

A sunset scene over Manila Bay. The sky is a gradient of orange and red, with a bright sun low on the horizon. Several boats are silhouetted against the water in the foreground and middle ground.

Manila Bay Environmental Management Project: Challenges and Achievements

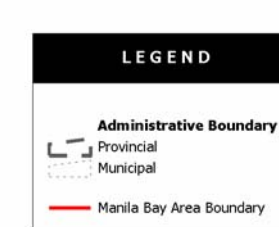
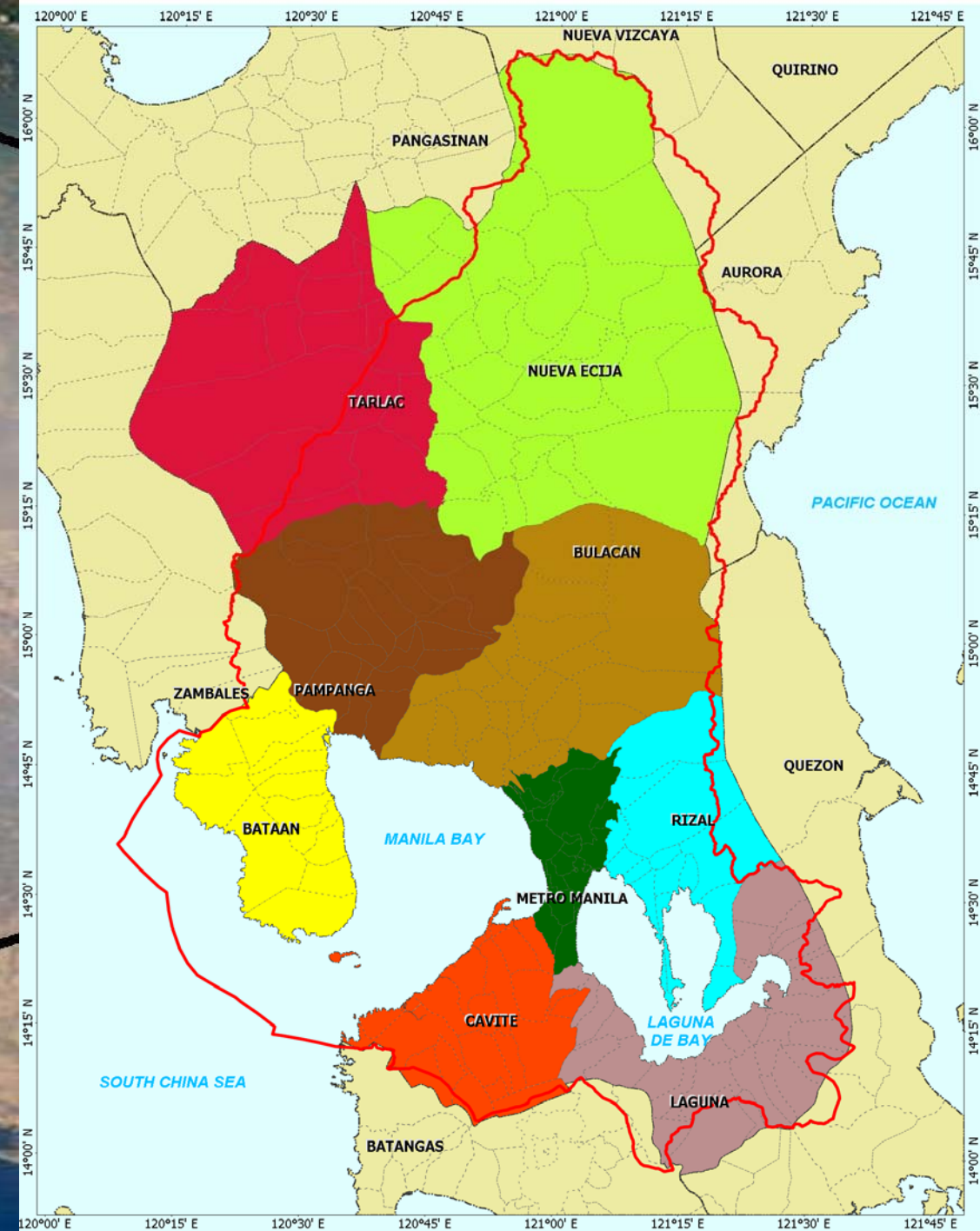
マニラ湾環境管理プロジェクト：
課題と実績

