Mobilizing ecosystem services markets in support of securing biodiversity conservation, water, and climate change management targets in the Greater Mekong Subregion.

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GMS Biodiversity Challenges

Economic development pressure
- Transportation
- Energy
- Tourism
- Agriculture

Climate change pressure
- Rising temperatures
- Increasing frequency and intensity of flooding and drought
Introduction to GMS CEP-BCI

- The CEP-BCI was established in 2006 to address social and environmental safeguards in GMS countries and support the GMS Economic Cooperation Program.
- CEP-BCI supports GMS governments and the ECP to improve both economic and environmental performance.
- The program establishes science-based environmental management targets relating to biodiversity conservation, climate change and poverty reduction and mainstreams them into development planning, management and evaluation processes.
**Impact:** To improve environmental and economic performance in the GMS

**Outcome:** Biodiversity conservation, climate change, poverty reduction, and capacity building outputs and activities are mainstreamed into the GMS Regional Economic Cooperation Program in the energy, transportation, tourism, and agricultural sectors.
CEP-BGI Approaches

CEP approach towards climate resilient development

- Strengthen national risks and vulnerability monitoring and assessment capacity
- Integrate climate change in sector planning (Energy, transport, agriculture)
- Improve local coping capacity by creating livelihood opportunities
- Strengthen regulatory functions through improved economic incentives
- Enhance ecosystem services resiliency
1. Ecosystem services are resources and processes that are provided by nature. They broadly include production of food and water, soil conservation, clean air, scenic beauty, carbon-sequestration, biodiversity conservation.

2. Payment for Ecosystem Services (PES) is a market-based mechanism to transfer payments from “service buyers” to “service providers” in return for actions taken to conserve the forest, wetland, riparian, and marine resources that provide the services in areas under economic and/or related development pressures.
Why PES as a sustainable finance tool?

1. Forest, wetland, riparian, and marine ecosystems and the valuable services they provide are under increasing pressure from economic development.

2. Demand for environmental services is increasing as supply is decreasing.

3. Government budget to support protection is low.

4. Lack of coordinated planning and assessment of trade-offs means that important ecosystem services values are unintentionally lost.

5. Local communities can protect ecosystem services and generate enough income to improve livelihoods.
Immediate challenge: Strengthening ES Markets

- Improve scientific baseline for establishing ecosystem services values and mechanism performance
- Improve policy enabling conditions
- Design and deploy ecosystem service mechanisms under varying national and sub-national conditions
Medium/long-term challenge: Mainstreaming PES investments and staying ahead of opportunity costs

- PES needs to be mainstreamed within the development planning and implementation context
- Commodity prices and opportunity costs expected to rise
- Need to increase local incomes through value-added incentives and environmental performance
- Initiate cross-sector environment planning processes
CEP Structure & approach

Environmental planning

Society mobilized

Experience and capacity built

Capacity building

NSU

government and multi-lateral agencies,
NGO’s private sector,
local communities

Decision support & EPA

Institutions strengthened

Conservation landscapes

WGE, EOC, others
Biodiversity values in the Dong Nai River Basin
Immediate Pressure

Forest Land Conversion
Forest Conversion Pressures from Cashew

Legend
- Focal areas
  - Known
  - Unconfirmed
  - Predicted
  - Possible
- Percentage of planted area by district
  - 0 - 0.05
  - 0.06 - 0.1
  - 0.1 - 0.2
  - 0.2 - 0.26

Legends (cont.)
- Dong Nai River Basin
- Conservation Landscape
- Provincial boundary
- Main roads
- Water bodies

Phase 3
Phase 2
Phase 1
CAMBODIA
Pilot Sustainable Finance Options in Lam Dong Province to be supported by ARBCP

1. Hydropower PES Payments
2. Water Supply Co. PES Payments
3. Nature-based Tourism Fees and revenues
4. Sustainable Bamboo Sector Value Chain Development
Cost-Benefit Analysis

Establishes that technical and financial support for bamboo development can provide sufficient benefits for providing watershed ES.
• Result: Da Nhim HP station would lose $3.75M/yr in added operating and plant costs if 45K ha pine forests converted to agricultural purposes.
Forest Area under Protection
Transfer mechanism

PES Buyer: Hydropower
$2.7M committed

Across Province

PES Seller: Federal Forest Protection & Development Fund

PES Buyer: Water Supply Com.
$0.63M paid

Within the same province

PES Seller: Provincial Forest Protection & Dev. Fund (FPDF)

Controlled by FPDF Board

PES Provider
Local Communities

PES Provider
National Parks

Transparent Monitoring
PES Outcomes in Lam Dong

1. Payment rates in watersheds: Da Nhım and Dai Ninh (270,000-290,000 VND/ha/year)
2. Total area protected: 203,335 ha
3. 8,022 households paid for forest protection (5,828 ethnic minority households)
4. Average payment: 8.1-8.7 mil VND/year ($438-470/year for 30 ha/household)
5. Previously, payment was: 3 mil VND/year (Increased incomes by 2.8 times)
6. Fifty percent decrease in number of reported cases of illegal logging
Mainstreaming PES/REDD – development of a policy feedback loop

1. Identify pressures and steps needed to reduce environmental impacts
2. Identify/compare ES values and opportunity costs
3. Complete legal and policy needs assessments
4. Design/implement payment mechanisms
5. Identify dissonance in land-use plans and tenure systems - set guidelines for working through it
6. Monitor, evaluate, and adjust based on results
7. Generate value-added processing opportunities
8. Mobilize/coordinate partners/different approaches
9. Identify regional synergies and ways to further increase returns to investment or reduce risks
Future Outlook

CEP-BCI phase II development

– Consolidate conservation landscapes in the economic corridors in Cambodia, Laos, and Thailand
– Mobilize public and private sector investments/improve management performance and rate of return on investment, such as:
  • Climate resilient investments
  • Ecosystem services investments — Power and water utilities, tourism
  • Energy conservation and promotion of renewable energy
  • Water quality – Avoided filtration
  • Experimental fiscal mechanisms - establish water pricing in agriculture systems
  • Improving transportation efficiency through development of improved value-added processing opportunities in the forestry sector
Thank you