

Resource Recovery and Reuse in Industrial Sector

Through Policy and Incentives in Economic Zones

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Economic growth and environmental challenges

Rapid Growth...

- Average GDP growth of 6.20% in the last 10 years
- 7.24% GDP Growth in 2016-17
- Manufacturing sector grew by 11.69% during 2015-16
- Exports at the level of USD 34 Billion, with growth of 9% in 2015-16
- Foreign Investment of USD 2.2 Billion in 2015, growing by 46% from last year

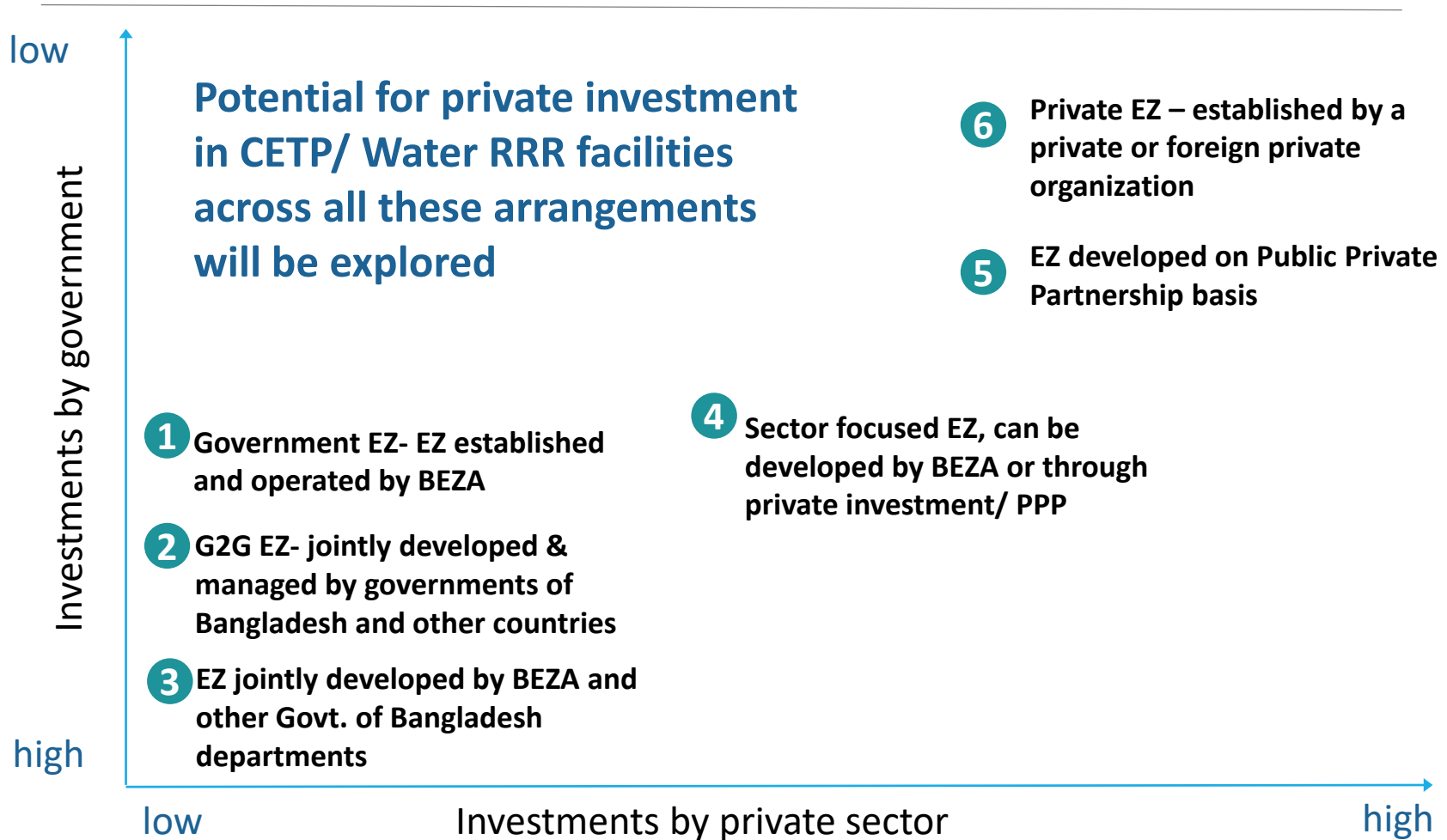
...accompanied by environmental challenges

