

**ICM: concept, method and application for achieving sustainable coastal development**  
**統合沿岸管理—沿岸の持続可能な開発を達成するための概念・手法及び応用**

Lecture series (2008, Japan)

1. ICM: Relevance, concept and sustainable coastal development framework (SCDF) (June 19).  
 統合沿岸管理: 関連性・概念および沿岸の持続可能な開発枠組み (6月19日)
2. The ICM cycle, ICM code and State of Coasts Reporting (June 26)  
 統合沿岸管理サイクル・統合沿岸管理コードおよび沿岸状態の報告 (6月26日)
3. ICM: Information gathering, analysis and use (July 3)  
 統合沿岸管理: 情報収集・分析および利用 (7月3日)
4. ICM application, case studies and scaling up (July 10).  
 統合沿岸管理応用および拡大化 (7月10日)

ICM lecture series No.3 (2008)

**ICM: Information gathering, analysis and use**  
**統合沿岸管理：情報収集・分析および利用**

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**Contents (内容)**

- Purpose of information
- Information gathering through stepwise process of ICM development and implementation cycle
- Analysis of information: rapid appraisal, risk assessment coastal profiling and integrated planning (e.g. coastal zoning)
- Integrated Information Management System: development and application for coastal management.

**ICM information for decision makings**  
**統合沿岸管理の判断材料**

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    graph TD
      Inputs[Historical data, Literature, Stakeholders views, Actual measurements] --> DM(Decision Maker)
      DM --> Outcomes[Faster decisions, Better decisions]
      DM --> DP[Decision problem]
      subgraph DP_Box [Decision problem]
        ES[Existing State] --> Q[?]
        Q --> DS[Desired State]
      end
      ICM(ICM system) --> Q
      ICM --> DS
  
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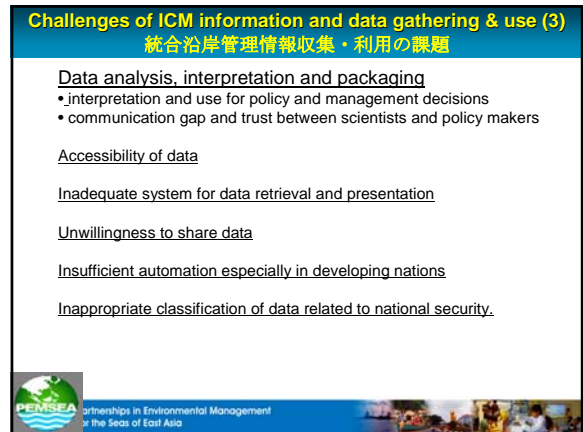
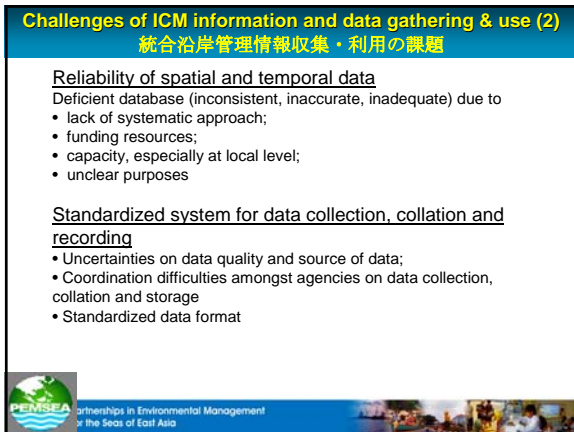
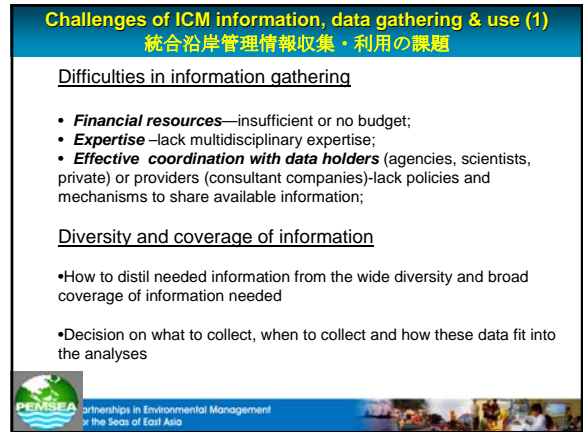
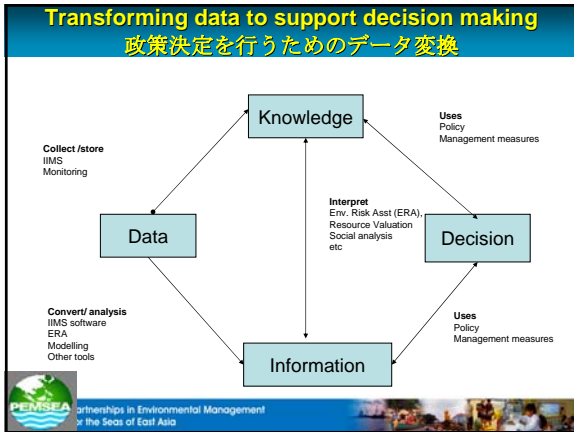
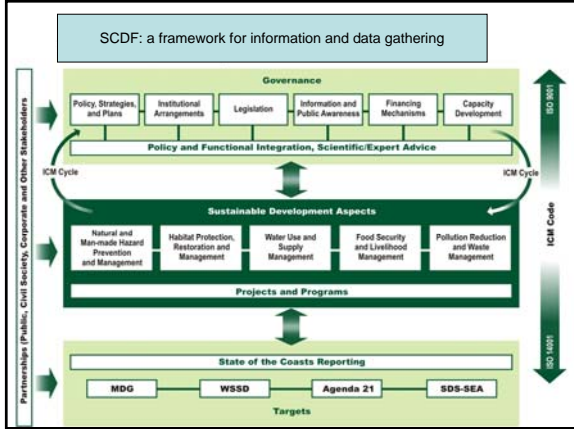
**Decision makings process (意思決定プロセス)**

