Wealth Accounting and Valuation of Ecosystem Services in the Philippines – Phil-WAVES

1st Phil-WAVES Stakeholder Consultation

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Outline of the presentation

Section 1: Introducing the key concepts

- Comprehensive wealth & natural capital
- Uses of Environmental Accounts
- WAVES Global Partnership Program

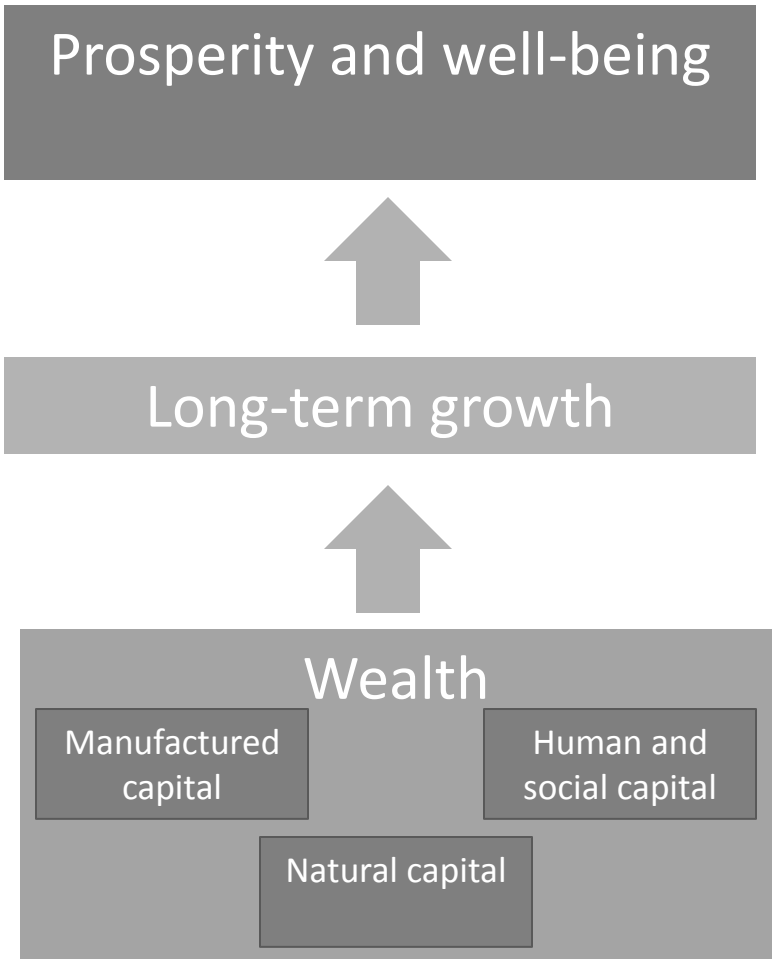
Section 2: Introducing the Phil-WAVES TA

- Introduction
- Agreed Components

Section 3: WAVES in other countries

GDP is an outdated & misleading measure of growth

- Change in GDP tells us if **growth is occurring**.
- Changes in wealth tell us if **growth is sustainable**.
- The process of building wealth involves **managing a portfolio of assets**, including
  - Manufactured capital
  - Human & social capital
  - **Natural capital**