- Water quality issues in major rivers, especially around Dhaka
- Overreliance leading to depletion of water table
- Industrial effluents contaminating ground water and surface water resources

Data sources: Bangladesh Economic Review 2016, Bangladesh Agriculture Development Corporation (2011)

Rapid, unplanned industrial growth will lead to an environmental crisis- unless there is a focused policy and regulatory response

Range of arrangements for EZ development



Encouraging Private Investment for waste water/ effluent treatment in Economic Zones

1 Tax Incentives for operations in the EZ

- Income tax exemption (from 100% in 1st year to 20% in 10th year)
- Exemption from import duties, regulatory duties and VAT on import of machinery and material

2 Viability support strategies

- Possible Viability Gap Grant
- Standardized tariff policy
 - Effluent treatment
 - Sale of recycled water

3 Demonstrating success

- Project for CETP and Water RRR facility on PPP basis under development in **Mirsarai 2a EZ**

5 Other financial schemes

- Refinance scheme of Bank of Bangladesh for environment friendly sectors (includes CETPs)

4 Procurement & contracting

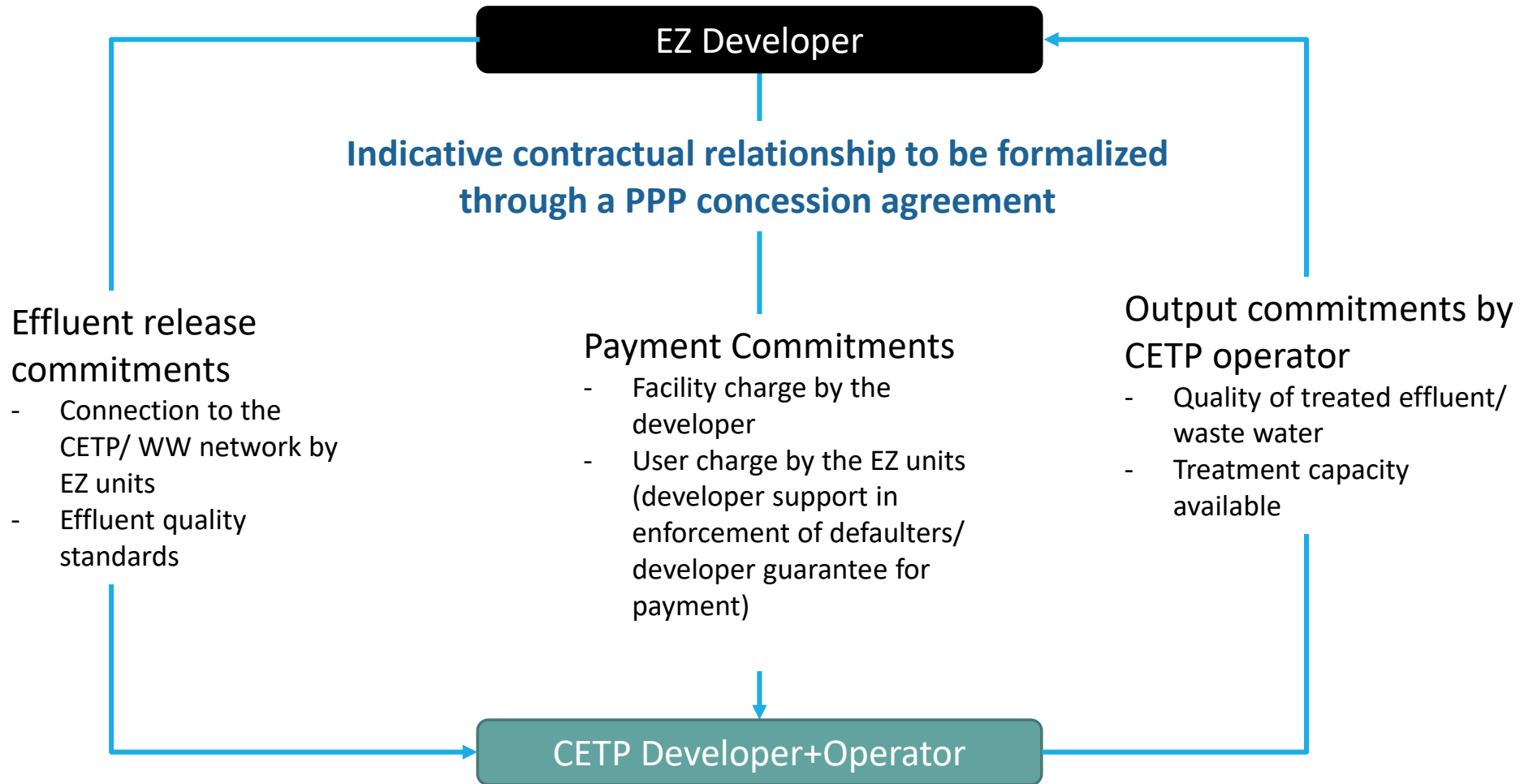
- International competitive selection
- SPV for each EZ
- Standard contract structures, relationship with EZ developer



