



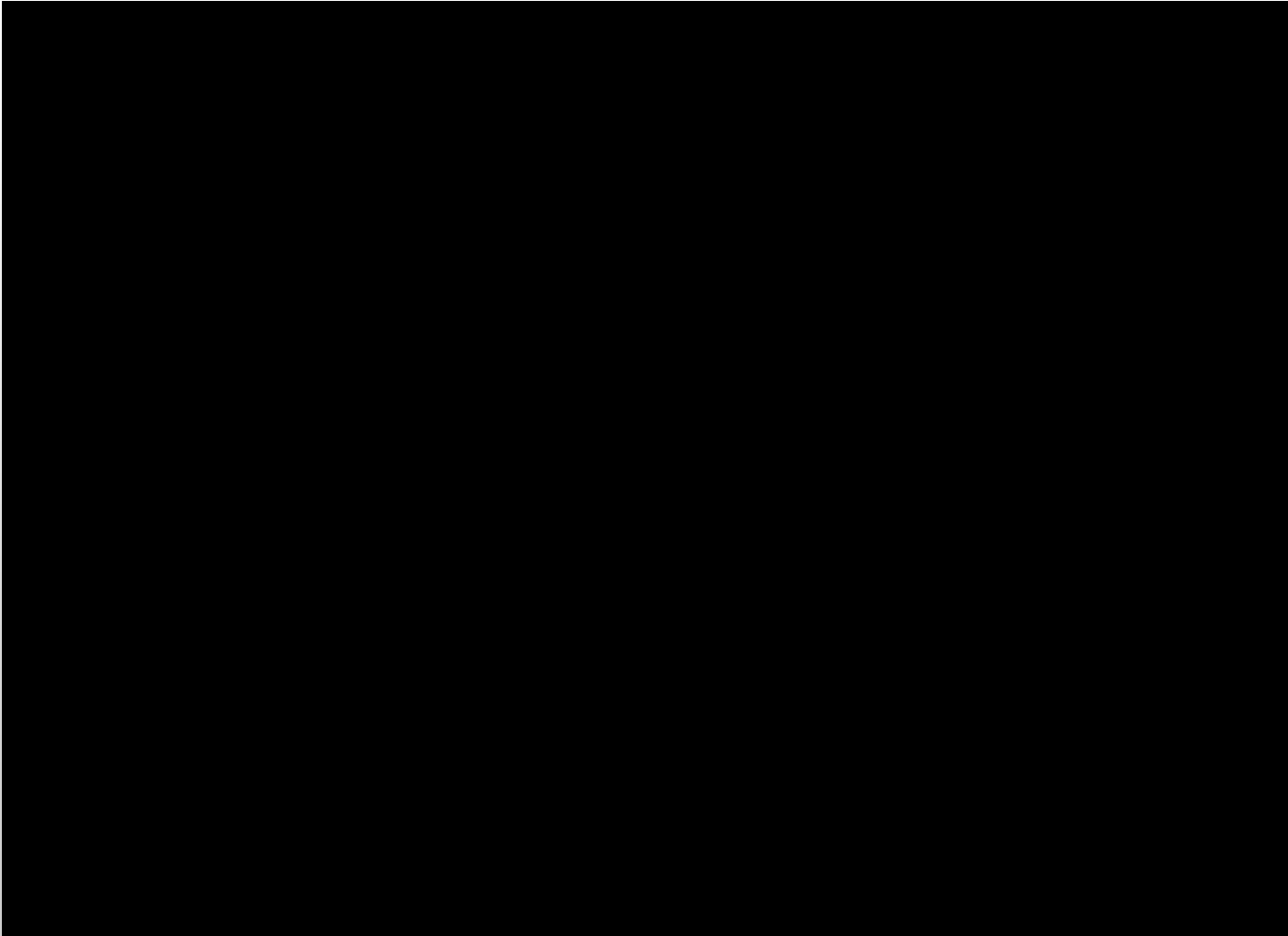
Carbon Financing towards Cleaner Initiatives

