















Program for Source to Sea Session at EAS Congress 2018 Iloilo Convention Center, Iloilo, Philippines

27. November 2018 Session Rm. 4, 15:45 - 17:45 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:

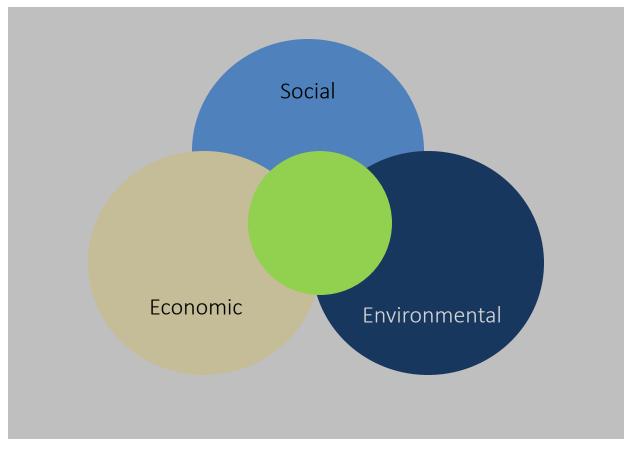
- Cost
- Affordability
- International competition
- Limited available funds
- Insufficient cost recovery mechanisms
- Lack of investment and financing interest due to:
 - Insecure investment environment
 - Corruption
 - Unsecured investment recovery mechanisms
 - FOREX exchange risks
 - Limitation of 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 (economical & 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

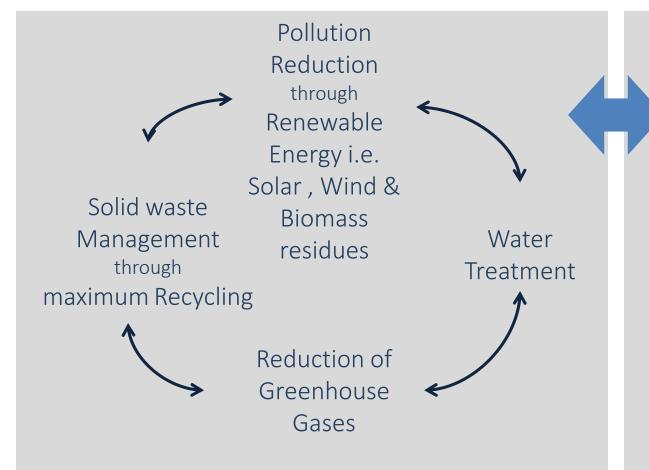


Development with Returns and strong social commitment



Holistic Integration





Integration of
Renewable Energy
& Power Production
from:

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







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

Rapid Assessment RB and Identification of potential Pilot Projects **Neutral Project** Key Focus on: "Life" Pilot Project Development **Preparation Fund** Generic **Project Balancing Interests of: Project Preparation with** Solid Waste Government Development **Options for Stakeholder Project** Private ← **Review and Government** Flow Chart Public Approval **Finance Main Steps** Sewerage Partner Selection **Treatment Embedded & sustained** (EPC/PPP) Project **Project Structures:** Construction Operation Water Resource **PPP Inclusive Growth** Management **Funding Structure** - Project & Template incl. optional Documentation **Hybrid Pump** - Monitoring Hydro & Solar Transparent Check & - Training Development **Balance Mechanism** - Knowledge Building - Replication Strictly Sustainable - Research & Innovation Development - Benchmarking Principle & Gender Equality **Establish Best Practise Develop Improved** Templates for Scale up ← Policies & Legislation and Replication

Project Development Flowchart (Example – Cambodia)

