PEOPLE
PLANET
PROSPERITY

Highlights and Lessons Learned from the 3Ps Project: Philippines Pilot

ADB

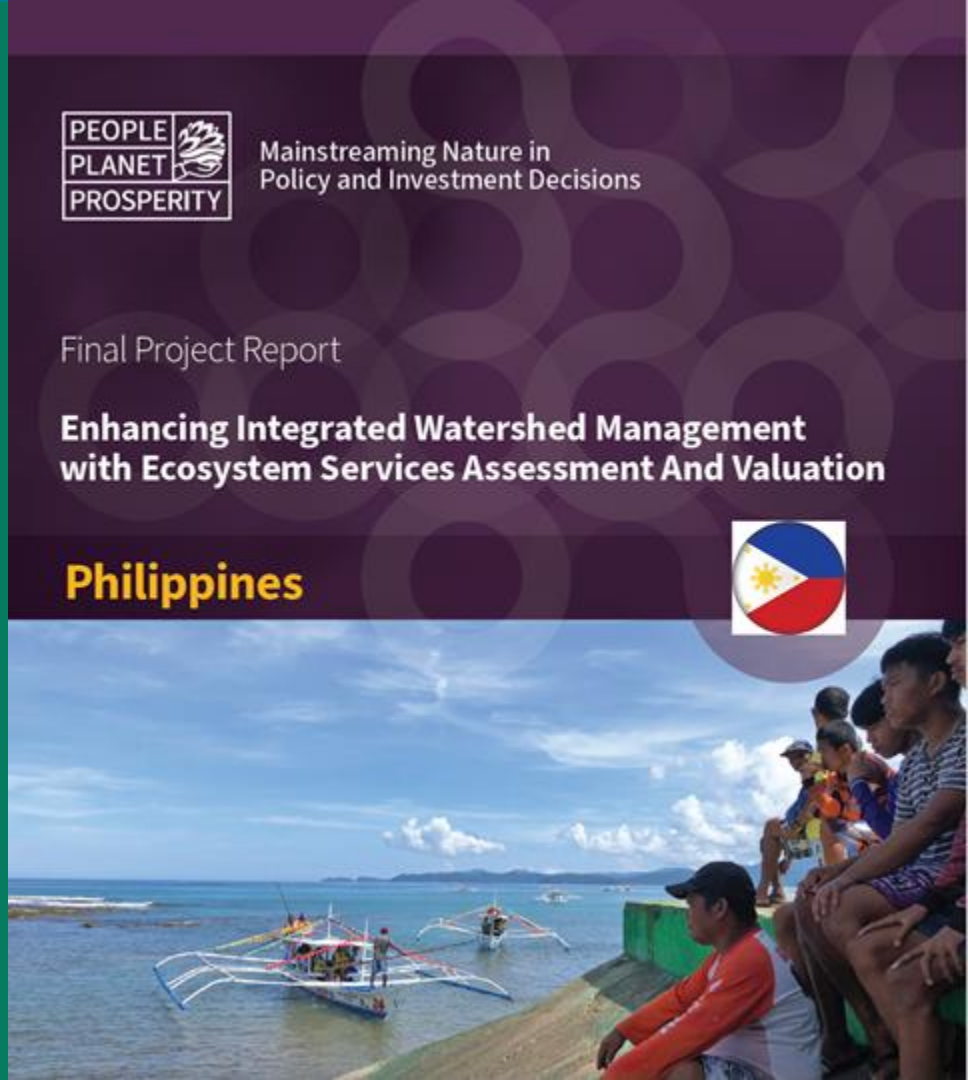
natural capital PROJECT

Project Overview

Jess Silver

Natural Capital Project,

Stanford University



3P Pilot Projects in The Philippines

Pilot Project 1: Enhancing Integrated Watershed Management Planning (IWMP) using ecosystem services assessment and valuation

Key partners: DENR-ERDB national and field office staff, ADB, EEG, Stanford

Scale: Watershed

Timeline: 12 months

Pilot Project 2: Rapid assessment of tourism visitation and expenditures to ADB Regional Flyway sites in the Philippines

Key partners: ADB Regional Flyway Program, Stanford

Scale: National

Timeline: 2 months

Key Activities (Pilot Project 1: Enhancing watershed management through ES assessment and valuation)

- Provide in-depth training for DENR on
  - Ecosystem services assessment
  - Ecosystem services valuation
  - Ecosystem services accounting in the UN-SEEA framework
- Contribute to DENR Documentation
- Co-develop a roadmap with DENR identifying pathways for using results to improve watershed management

Key Activities (Pilot Project 1: Enhancing watershed management through ES assessment and valuation)