Manila Bay Watershed Area

マニラ湾流域圏

Bay Area : 1,800 km²
Coastline : 190 km
Watershed Area : 17,600 km²
Catchment Areas : 26
Rivers & Creeks : 131

Home to 25 million Filipinos



ADMINISTRATIVE MAP



Universal Transverse Mercator - Zone 51 (N)
Luzon 1911

SCALE 1:950000

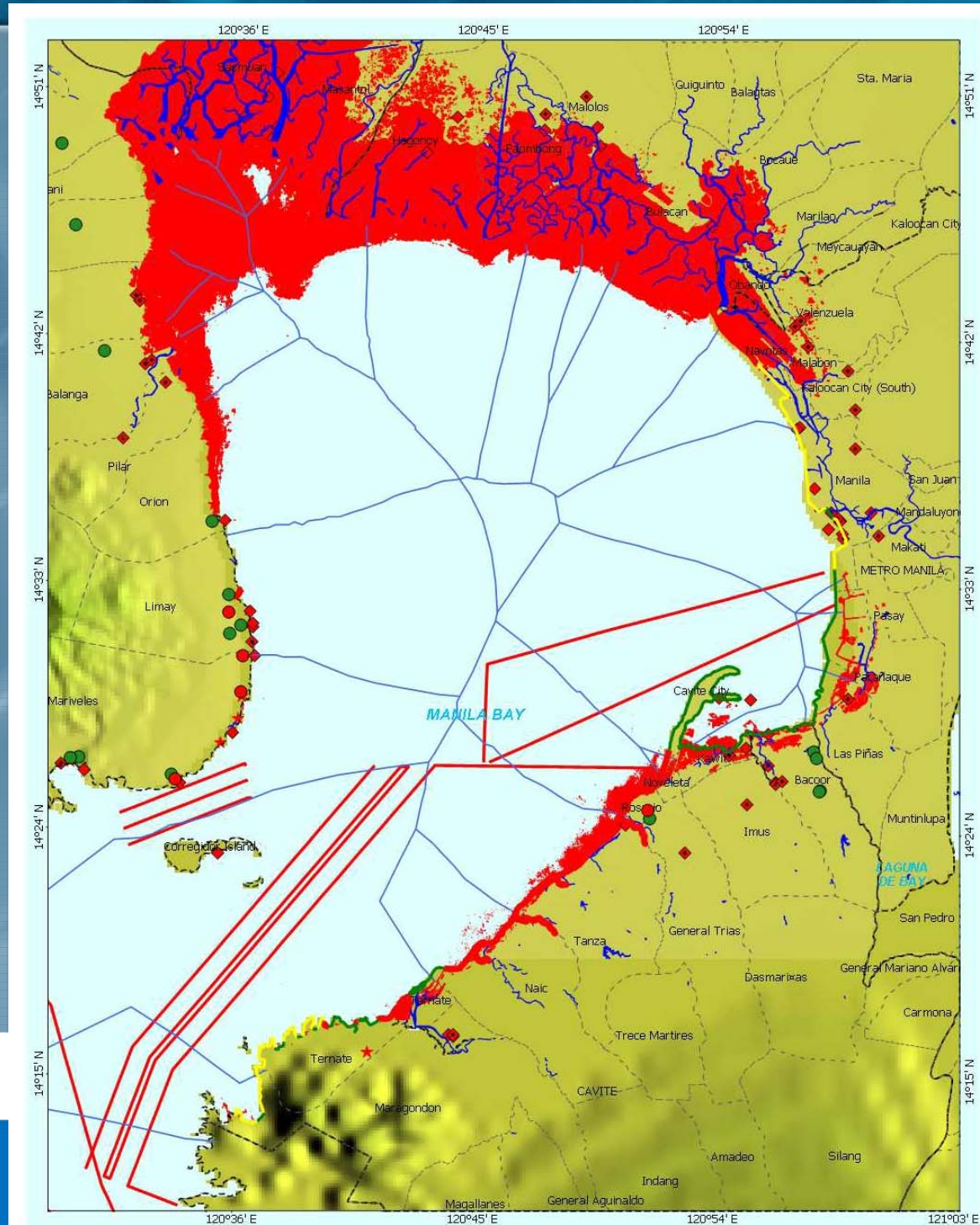


Source: NAMRIA Topographic Map Scale 1:50000

Note: Administrative boundary should not be used for settlement of existing boundary conflicts.

The challenges: 課題

- ❁ Multi-stakeholders
- ❁ Multi-jurisdictions
- ❁ Conflicting uses
 - Shipping/ports
 - Industry
 - Tourism
 - Fisheries/aquaculture
 - Social/cultural
- ❁ Poverty



Threats to Sustainable Development

持続可能な開発に対する脅威

- ❖ Uncontrolled development
- ❖ Natural/manmade hazards
- ❖ Habitat destruction
- ❖ Illegal/destructive fishing
- ❖ Pollution



The Cost: マニラ湾の価値