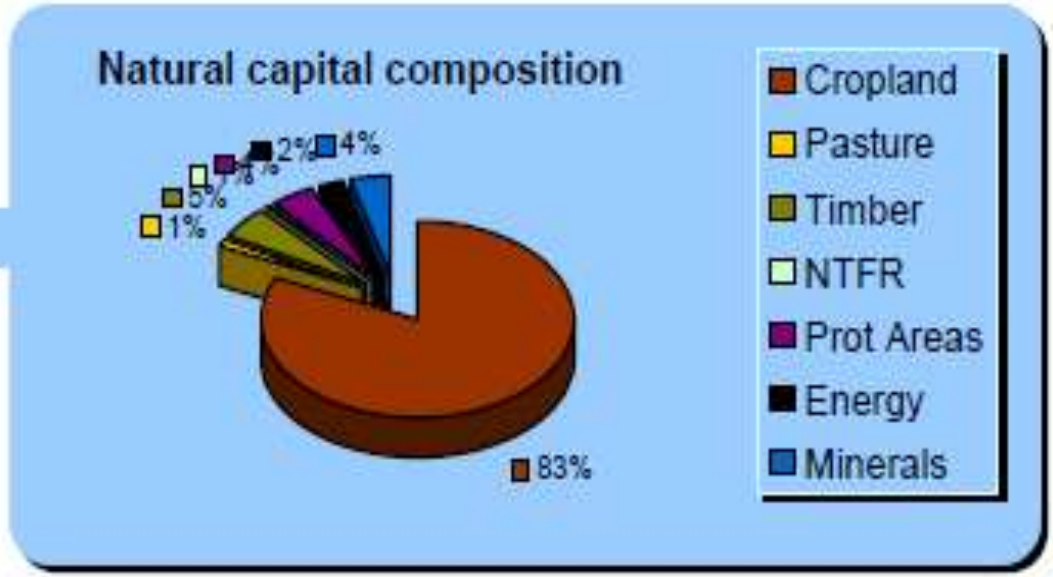
Natural Capital is a critical component of wealth

- Especially for developing countries, where it makes up a **significant share (36%) of total wealth**.
- However, its contribution is **largely unaccounted for**.

Wealth of the Philippines ($ per capita, 2005)

	US$ per capita (2005)
Total Wealth	18,274
Produced Capital	2,485
Natural Capital	6,500
Intangible Capital	9,289