- Provide in-depth training for DENR on
  - Ecosystem services assessment
  - Ecosystem services valuation
  - Ecosystem services accounting in the UN-SEEA framework
- Contribute to DENR Documentation
- Co-develop a roadmap with DENR identifying pathways for using results to improve watershed management

Customized remote training (7 90-minute sessions) for 32 participants form DENR-ERDB main and regional offices on ES assessment using InVEST + tailored guidance. *DENR produced baseline assessments for 3 key services.*

Workshops (3), site visits (2) and in-depth training for DENR on ES valuation including conducting focus groups, administering surveys, applying different valuation approaches and preparing ecosystem accounts. *DENR, EEG and ADB co-produced monetary and physical accounts for 3 key services.*

Key Activities (Pilot Project 1: Enhancing watershed management through ES assessment and valuation)

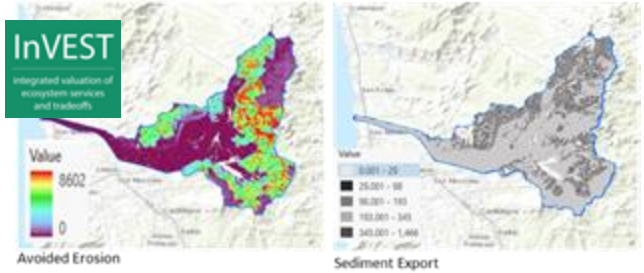
- Provide in-depth training for DENR on
  - Ecosystem services assessment
  - Ecosystem services valuation
  - Ecosystem services accounting in the UN-SEEA framework
- Contribute to DENR Documentation
- Co-develop a roadmap with DENR identifying pathways for using results to improve watershed management

Tailored guidance and methods documentation on ES assessment and valuation for integration into DENR manuals. *DENR is currently applying methodologies in second watershed.*

Key Activities (Pilot Project 1: Enhancing watershed management through ES assessment and valuation)

➥ Co-develop a roadmap with DENR identifying pathways for using results to improve watershed management

Assessment



Accounting

Outcomes

Enhancing IWMP

How can ES mapping & valuation inform how and where to….

…prioritize management actions

…set targets

…track outcomes over time

PEOPLE PLANET PROSPERITY

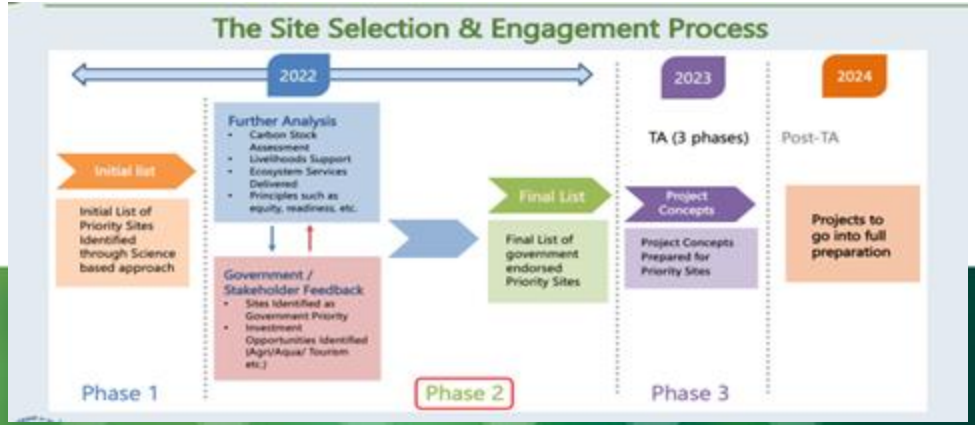
Continuing beyond the pilot; lessons learned and next steps

- DENR is currently applying methodologies to a second watershed on Luzon Island (Palawig watershed)
- Technical and data limitations identified during the pilot have catalyzed the following action:
  - DENR has advocated for integrating instrumentation requirements into the Implementing Rules and Regulations (IRR) of the PENCAS Act. These recommendations have gained the support of DENR's Technical Working Group (TWG) on NCA, ensuring that future NCA applications are equipped with more reliable data.
  - Stanford will work to create additional guidance and tools to support water model calibrations and lower the barrier for users.
- Exploring a 'Phase 2' to fortify existing methodologies and focus on linking ES assessment and valuation to watershed management policies.