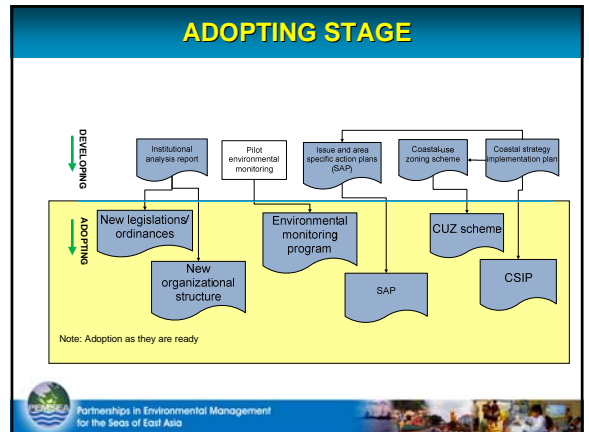
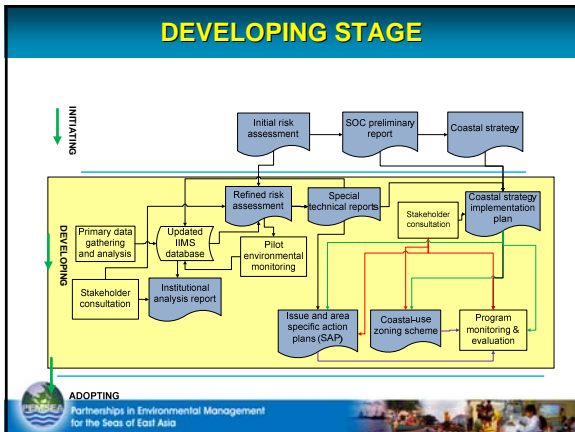
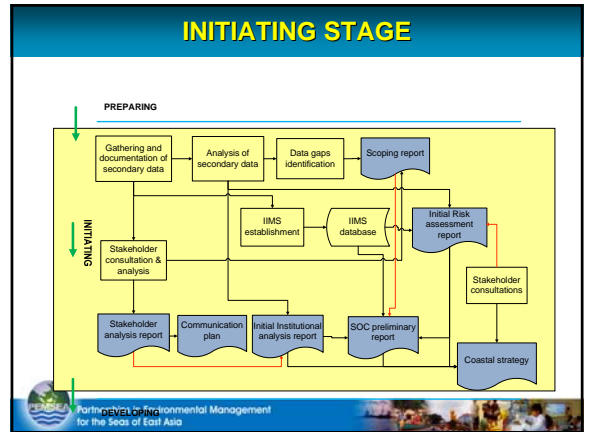
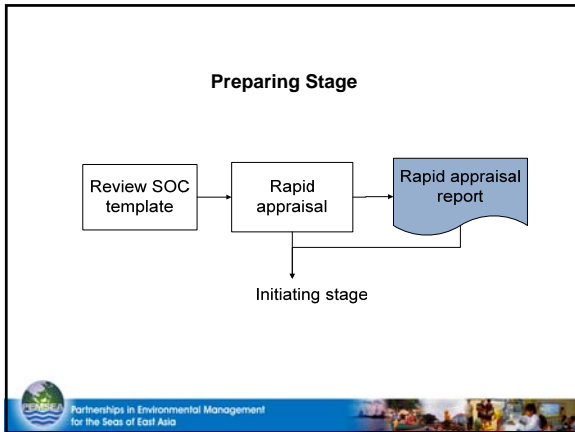
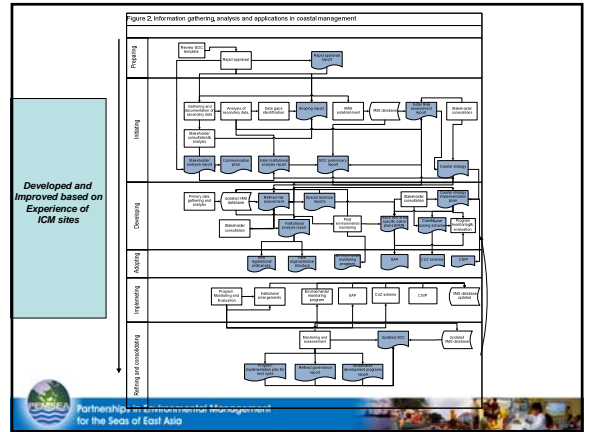
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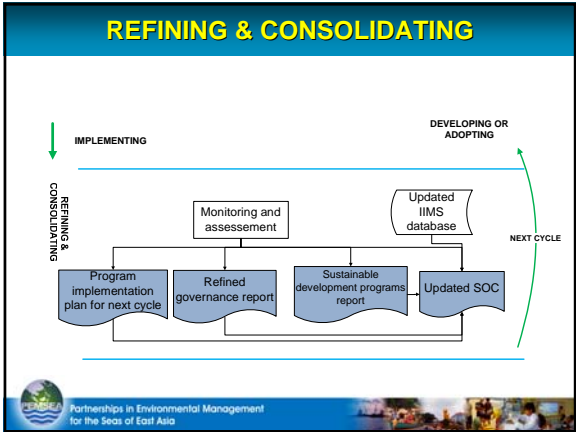
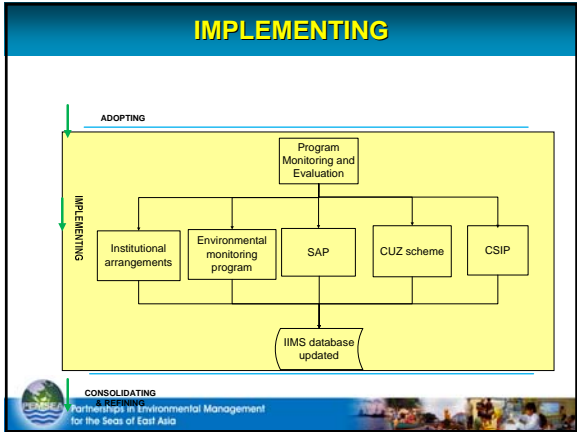
    graph TD
      UI[uncontrolled inputs] --> DM[Decision Making]
      subgraph DM_Box [Decision Making]
        SM[System model]
      end
      SM --> CI[Controlled Inputs (decision variables)]
      CI --> CS((Coastal System))