** Source: World Bank, 2006, Where is the Wealth of Nations?, World Bank: Washington DC*

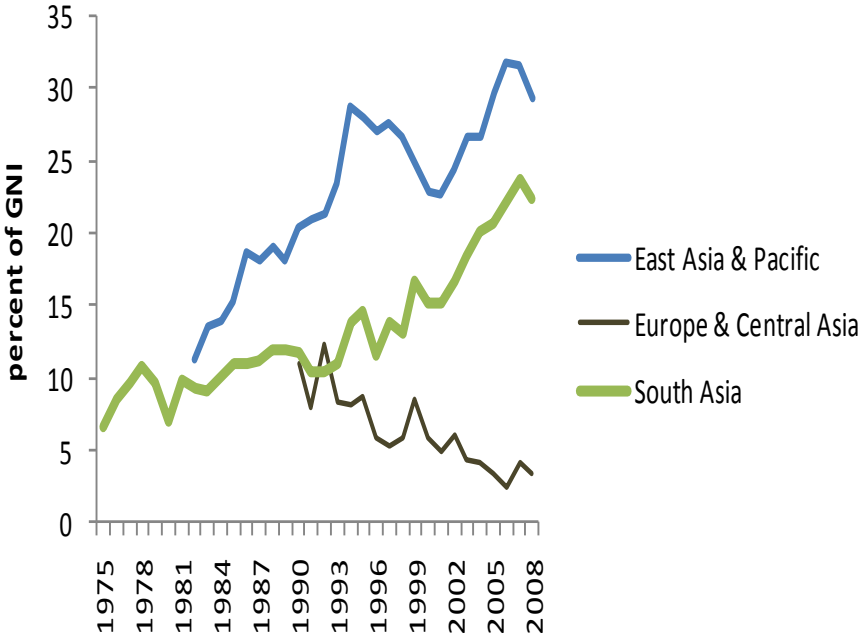


It can tells us whether wealth is growing or declining…

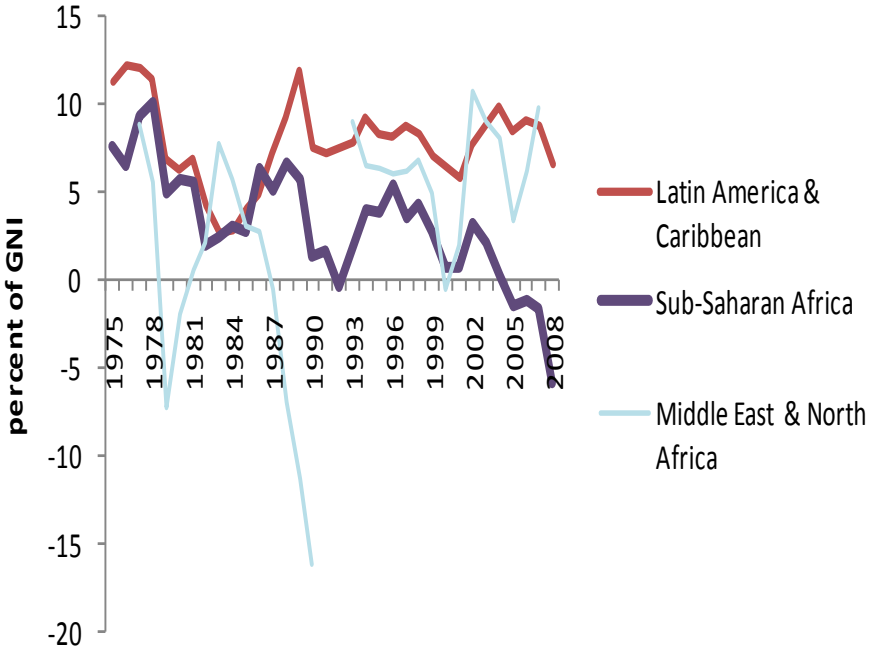
Building wealth ensures sustainable development

Depleting wealth – what will be left for future generations?

Adjusted Net Savings in EAP, ECA & SAR



Adjusted Net Savings in LCR, MNA & SSA



… and help make informed decisions about land use

Asset Accounts for Mangroves in Thailand

Value of mangrove

- Accounting only for marketed goods (timber and NTFPs): **$864** per ha
- Accounting also for coastal protection: **$16,861** per ha

(+ ~ **$10,000** per ha for Polyculture fisheries)

Value if converted to shrimp farm

- **$9,632** per ha

Source: Barbier, 2011
Villaluz, 2012

What is WAVES?

Implement green accounting in developed & developing countries

What will WAVES do globally?

Issues		WAVES solution
Lack of a clear policy link		Help countries adopt and **implement accounts** that are **relevant for policies** Like TEEB**, compile body of experience**
Lack of an internationally agreed methodology		Use **SEEA 2012** adopted by UNSC **Partnership to develop** ecosystem accounting **methodology**
Limited capacity		**Global platform** for **training** and **knowledge sharing** with support from international experts
Lack of leadership		World Bank using **convening power** to build on renewed consensus

SEEA

System of Environmental-Economics Accounting - S E E A

A coherent & integrated

measurement framework

for organizing

environmental data

& applying it to

sustainability & ***green economy***

decision-making

Sustainability

Sustainability – Economic, Environmental, Society

Why not GDP? – It is a solitary indicator does not take into account whether the initiatives are drawing down national wealth by

- depleting natural resources
- damaging the health of the population or
- restricting their access to vital resources such as water and energy

SEEA

SEEA provides a coherent and integrated framework for

- collecting,
- organizing,
- analysing,
- presenting environmental data &
- relating it to economic and social data.

SEEA

- providing standard terminology, definitions & classifications for environment-economy statistics:

- measures of the physical stocks of natural capital and their values,
- adding physical measures of flows resources and natural capital (land, metals and minerals, timber, energy, water, fish, air emissions, water emissions, solid waste), &
- linking these to economic activities (producers & consumers) and societal benefits.

What will WAVES do in the Philippines?

- **National Mineral Accounts:** What is the mineral wealth of the Philippines & how could it be shared equitably & sustainably?
- **Ecosystem account for Southern Palawan:** What are the social, economic & environmental trade-offs of different resource use scenarios (e.g. minerals vs. ecotourism) & what are the implications for sustainable management?

What will WAVES do in the Philippines?

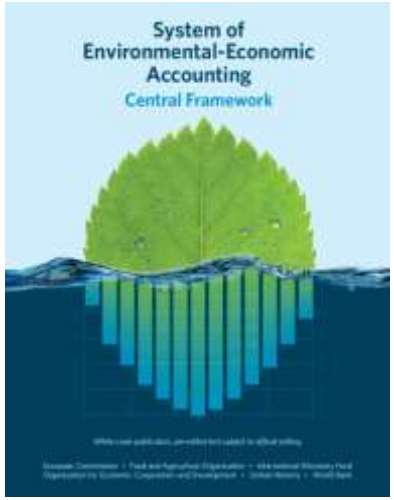
- **National Mangrove Accounts:** What is the value of mangroves & mangrove reforestation? For coastal zone protection? For fisheries & tourism? For REDD+?
- **Ecosystem account for Laguna Lake basin:** How can water pricing capture the value of other competing water uses (e.g. habitat for fisheries, watershed protection, recreation etc.)?