MBA contributes 52.5% of the country's GDP.
マニラ湾沿岸域: フィリピン国全体の52.5%に貢献

Valuation of key coastal habitats and uses (環境が生み出す価値)

- * mangroves
- * coral reef
- * fisheries & aquaculture
- * ports & shipping
- * tourism

PhP 8.3 billion
= 約184億円

Valuation of environmental damages (環境悪化による経済的ダメージ)

- * Loss of mangroves
- * Impacts on human health and economy due to:
 - water pollution
 - salt water intrusion
 - Red tide

PhP 4 billion
= 約9億円

Some useful tools: 効果的な手段

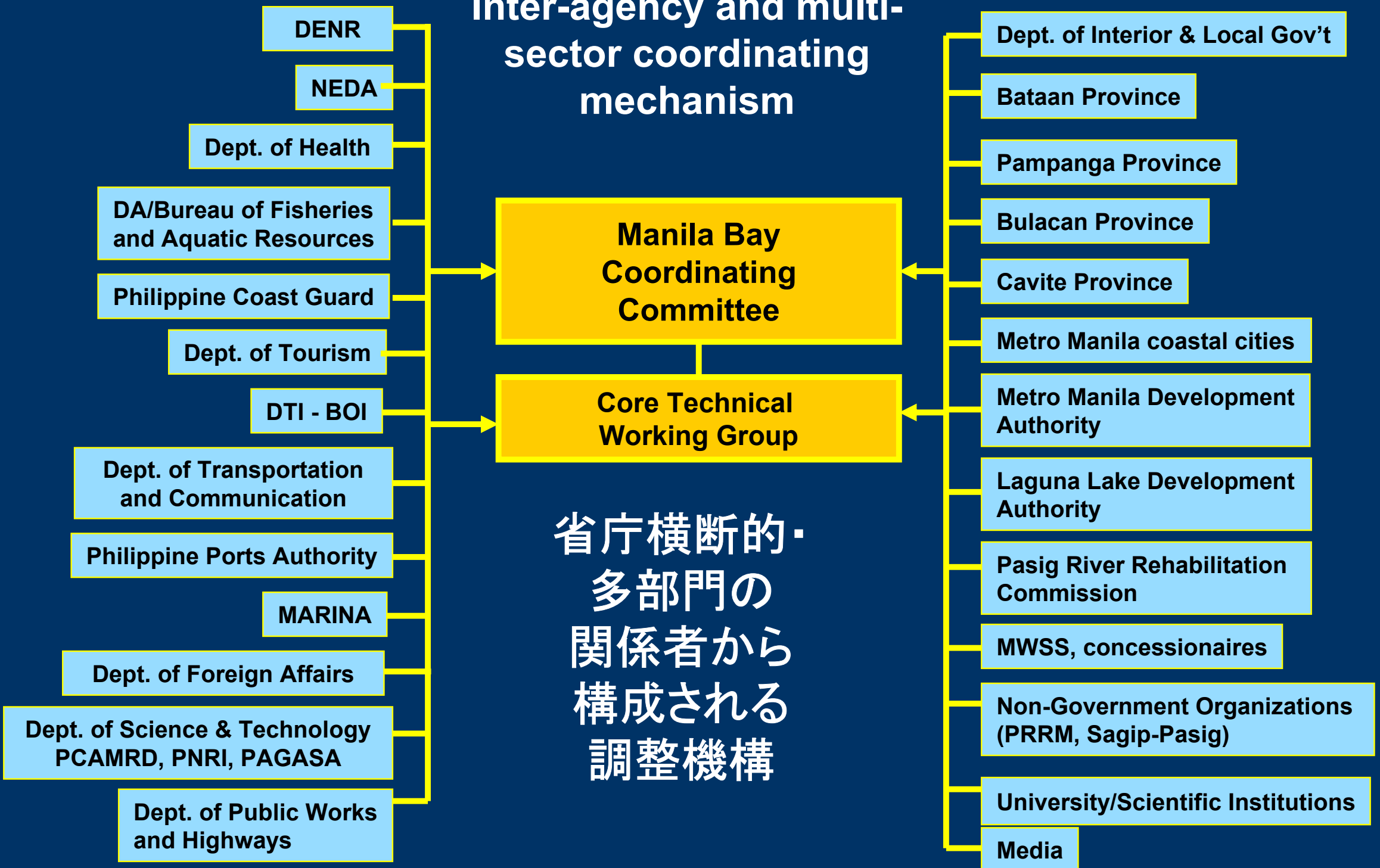
- ❖ Interagency, intergovernmental, multi-sectoral coordinating mechanism 省庁横断的・多部門の関係者から構成される調整機構
- ❖ Partnerships
- ❖ Information management system/network
- ❖ Communication/mobilization
- ❖ Common vision and strategy
- ❖ Environmental risk assessment
- ❖ Resource valuation/damage assessment
- ❖ Integrated environmental monitoring