Pilot Project 2: Rapid assessment of tourism visitation and expenditures to ADB Regional Flyway sites in the Philippines

Pilot project Goal: Demonstrate an example of a rapid ecosystem services assessment approach using InVEST to inform prioritization of RFI sites in The Philippines

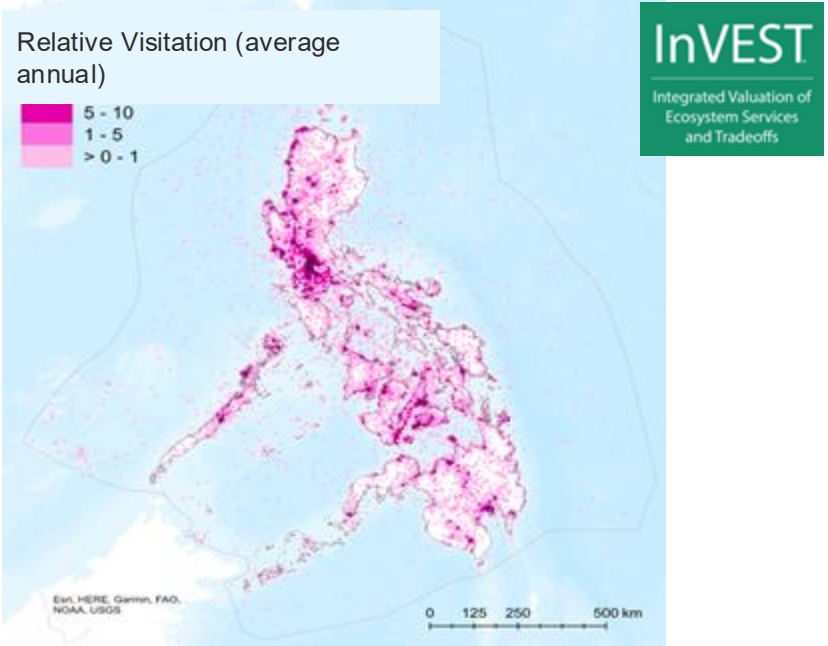
Key partners: Asian Development Bank (ADB) Regional Flyway Staff



PEOPLE
PLANET
PROSPERITY

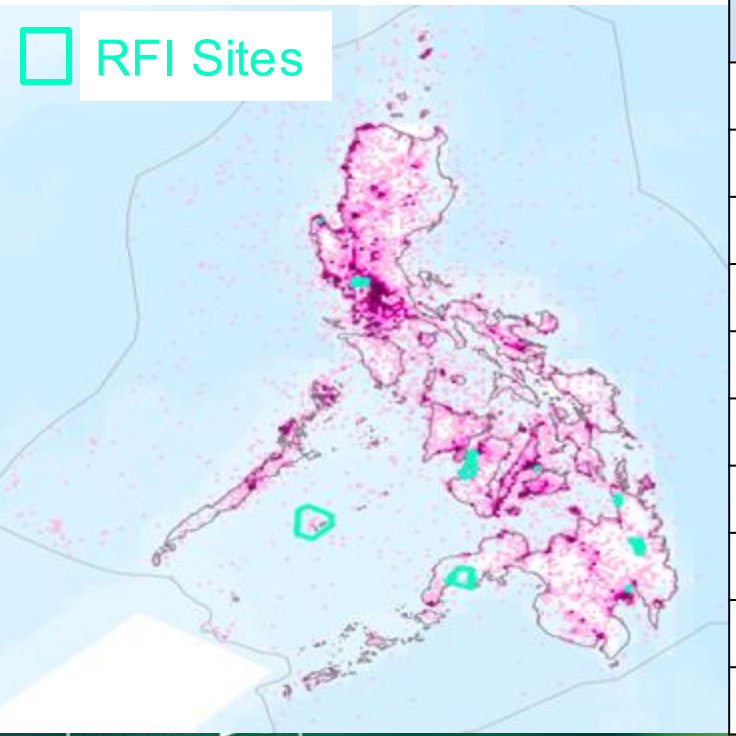
Estimating visitation to RFI sites in The Philippines

The InVEST recreation model can help us understand ***where*** people are visiting across a landscape, ***what*** draws them there, and estimate tourism revenues.