Why is it a good time to promote NCA?

Four main perspectives:

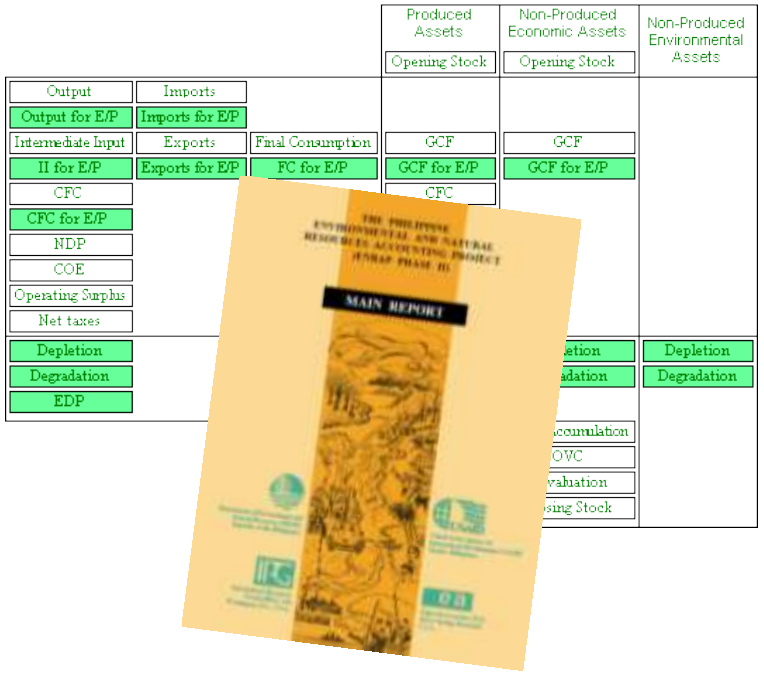
- **Policy: there is strong demand for evidence-based decision-making** in the President's social compact & key development plans.

- **Technical: methodological issues have been resolved** through the recent endorsement of SEEA 2012, overcoming institutional obstacles faced by earlier initiatives.



Why is it a good time to promote NCA?

- **Institutional: Government capacity** from earlier initiatives facilitates implementation w/ targeted support for key institutions (e.g. NSCB & NEDA).



- **Process: broad and early involvement of Government agencies & key stakeholders** to build ownership & promote institutionalization.

The Objective of Phil-WAVES is to…

(i) Develop **macroeconomic indicators** for NC values to measure sustainability of eco. devt.

(ii) Develop **national accounts for minerals and mangroves** based on SEEA to analyze impact of diff. NR & rev. sharing scenarios on shared prosperity

(iii) Develop **ecosystem accounts for Southern Palawan and the Laguna Lake basin** to analyze trade-offs associated w/ diff. resource & ecosystem use scenarios

(iv) Build **capacity for institutionalization of prioritized SEEA modules**.