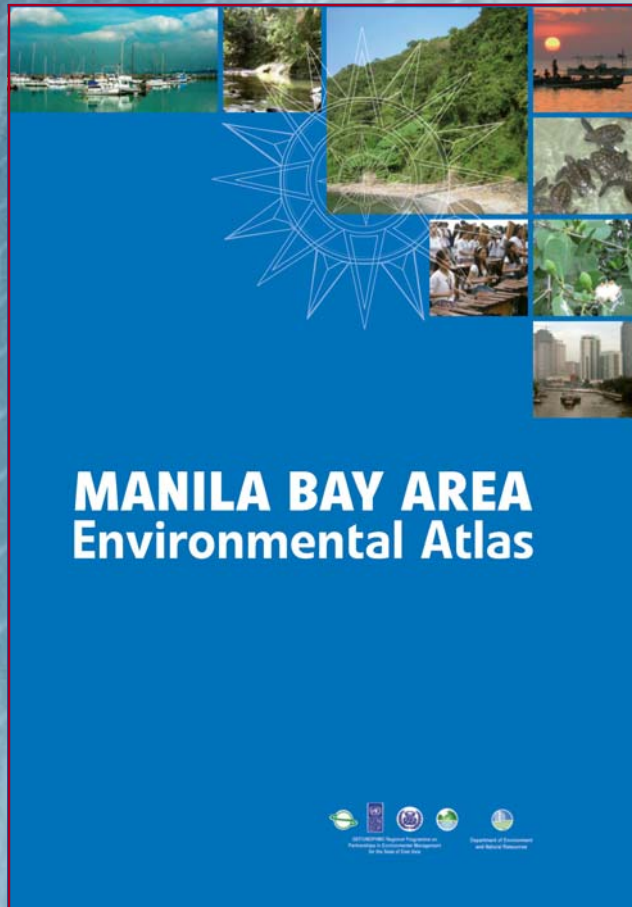
Integration and Partnerships

統合とパートナーシップ

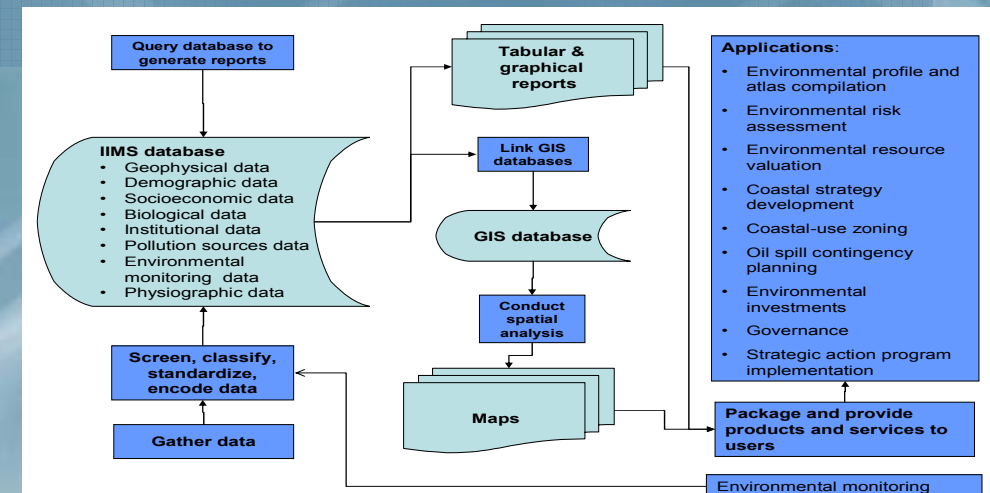
Inter-agency and multi-sector coordinating mechanism



Information management 情報管理



- Integrated information management system
- Information networking/data sharing



Communication/mobilization コミュニケーション/市民の参画

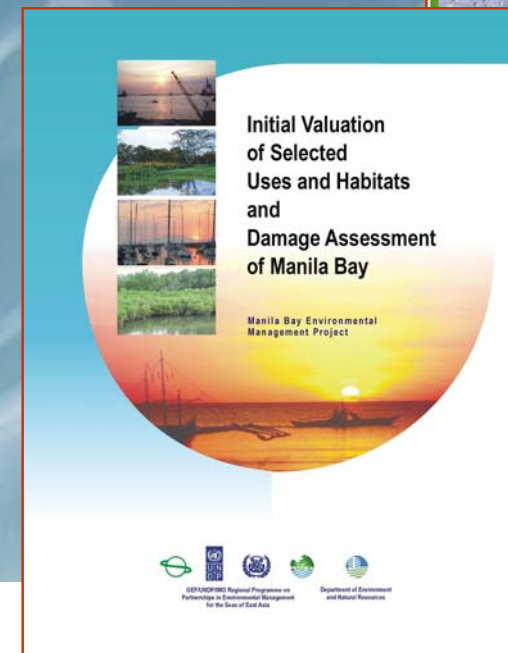
- ❖ Communication strategy/plan
- ❖ Coastal/community events and activities (clean up; tree planting; recycling; adopt a stream)
- ❖ Focused projects (youth participation in coastal cleanup/environmental camps; painting and poetry; videos; lectures)