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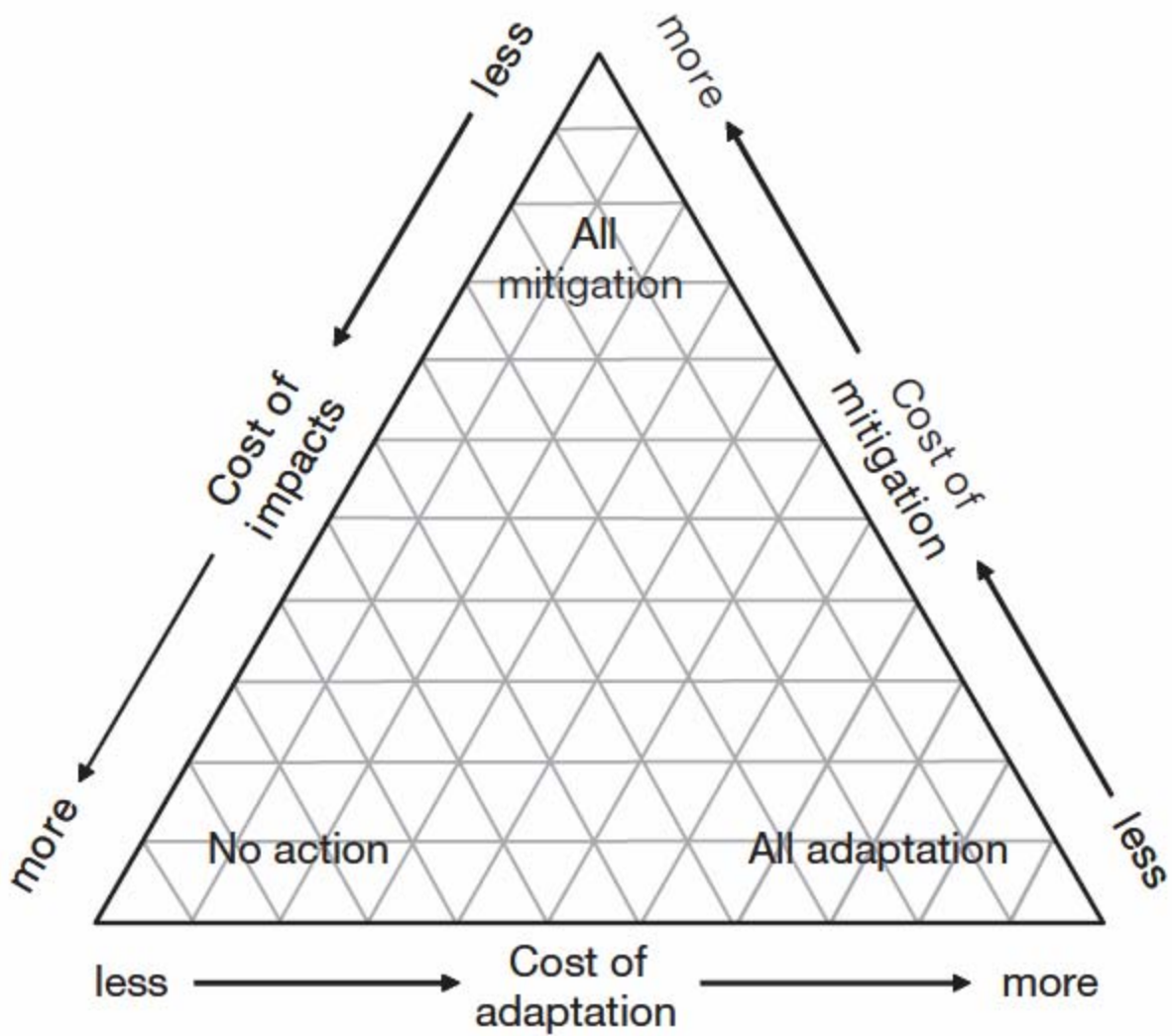


Why Clean Initiative ???!





Why Clean Initiative ???!