At the end of the TA, GoP & its partners will be able to…

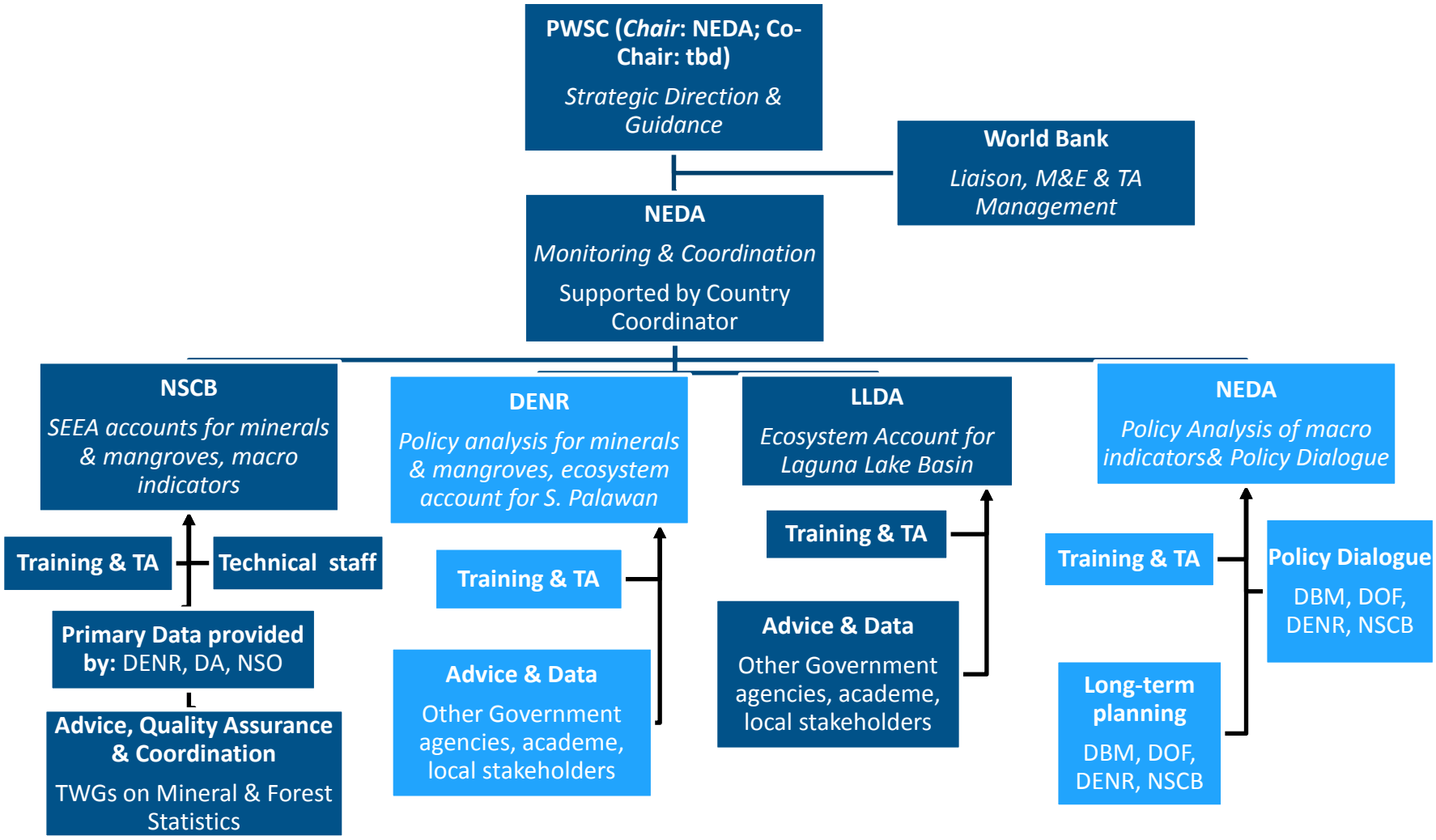
(i) Regularly **produce estimates of NC, ANS, and CW** → used by NEDA, DBM & DOF **for policy analysis & planning**

(ii) Regularly **produce prioritized SEEA modules** for minerals & mangroves → used by NEDA, DENR & DA for **policy analysis & planning**