PEOPLE PLANET PROSPERITY

Estimating visitation expenditures to RFI sites in The Philippines



RFI site	Estimated annual foreign visitor-days within RFI site	Estimated annual foreign visitor-days within 10km of RFI site	Estimated annual expenditures within 10km of RFI site (Millions of Philippine pesos)
Olango Island	680	54,874	$442M
Negros Occidental	1,191	33,142	$266.9M
Bulacan	3,746	31,337	$252.4M
Sasmuan Pampanga	237	7,987	$64.3M
Panabo Coast	697	6,556	$52.8M
Balanga Wetlands -	237	6,113	$49.2M
Bangrin MPA	220	2,673	$21.5M
Tubbataha Reefs	834	936	$7.5M
Agusan Marsh	289	902	$7.3M
Lake Mainit	323	765	$6.2M

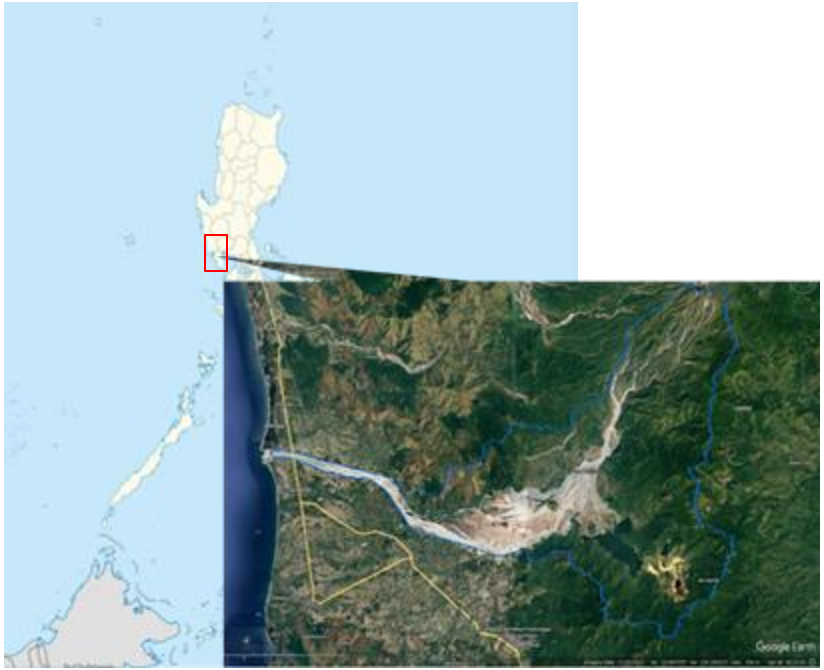
Ecosystem Services Assessment and Valuation

Martino Pelli, Senior Economist
Economic Research and Development Impact Department, ADB

PEOPLE
PLANET
PROSPERITY

Why we piloted NCA in Sto Tomas

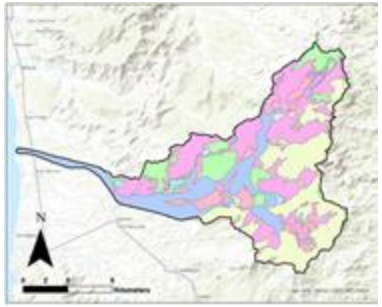
- Critical watershed for water, biodiversity, agriculture, and livelihoods
- Strong local interest and planning processes already in place (e.g. IWMP)
- Goal: provide spatially explicit, policy-relevant ecosystem service information
- Partnership with Stanford Natural Capital Project, DENR, and EEG Philippines

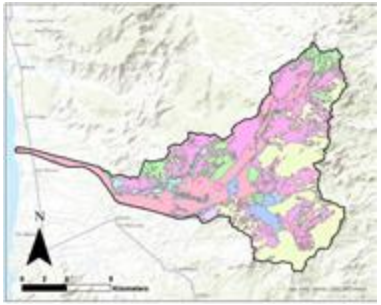


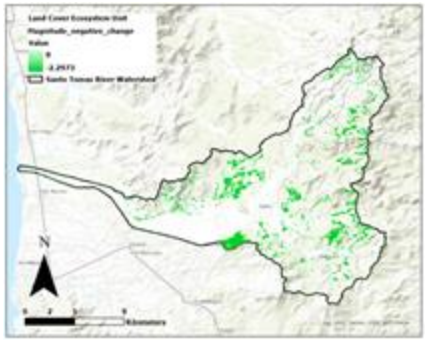
PEOPLE
PLANET
PROSPERITY

What we learned from the Ecosystem Accounts

- Open forest and inland water bodies declined between 2015 and 2020
- Sharp increase in open/barren land: +2,776 ha
- Carbon storage declined by 35,800 metric tons (valued at roughly 1 million USD)
- Agriculture water provisioning valued at over 600,000 USD
- High erosion risk areas identified through sediment retention modelling