- ❖ Community engagement (project planning and development monitoring and reporting; micro-financing)



Scientific input to decision-making

意思決定のための科学

- ❖ Collation and analysis of available scientific data
- ❖ Delineation of priority risks (physical; social; environmental; economic)
- ❖ Management options/impacts
- ❖ Monitoring, evaluation and reporting
- ❖ Integrated environmental impact assessment



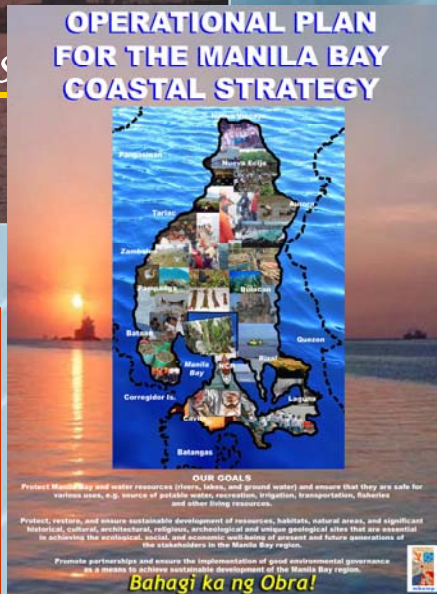
A common vision and strategy across the Bay マニラ湾全体をカバーする共通のビジョン・戦略