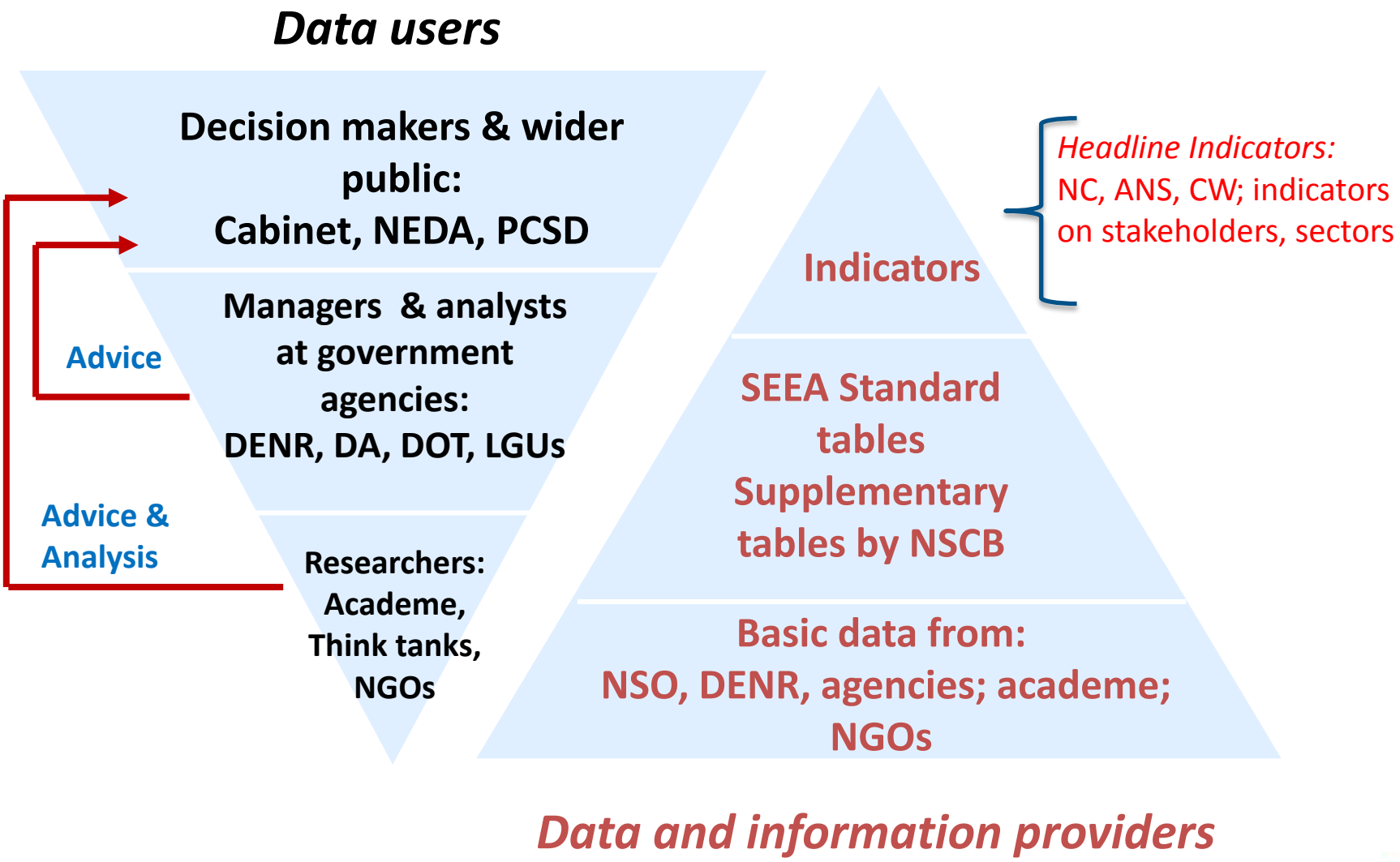
(iii) Draw policy recommendations for **possible development paths in Southern Palawan & the Laguna Lake basin** & develop a **framework for replication**;

(iv) Sustain **institutionalization of selected SEEA modules**.