PEOPLE
PLANET
PROSPERITY

ADB takeaways from the Sto Tomas pilot

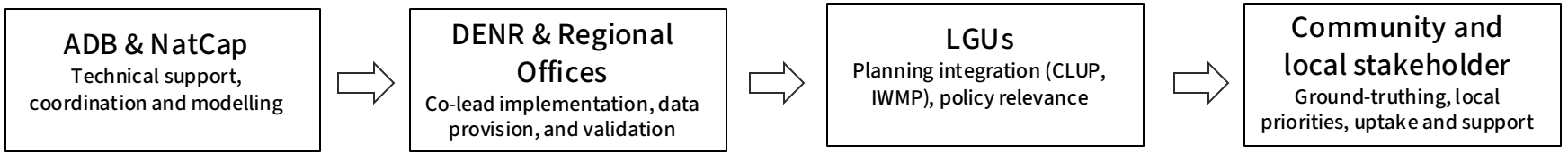
Valuation enhances decision making
Monetizing services made trade-offs more visible

Value is spatial
Ecosystem services are not evenly distributed

Capacity and collaboration are key
Technical work was credible because of strong partnership and local buy-in

Moving from Pilot to Practice

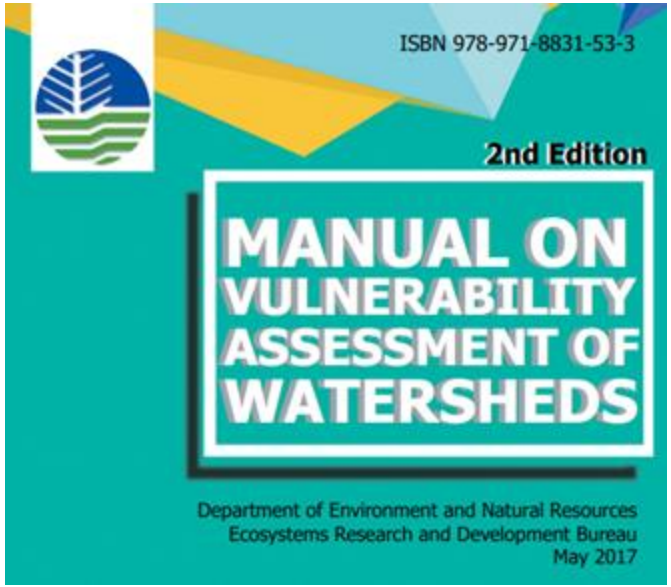
- Natural capital assessment should be an upstream input to planning
- Results can inform IWMPs, CLUPs, and possibly PES schemes
- Strong case for integrating this work into future ADB-supported investments
- Opportunity to replicate in other priority watersheds and countries.



Reflections and Lessons Learned

Abigail Bautista
Department of Environment and Natural Resources - Ecosystems Research and Development Bureau (DENR-ERDB), Philippines

BACKGROUND



Development of Vulnerability Assessment Tools:

- ERDB initiated efforts in 2008 to develop tools for assessing environmental vulnerability, part of the watershed characterization process outline in **DMC 2008-05**.
- **Vulnerability Assessment of Watersheds Manual:**
  - Published in 2011
  - Updated in 2017 to include adaptive capacity for climate change
  - Rolled out to regional offices in 2018
- **FMB Technical Bulletin 16-A (2019):** Integrated terrestrial and coastal VA methodologies

PEOPLE
PLANET
PROSPERITY

PROJECT DETAILS

Objectives:

1. Integrate NCA into WCVA, making ecosystem service valuation a core part of watershed assessments.
2. Update the Vulnerability Assessment Manual to reflect these enhancements.
3. Build capacity among DENR staff and stakeholders.
4. Inform policy with evidence-based recommendations.

Expected Outputs:

- Valuation of ecosystem services in the Santo Tomas Watershed
- Updated Vulnerability Assessment (VA) Manual featuring NCA tools

The project builds on the existing WCVA platform and simply adding new parameters to capture the value of ecosystem services.

PEOPLE
PLANET
PROSPERITY

KEY TAKEAWAYS

CHALLENGES	LESSONS LEARNED
1. Technical and Data Limitations 2. Capacity Gaps 3. Policy and Institutional Barriers	1. Start Small, Then Scale Up 2. Local Knowledge is Key 3. Documentation is Crucial

MAINSTREAMING NCA

Proposed provisions in the PENCAS IRR:

- Installation and maintenance of environmental monitoring equipment
- Identification of missing long-term datasets
- Standardization of data collection
- Regular validation mechanisms

Relevance to ADB Priorities in Philippines

Sanath Ranawana
SG-AFNR, Asian Development Bank

3Ps Project Collaborators

ADB

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

natural capital PROJECT

IDB

Project Funders

PROGREEN
A Global Partnership for Sustainable and Resilient Landscapes

gef global environment facility
INVESTING IN OUR PLANET

GORDON AND BETTY MOORE FOUNDATION

Thank you

ADB

PEOPLE
PLANET
PROSPERITY

natural capital
PROJECT