Manila Bay Coastal Strategy and its Operational Plan

Manila Bay Operational Plan (short
and medium-term targets)

- *Partnership and governance*
- *Pollution reduction*
- *Restoration and protection of habitats,
resources, historical and cultural sites*

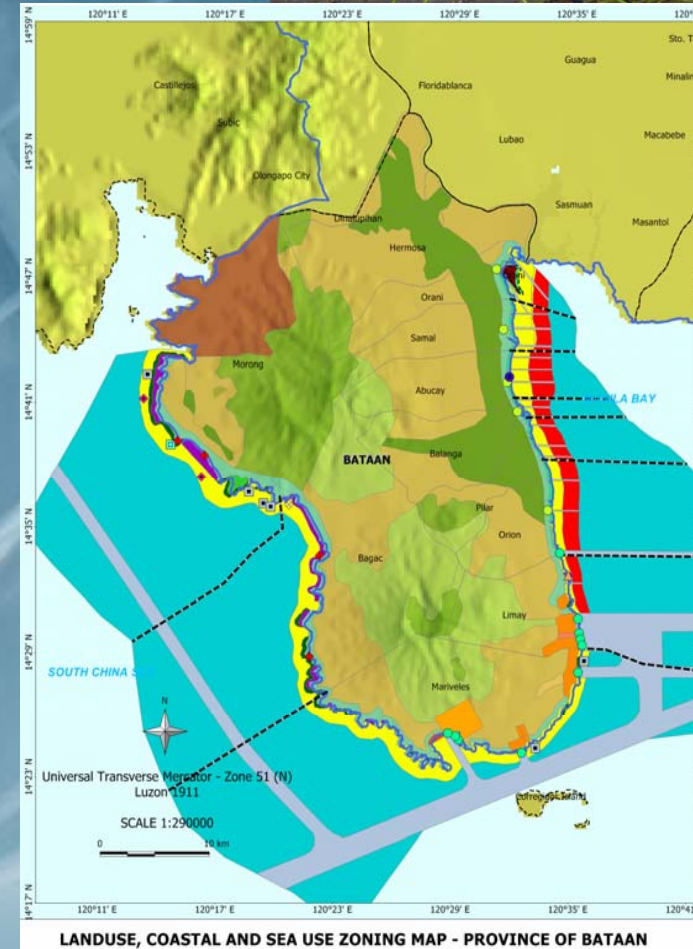
✿ ICM implementation in two coastal
provinces w/complementary
strategies



Selected outcomes

主な実績

- ❖ E.O.533: National strategy for sustainable development of marine and coastal resources through ICM
- ❖ Manila Bay Coordinating Council
- ❖ Pampanga River Basin Master Plan
- ❖ Pasig River pollution reduction: sewerage investment
- ❖ Land- and sea use zoning plan (Bataan Province)



Selected outcomes

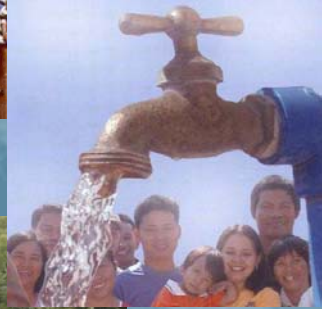
主な実績

- ❖ Hazard management: oil spill contingency plan
- ❖ Habitat and resources restoration: Cavite, Bataan, Pampanga Parañaque-Las Piñas
- ❖ Coastal fisheries: anti-illegal fishing campaign
- ❖ Public-Private Partnerships: Bataan, Cavite