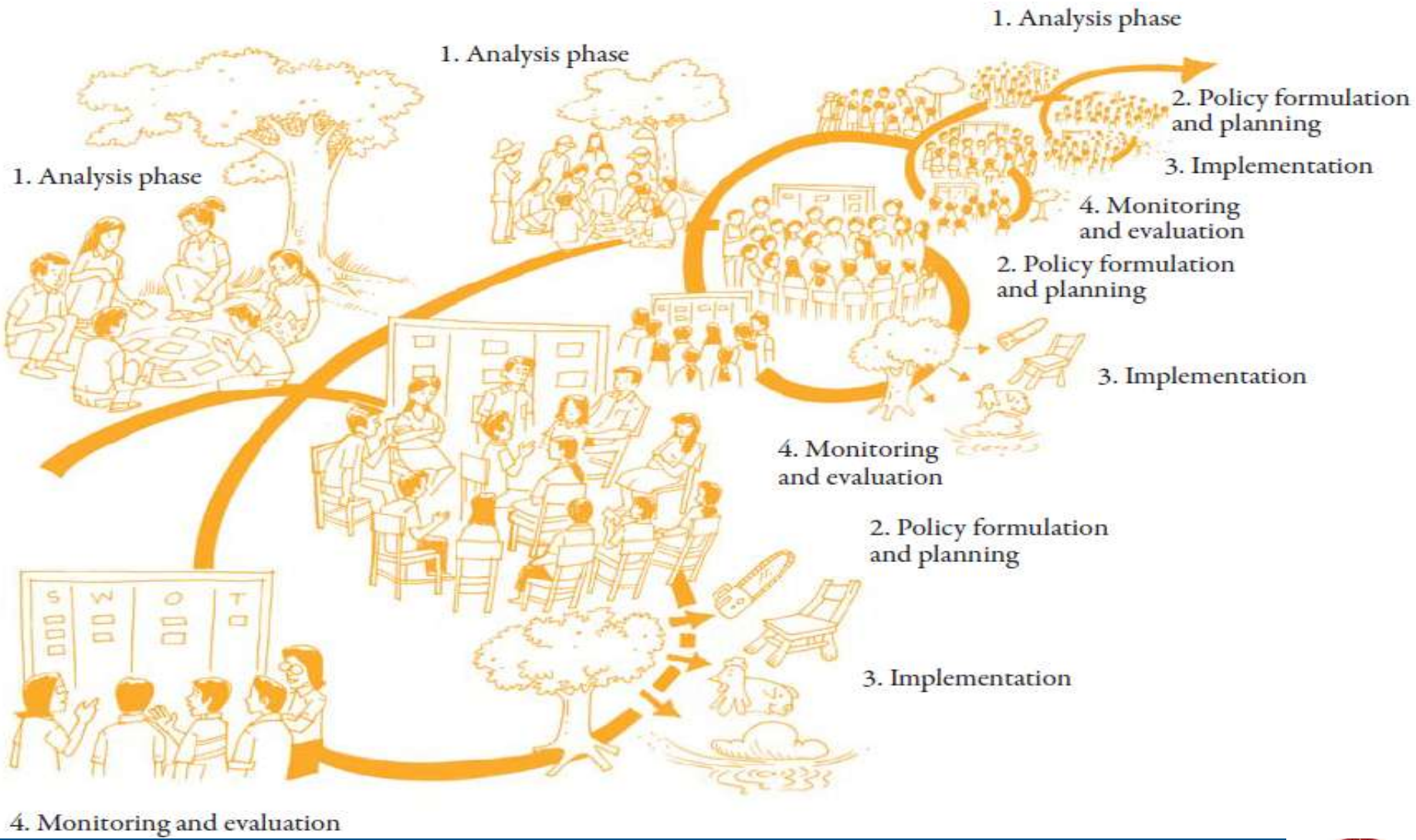
Implementation Structure of Phil-WAVES



Long-term concerted & programmatic effort



Reduced conflicts thru improved relationships


1. Analysis phase
1. Analysis phase
2. Policy formulation and planning
3. Implementation
4. Monitoring and evaluation
1. Analysis phase
2. Policy formulation and planning
3. Implementation
4. Monitoring and evaluation
2. Policy formulation and planning
3. Implementation
4. Monitoring and evaluation
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Botswana

Botswana is rich in natural resources. A combination of minerals, energy, protected areas, and crop, pastureland & non-timber forest products make the country's natural capital worth 1/3 of its total wealth.

Keen to stimulate growth, diversify its economy & eradicate poverty, Botswana has identified several options for development, including nature-based tourism, expanded mining and agriculture.

Botswana

- **Water Accounts**: Water accounts help govt. assess the availability, uses, & economic contribution of this scarce resource.
- **Land and Ecosystem Accounts**, tourism: Protected areas account for 40% land area. Accounts can help influence benefits of tourism reaching local communities & can balance land usage.
- **Mineral and Energy Accounts**: diamonds, & other mineral deposits, as well as energy accounts to help det. optimal energy mix for the future
- **Macroeconomic Indicators of SD**: indicators for natural capital & changes to natural capital (depletion/ additions), incl. adjusted net national income, adjusted savings, national wealth accounts w/ natural capital to assess long-term, sustainable growth.