      CS --> SO[System Outputs (Responses)]
      SO --> FB[Feedbacks (Observations of system outputs)]
      FB --> SM
  
```

**ICM information needs (統合沿岸管理情報ニーズ)**

- ICM needs accurate, updated spatial and temporal information for policy and management decisions;
- ICM information needs are inter-disciplinary across various socioeconomic, political, environmental and other technical dimensions
- Large amount of data are available with specialized agencies and concerned stakeholder groups;
- The SCDF provides the nature of information required;
- The ICM cycle ensures a systematic process to gather both secondary and primary database at each stage;
- Adequate understanding of the SCDF and ICM cycle determines the cost-effectiveness in data gathering and their uses.



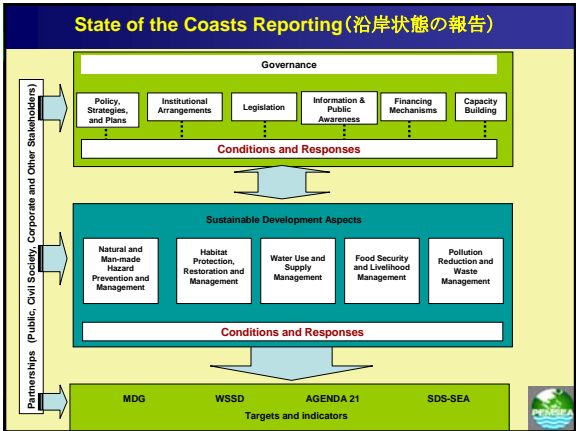
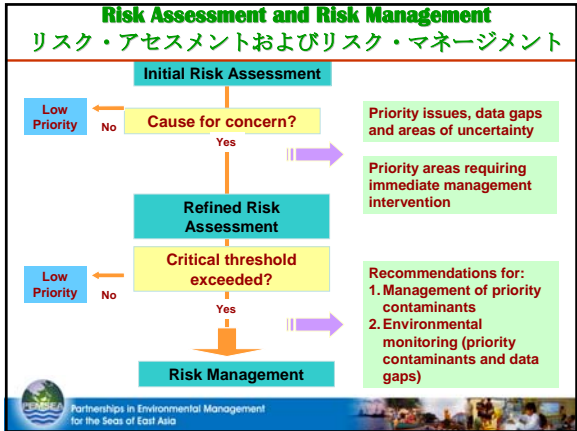
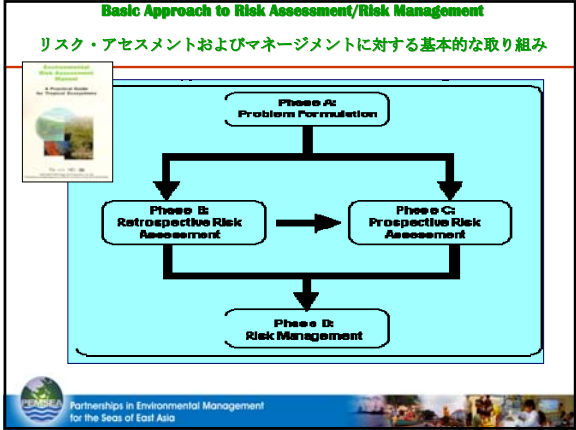


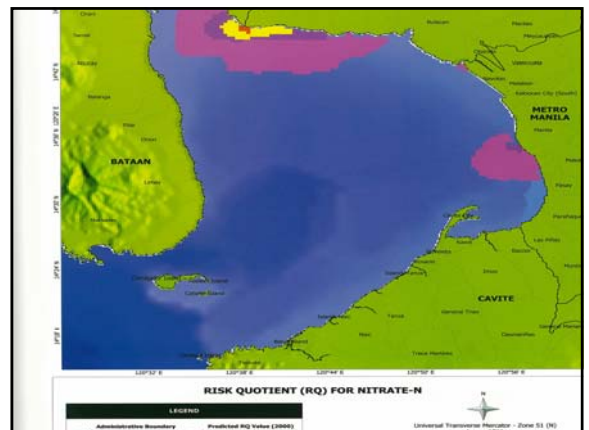
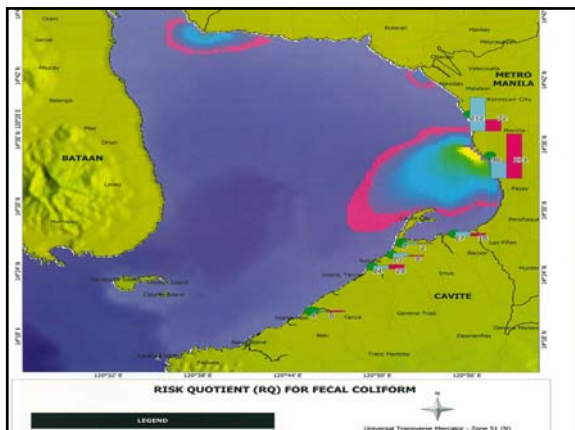
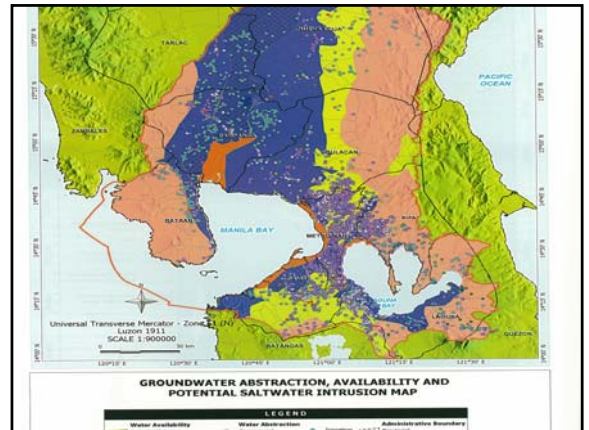
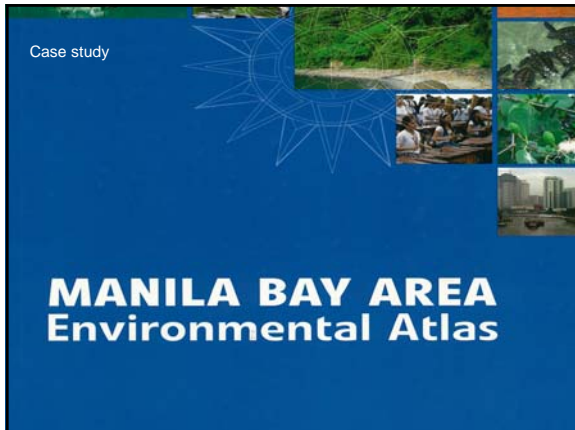
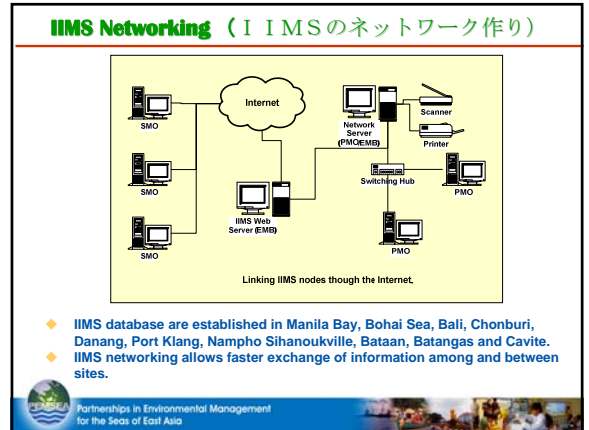
