Program for Source to Sea Session at EAS Congress 2018
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CO-CONVENERS: UNDP, FAO, PEMSEA

SESSION 2: Catalyzing Improved Source-to-Sea (S2S) Governance, Management and Investment in East Asia and Southeast Asia

Innovations in technology and integrated management solutions:

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Development path under Business as Usual:

- Destructive effects coming from the uncontrolled development
- Unbalanced valuation of ecosystem services and distribution of wealth.
- Unsustainable production and over-usage of potentially limited available resources
- Environmental degradation and destruction.

Development path under Circular, Sustainable Economy

- Valuation, development and integration into the balance sheets of government, corporations and economies of:
  - Environmental values
  - Sustainable development of biodiversity in the country
  - Distribution of wealth
  - Health care and health status of the population
  - Educational level of the population
  - Social stability and security
  - Scientific achievements and knowledge
  - Full employment, income and wealth generation for the population to enable appropriate, safe livelihood and secure development of each family.
  - Level of positive national and intercultural communication & cooperation
Investment Barriers

Main investment barriers have been identified as follows:

• Cost
• Affordability
• International competition
• Limited available funds
• Insufficient cost recovery mechanisms

• Lack of investment and financing interest due to:
  – Insecure investment environment
  – Corruption
  – Unsecured investment recovery mechanisms
  – FOREX exchange risks
  – Limitation of repatriation of investments and profits
  – High local interest rates and inflation

• Vested interests
• Decision makers have other priorities
• Short term profit orientation without considering externalities (economic & ecological factors)
• Limited to sector and company oriented thinking and business practice without considering effects on related interdependent sectors
• Limited coordination and leadership to develop & implement problem solving solutions

• The question is how to change this?
Philosophy

Cycles of Sustainability

Development *with* Returns
*and strong social commitment*
Holistic Integration

Pollution Reduction through Renewable Energy i.e. Solar, Wind & Biomass residues

Water Treatment

Solid waste Management through maximum Recycling

Reduction of Greenhouse Gases

Integration of Renewable Energy & Power Production from:

- Solar & Wind
- Hydro
- Waste
- Biomass
- External biomass
- Energy saving systems

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Creating “Self-Financing” Development Structures

- Solid Waste (partially)
- Renewable Power generation
- Reforestation

**Self Financing Structure:** “A self financing structure” under our definition here is achieved if the project achieves a bankable finance structure through generation of sufficient cash flows derived from Product sales and/or Fee generation and/or eventual subsidies provided throughout the project life. The funding structures must be based on affordable fee structuring.

Development samples have been proposed and presented as follows for the following issues:

- Water/Sewer/Recycling/Hydro + integration of economical enhancement components
- Solid Waste full recycling model / combination with sewerage
- Reforestation Model
- Applying central sewer outfall Interceptor development Model for sewerage handling
- Generally cost savings and efficiency increase though creation of synergy effects
Generic Project Development Flow Chart Main Steps

Rapid Assessment RB and Identification of potential Pilot Projects

Key Focus on: "Life" Pilot Project Development

- Solid Waste Project
- Sewerage Treatment Project
- Water Resource Management incl. optional Hybrid Pump Hydro & Solar Development

Balancing Interests of: Government Private Public Finance

Embedded & sustained Project Structures:

- PPP Inclusive Growth Funding Structure
- Transparent Check & Balance Mechanism
- Strictly Sustainable Development Principle & Gender Equality
- Establish Best Practise Templates for Scale up and Replication

Neutral Project Preparation Fund

- Project Preparation with Options for Stakeholder Review and Government Approval
- Partner Selection (EPC/PPP) Construction Operation

- Project & Template Documentation
  - Monitoring
  - Training
  - Knowledge Building
  - Replication
  - Research & Innovation
  - Benchmarking

- Develop Improved Policies & Legislation

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Project Development Flowchart (Example – Cambodia)

**Integrated Development Chart - CAMBODIA -**

- Quick Baseline Assessment
  - Context Mekong
  - Context Cambodia

**Integrated Water Resource Development**
- Sustainable Reforestation & Watershed protection
- Organic / Sustainable / Innovative Agriculture
- Sustaining Biodiversity of Ecosystem (i.e. fish ledders)
- Technical Review of Design, Construction, Operation & Management of existing Hydro Dev. to expand to hybrid Pump+Hydro - Solar project

**Water Supply & Sewerage System Development**

**Full Recycling Solid Waste Management**

**Equitable Sharing of Added Value Generated through Projects**
- Inclusive Growth Finance & Investment Structure
- From Subsidy to Income generating & sharing Investment & Shareholding for local People affected
- Developing Integrated Development Proposal based on PPP inclusive Growth Model

Through permanently embedded, transparent - Check & Balance - Monitoring - Knowledge Building Structure
THANK YOU!