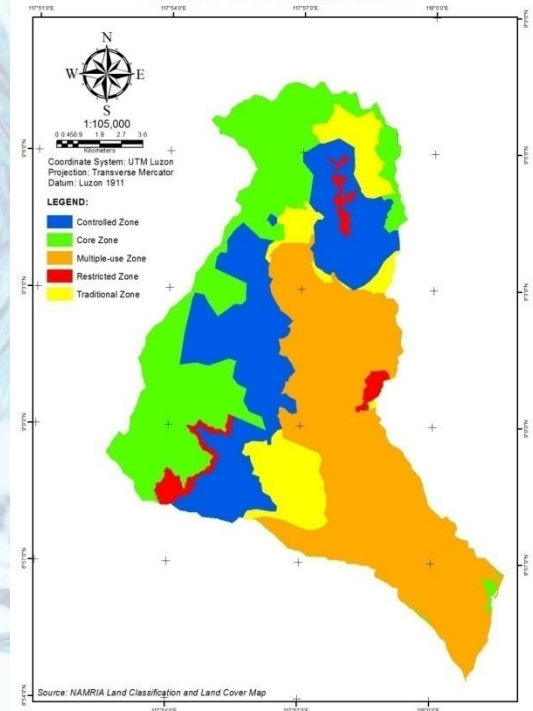
**LAND CLASSIFICATION STATUS OF PULOT WATERSHED**



**CADASTRAL MAP OF PULOT WATERSHED**



**ENVIRONMENTALLY CRITICAL AREAS NETWORK (ECAN) ZONE MAP OF PULOT WATERSHED**



LAND CLASSIFICATION	AREA (ha)
Alienable & Disposable	3,931.20
Forestland	14,128.80
<b>Grand Total</b>	<b>18,060.00</b>

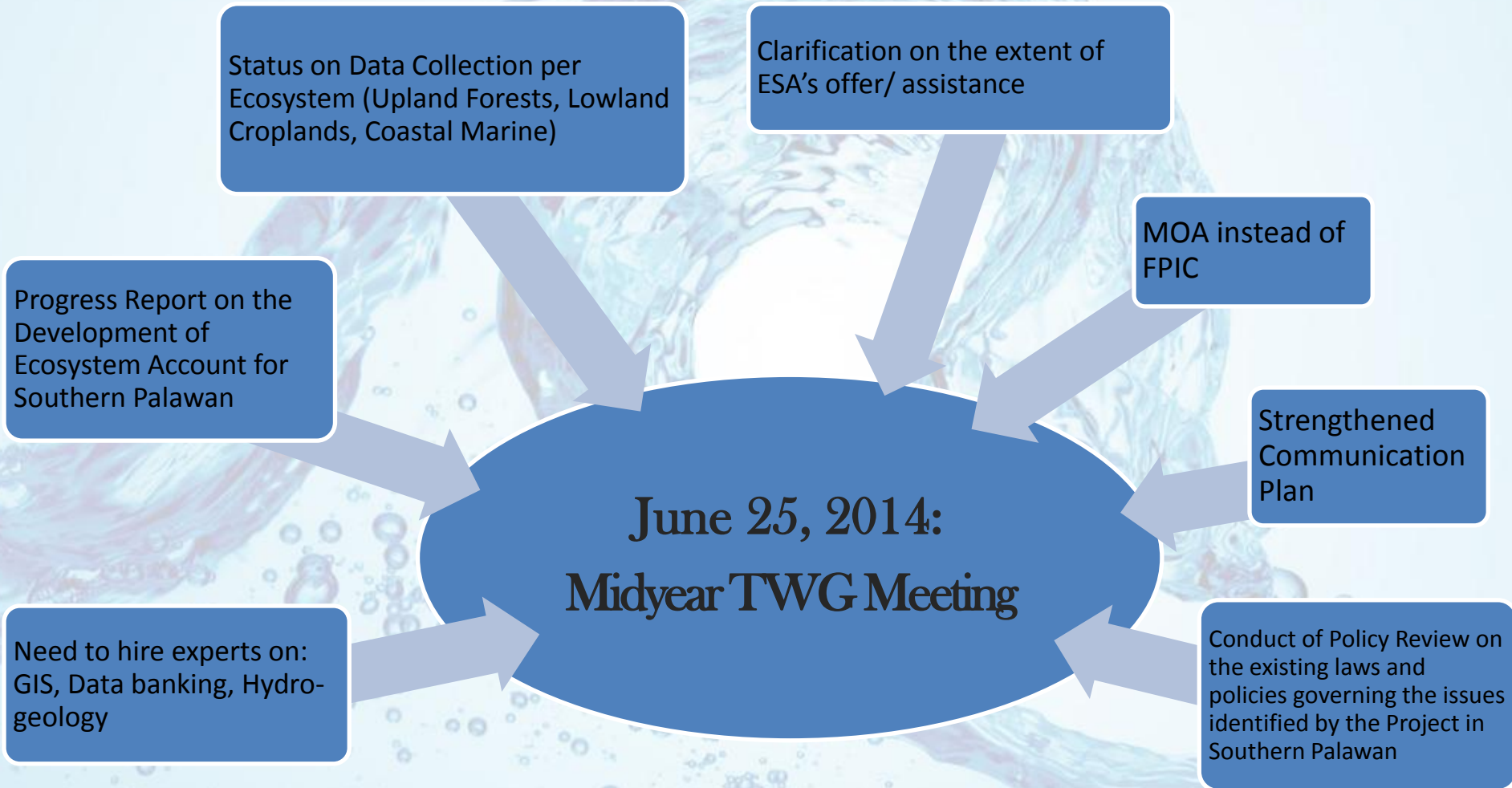
Name of Barangay	AREA (ha)
Iraray	27.45
Labog	397.61
Pulot II	6,382.92
Pulot Shore	1,430.56
Punang	3,709.43
(blank)	1,628.55
<b>TOTAL</b>	<b>13,576.52</b>