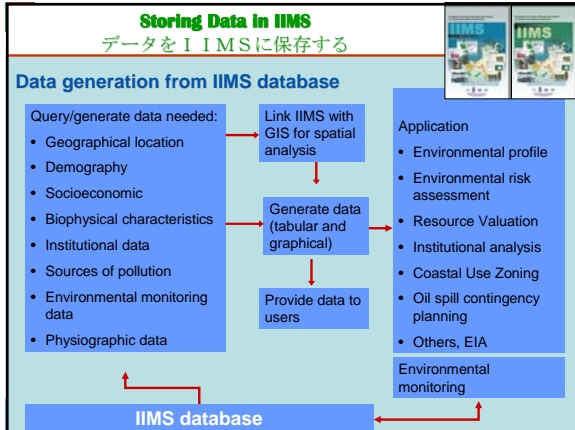


### Essential ICM information generating tools 不可欠の統合沿岸管理情報収集ツール

Essential ICM information generating tools

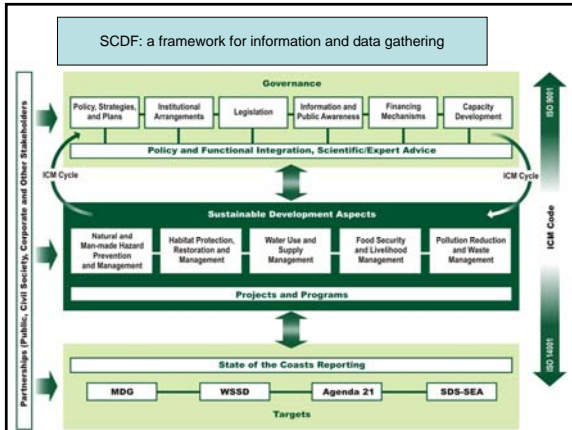
- SCDF – coverage, disciplines
- Risk Assessment – level of health, ecosystem and society risk, prioritization
- IIMS – data storage, retrieval and modelling
- SOC – monitoring targets, objective against indicators
- Other specific tools (resource evaluation, hydrodynamic modelling, rapid appraisal, stakeholder analysis, communication plan, etc)











**Thank you**