



Training Workshop Program

VALUING WATER PROVISIONING SERVICES AND SEDIMENT RETENTION SERVICES OF THE STO. TOMAS WATERSHED

ERDB Auditorium, College, Los Baños, Laguna
18 October 2024

Background

The Sto. Tomas Watershed, a vital source of water and other ecosystem services, faces growing pressure from urbanization, agriculture, and resource exploitation. It is also affected by continuing lahar movement and deposition caused by the 1992 Mt. Pinatubo volcanic eruption. That event changed the landscape of the whole watershed thus affecting its watershed ecosystem services. Effective management of this watershed requires a clear understanding of the current value of its ecosystem services under the post-volcano eruption. By quantifying these values, decision-makers can understand how the watershed in its current form contributes to the community's well-being. Designing watershed management programs can also be evaluated relative to how these affect the extent of natural capital, their conditions, and the flow of ecosystem services coming therefrom.

This one-day training aims to equip participants with the knowledge and skills to estimate the value of two ecosystem services provided by Sto. Tomas watershed: water provisioning and sediment retention. The session will explore alternative valuation methods for these two ecosystem services and evaluate their applicability for the Sto. Tomas Watershed.

Rationale

Ecosystem services, such as water regulation, carbon sequestration, and agricultural provisioning, provide immense economic and environmental value to the communities surrounding the Sto. Tomas Watershed. However, the contribution of services to the livelihood of the community is often not captured in the accounting of the returns that people get from using the watershed resource. This link is poorly understood and could result in mismanagement of the ecosystem assets that will eventually negatively impact the livelihood of the people. There are various methods available to value these ecosystem services. These methods need to be understood and learned by the people who are given the task of managing the country's watersheds. The course is thus designed to cover what these various valuation methods are. The participants will be led in the assessment of the



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methods that will suit their needs and the conditions of the study sites. The concept, methods, and links to watershed management will be discussed. In addition, the InVEST output will be linked to the valuation methods.

Training Objectives

By the end of the training, participants will be able to:

1. **Understand the concept of ecosystem services** and their importance to the Sto. Tomas Watershed.
2. **Know the different valuation methods for estimating the water provisioning ecosystem services of the Sto. Tomas Watershed.**
3. **Learn the different valuation methods for sediment retention function of the watershed**
4. **Evaluate which method is best suited for each of the two ecosystem services of Sto. Tomas Watershed**
5. **Learn how to Integrate ecosystem service valuation** into decision-making processes to promote sustainable watershed management.

Training Schedule

Duration: 1 Day

Time	Activity	Description	Facilitator
8:00 AM - 8:30 AM	Registration Welcome Remarks	Participants register and receive training materials. Opening and welcome remarks <ul style="list-style-type: none"> • ADB • ERDB • Economy and Environment Group Philippines 	Abi Bautista, ERDB Jindra Samson, ADB
8:30 AM - 9:00 AM	Topic 1: Linking ecosystem service valuation to watershed management	Overview of ecosystem services and their relevance to the Sto. Tomas Watershed.	Dr. Herminia A. Francisco, Economy and Environment Group Philippines



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Time	Activity	Description	Facilitator
9:00 AM - 9:30 AM	Topic 2: Overview of Valuation Methods	Introduction to the concept of economic valuation of ecosystem services and an overview of methods.	Dr. Herminia A. Francisco, Economy and Environment Group Philippines
9:30 AM – 10:30 AM	Topic 3: Methods to Value Water Provisioning ES	<ul style="list-style-type: none"> • Rent Estimation • Change in productivity method • Price of Substitute Product 	Dr. Asa Jose U. Sajise, Economy and Environment Group Philippines
10:30 AM - 10:45 AM	Coffee Break		
10:45 AM- 12:00 AM	Workshop Session 1: Valuing Water Provisioning ES using Rent Estimation Method and Change in Productivity	<ul style="list-style-type: none"> • Analysis of InVEST outputs and how to use it in valuing ES • Data requirements for valuation, data collection • Analyses of data 	Dr. Asa Jose U. Sajise/Dr. Canesio D. Predo/Dr. Gem B. Castillo, Economy and Environment Group Philippines
12:00 PM– 1:00 PM	Lunch Break		
1:00 PM - 3:00 PM	Topic 4 & Workshop Session 2: Valuing Sediment Retention Services	<p>Cost of Dredging Replacement cost/shadow project Fertilizer equivalent Change in Productivity</p> <p>Analysis of InVEST output and how to value Sediment Retention Services</p> <ul style="list-style-type: none"> • Data requirements for valuation, data collection • Analyses of data 	Dr. Canesio D. Predo, Economy and Environment Group Philippines
3:00 PM - 3:15 PM	Coffee Break		
3:15 PM - 4:00 PM	Topic 5: Application of Valuation Results in Watershed Management Decision-	Discussion on how valuation results can be linked to InVEST outputs and its use policymaking	Dr. Gem B. Castillo, Economy and Environment Group Philippines



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Time	Activity	Description	Facilitator
	making and Program Designs	and resource management decisions.	
4:00 PM - 4:15 PM	Closing and Next Steps	Summary of key takeaways, next steps in data collection, survey preparation, conduct of survey, and closing remarks.	Maria Rowena Cham, ADB ERDB Director (TBD)

Zoom Meeting Details

Zoom Meeting link:

<https://us02web.zoom.us/j/88662710098?pwd=ECpsRF5euUquEOplo4emKyvFONw0RT.1>

Meeting ID: 886 6271 0098

Passcode: 596029

List of Participants

ERDB-DENR

1. Timothy John M. Dizon
2. Karen Rae M. Fortus
3. Kristine Marie S. Amatus
4. Froilan Jay Menguito
5. Nelson Levi M. Lantican
6. Jennilyn A. Decuzar
7. Rafael L. Sibal
8. Kim Aaron U. Tolentino
9. Ron Zeus Barbosa
10. Annieraj A. Velasco
11. Carmela A. Taguiam
12. Adrian A. Lansigan
13. Ma. Abigail V. Bautista
14. Roy Joven R. Amatus
15. David Ivan T. Malinao
16. Maria Lourdes G. Ferrer*
17. Conrado B. Marquez*
18. Paul J. Cuadra*

EEG PHILIPPINES

1. Dr. Gem B. Castillo
2. Dr. Herminia A. Francisco
3. Dr. Canesio D. Predo
4. Dr. Asa Jose U. Sajise
5. Earl Joanne Santos-Ramirez
6. Mariel Katrina Miranda
7. Julienne Bariuan-Elca

ASIAN DEVELOPMENT BANK

1. Maria Rowena Cham
2. Jindra Samson
3. Dorothy Bantasan
4. Martino Pelli