ECAN ZONE	AREA
Controlled Zone	4,211.06
Core Zone	4,756.10
Multiple-use Zone	6,787.85
Restricted Zone	469.30
Traditional Zone	1,828.87
(blank)	6.83
<b>Grand Total</b>	<b>18060.00</b>



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# RESULTS ACHIEVED





# RESULTS ACHIEVED

Ecosystem Account Framework by Dr. Gem Castillo was revised

Proposed trainings and workshops on the following were discussed:

Work Plan for the remaining 6 months (July to December, 2014) was agreed to be prepared

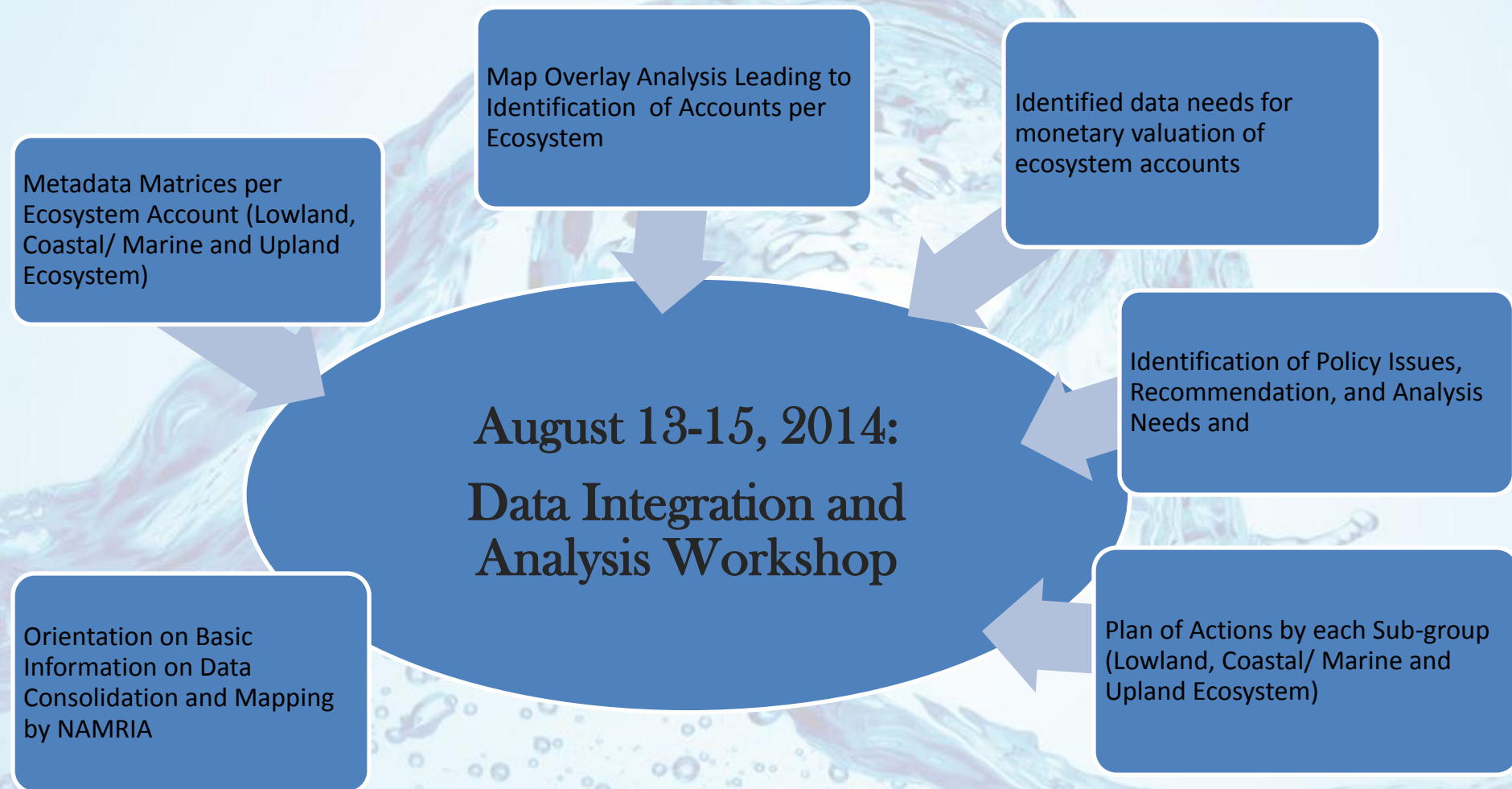
## July 15, 2014: Preparatory Meeting for the Video Conference