Colombia

- Colombia does **stock accounts for energy & mineral resources** & **expenditure accounts** for environmental protection; **renewable resource accounting** (water, forest, liquid, gas & solid waste)
- Watersheds in the Colombian Mountains provide impt. ecosystem services: basis for crops, livestock, wood fuel, fish production & water supply, prevents erosion & regulates flooding. They are the source of water for downstream urban areas, an ecosystem service that relies on the conservation of the mountain forests & other ecosystems that guarantee water availability.

Colombia

- **Past work on ecosystem valuation:** There is a large literature on ecosystem valuation in Colombia, however, policy impacts have been limited.
- **Green accounting initiative:** A green accounting committee was established by UNDP about 5 years ago. The official statistics program is under the auspices of the National Administrative Department of Statistics (DANE). DANE is in the process of introducing environmental accounts as part of the official statistics. It has introduced stock accounts for **energy & mineral resources**, which includes **oil, hard coal, natural gas, iron, copper & nickel, & expense accounts for environmental protection**. DANE has also made some progress in **renewable resource accounting**, including **water, forest and liquid, gas & solid waste**, & in the construction of an environmental quality index for **air & water resources**.

Colombia

- **Institutional mandates and overlaps:** There are several government institutions with a mandate for ecosystem valuation. Responsibility for the valuation of ecosystem services lies with the Ministry of Environment, Housing and Territorial Development (MAVDT) and DNP, the valuation of degradation costs with MAVDT, National Planning Department (DNP), Institute of Hydrology, Meterology and Enviromental Studies (IDEAM) and (Comptroller General of the Republic) CGR; while the green GDP accounting mandate is with DANE. DNP plays a supporting role and is a cross-sectoral organization.

Costa Rica

Costa Rica has transformed from one of the world's most rapidly deforesting countries to one of the **foremost pioneers in environmental protection**. In 1997, Costa Rica became the first country to initiate a country-wide **payments for environmental services (PES)** program, compiled accounts for **forestry, soil erosion, & fisheries**.

Costa Rica

While **comprehensive environmental policies** have reversed the trend of increasing environmental degradation, WAVES will help address important questions.

Costa Rica invested a great deal in **protecting its forests,** esp. given its **tourism & watershed services.** But little is known about how much **tourism revenue** is actually generated by **forests & protected areas**, & to what extent **local communities** benefit from diff. kinds of **tourism**

Madagascar

Madagascar's unrivaled biodiversity is its biggest asset. 90% plant & animal species are endemic. Rich, unique mix of flora & fauna generates significant foreign exchange earnings, 130,000 tourists visit 6.9 million hectares of protected areas. Fisheries contribute > 2% GDP & large-scale mining 15%.

Madagascar is also one of the world's poorest countries, the country's forests & coastal zones provide essential ecosystem services that support the livelihoods of ¾ of the population.

Madagascar

Strengthen its capacity to manage its natural capital and promote sustainable development. How:

- Improve availability of data on physical & monetary values of ecosystem services & natural capital in mining, water resources, & protected areas/forests sectors.
- Facilitate the devt. of complementary macroeconomic indicators that reflect selected ecosystem services & natural capital values.
- Inform dialogue & decision making related to priority macroeconomic & natural resource issues.
  - How to tap the economic benefits of protected areas;
  - how best to distribute and use mining revenues to support development &
  - how to manage conflicting demands on water resources.

Philippines

- **Institutional analysis**: assessment of past resource accounting initiatives to identify latent capacity, bottlenecks in implementation & way forward
- Assessment of the **Phil. statistical system**
- **Macro and cross-sectoral analysis** of past uses, policy applications of envtl. acctg. & ID of current & emerging policy issues pertaining to **land based resources & terrestrial ecosystem**
- **Assessment** of studies & available data that account for stocks & flows of eco. services from **coastal & marine ecosystems**: fisheries, invertebrates, sea grasses, aquaculture, mangroves, and coral reefs in municipal & exclusive economic zone (EEZ) waters

Maraming Salamat Po / Thank you