Indicative PPP/ private operator models to be explored

Possible model	CETP/ RRR facility developer or operator	Government in its role as PPP facilitator	EZ developer
Build operate transfer	Generates revenue through effluent charge (collected from users) and sale of recycled water to EZ units	Provides viability gap funding / subsidized rates for land leasing	May be responsible for collecting the user charge
Performance linked annuity/ availability	Generates revenue through annuity/ availability payments	Provides viability gap funding / subsidized rates for land leasing	Pays a fixed capacity charge and performance linked annuity Collects user fees from the EZ units
Performance linked management contract	Generates revenues through management fees	Provides grant for construction of the infrastructure / subsidized rates for land leasing	Pays a management fee linked with output standards, collects user fees from the EZ units

EZ Developer & Effluent/ Waste Water operator relationship



Incentivizing resource recovery and reuse ...

Supply Side

Including resource recovery in the minimum development obligations

- Power generation
- Mineral recovery (N, P, K)
- Recycled water (meeting the requirements of potential industrial customers)
- Compost

Demand Side

Creating a market for recovered material/ recycled water

- Preferential tariff for waste to energy generation
- Regulations to ensure industrial consumers use only recycled water (in a particular service area)
- Incentivizing compost marketing/ use through regulations



BEZA support through contractual clauses, license requirements, project scoping, regulations, project development assistance and coordination with other departments (electricity for example)

BEZA facilitation for private investment in CETP/ Water RRR

- Process already initiated by BEZA to appoint an international TASF to ensure world class development of CETP and Water RRR facility on PPP basis in Mirsarai 2a EZ- as a pilot project
- The TASF for Mirsarai 2A is expected to develop viable business models for ensuring deployed CETP and Water RRR systems are sustainable in the long run.
- Establishment of a dedicated CETP Facilitating and Monitoring Facility in BEZA with the help of 2030 WRG
- Promoting the development of innovative financing mechanisms for establishment of Water RRR facilities in EZs
- CETP and Water RRR Facilities in BEZA EZs are expected to be driven by set of policy and incentives based on optimal allocation of risks, and various incentives like concessional pricing of land for CETPs and Water RRR facilities, VGF, and tariff strategies that encourage industries to support Water RRR

Thank You