- ^Bio-Physical Modelling
- ^Data Integration and Analysis Workshop
- ^Valuation of ecosystem services
- ^Building Geo-database
- ^Policy Analysis



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# RESULTS ACHIEVED



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# METHODS USED

Development of  
Ecosystem  
Account

- Framework of Ecosystem Accounting in Southern Palawan

Identification of  
Ecosystem Key  
Pressures

- DPSIR Model

Selection of  
Sub-watershed

- Prioritization based on data availability
- Prioritization based on relevance to ecosystem key pressures



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# METHODS USED

Identification of  
Ecosystem Services  
(Coastal/ Marine,  
Lowland, Upland)  
and Land Accounts

- Data Availability and Data Gaps Assessment

Ecosystem Data  
Requirements

- Secondary Data Gathering

Modelling of  
Ecosystems

- Spatial modelling of waters supply and demand through hydrologic modelling
- Reconnaissance Survey
- Focus Group Discussion (FGD)



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# METHODS USED

Identification of  
Sub-accounts for  
each ecosystem

- Map Overlay Analysis (base map: land classification)

Metadata  
Collection

- Data Integration and Analysis

Policy  
Analysis

- Conduct of Policy Review on the existing laws and policies governing the issues identified by the Project in Southern Palawan



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# QUESTIONS ASKED AND ISSUES ENCOUNTERED

## Policy-related

BMB: What are the policies that we need to address given that kind of data?

Standardization of boundary maps is needed

Create an Oversight Body (multipartite organization) to do monitoring on oil palm plantations

Encroachment in forest land area of cadastral lands

- Exploratory discussion among DAR, DA, and DENR on conduct of cadastral surveys in view of findings that cadastral surveys were undertaken within Timberlands



# QUESTIONS ASKED AND ISSUES ENCOUNTERED

## Technical

MGB cannot produce the data on mine tailings and other local data.

FMB on FRA: If the available data are on the scale of the province level, can that be used to assess the forest account for the entire Southern Palawan?

The available data on-hand are for biodiversity within Mt. Mantalingahan Protected Landscape. Can we use these data, using the same land cover, in those areas located outside MMPL?



# QUESTIONS ASKED AND ISSUES ENCOUNTERED

## Technical

Who will utilize the data once developed? Who are the stakeholders? Who are we catering?

Can we use provincial data to approximate development of account?

Can we use the data in different scales (LGU, provincial, watershed, and sub-watershed levels) for developing ecosystem accounts?





# QUESTIONS ASKED AND ISSUES ENCOUNTERED

## Technical

Exploratory discussion among DAR, DA, and DENR on conduct of cadastral surveys in view of findings that cadastral surveys were undertaken within Timberlands

The available data on-hand are for biodiversity within Mt. Mantalingahan Protected Landscape. Can we use these data, using the same land cover, in those areas located outside MMPL?



Cost sharing

BETF and RETF-related  
concerns





# Thank you!



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