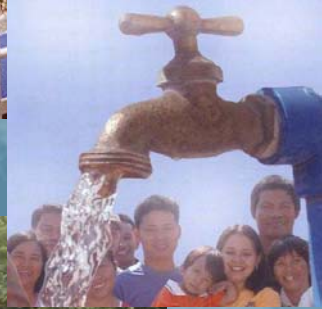
The way forward (2008-2011) 今後

- ❁ Pollution reduction in Marilao-Obando-Meycauayan River system and Pasig-Laguna de Bay watershed
- ❁ Restoration of fisheries
 - Moratorium on commercial fishing
 - Restoration and rehabilitation of mangroves and seagrass in strategic locations
- ❁ Adaptation to sea level rise in vulnerable coastal areas thru ICM
- ❁ Water conservation and management in the Pampanga River



The way forward (2008-2011) 今後

- Scaling up ICM to cover the entire coastline of Manila Bay (4 provinces and the National Capital Region)
- ICM Code and Recognition System (Batangas/Bataan Provinces)
- State of Coasts Reporting System
- Port Safety, Health and Environmental Management Code and Recognition System (Philippines Port Authority)



PEMSEA (2008-2011) の今後の活動

❖ Capacity development 能力開発・人材育成

- ICM model courses
- Training-of-trainers
- National Task Force
- Special skills (risk assessment; IIMS; State of Coast reporting; land- and sea-use zoning; resource valuation; ICM Code; PSHEM Code)

❖ Partnering/Networking

- Local governments
- Corporate sector responsibility
- Scientific input (Regional Centers of Excellence; Learning Networks)
- Twinning arrangements
- Network of Local Governments
- EAS Congress 2009

❖ Sustainable Financing

- Public-private partnerships
- Investment plans for pollution reduction
- Innovation approaches to revenue generation
- Partnership Investment Fund for pollution reduction



Opportunities for partnerships

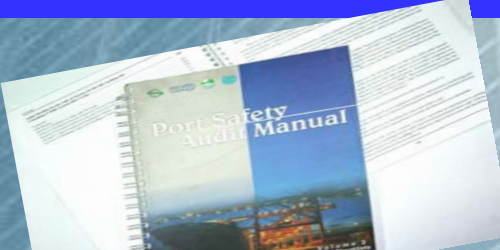
参画の機会

- ❖ Capacity development 能力開発・人材育成
 - MPA development, management and networking
 - Integrated river basin management
 - Habitat restoration (seagrass; coral reefs)
 - Coastal fisheries management
 - Disaster management
 - Water use and conservation
 - Oil and chemical spills
 - Sensitivity/vulnerability mapping
- ❖ Partnering/Networking パートナー・ネットワーキング
 - Total allowable pollution loading
 - Adaptation to climate change through ICM
 - ICM Code and PSHEM Code
- ❖ Sustainable Financing 持続的な資金メカニズム
 - Innovative policies, technologies, processes, and services in support of pollution reduction and environmental conservation
 - Public-private partnerships






THE PSHEMS TECHNICAL SUPPORT SERVICES : WHAT IT OFFERS 港灣の安全・健康及び環境管理システム



□ PSHEM Code: 港灣の安全・健康・環境管理システム規準
A voluntary standard that enables the ports to measure the performance of its operations with regard to quality, safety and health of port workers and protection of the environment.



トレーニング教材 PSHEMS training modules
To enhance capacities of PSHEMS project teams and port personnel to support the establishment and implementation of PSHEMS.



□ Port Safety Audit Manual 監査マニュアル
Assists the internal and independent auditors in identifying the strengths and weaknesses in port regulations, policies and practices



港灣の安全・健康・環境管理システムガイド □ PSHEMS Guide
Provides a step-by-step process on establishing and implementing the PSHEMS

□ PSHEMS Auditors 港灣の安全・健康・環境管理システム
監査員
Assists ports in assessing the performance of its PSHEMS

港灣の安全・健康・環境管理システムの認定 □ PSHEMS
Recognition Services
To recognize ports who have successfully implemented the PSHEMS

ISO 9001

ISO 14001

OHSAS 18001

Thank you!
ありがとうございました



Partnerships in Environmental Management
for the Seas of East Asia