Ask your director
increases

reduce

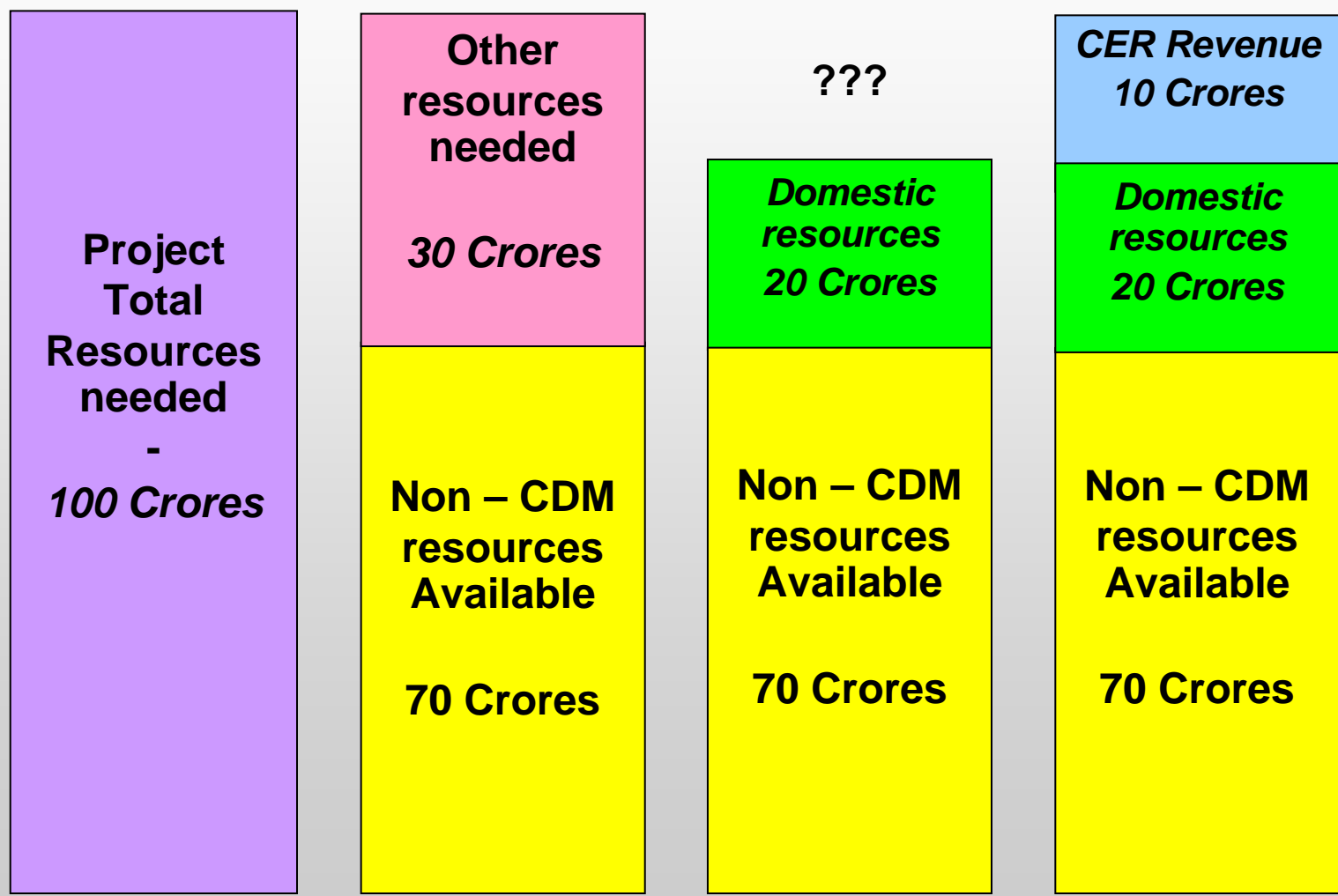


Clean Initiatives...

- » Energy Efficient Power Generation and Distribution
- » Green / Renewable Power Generation
- » Less Carbon Intensive Manufacturing Processes
- » Energy Efficiency in Public Systems – ESCOs
- » PPP for clean projects



Carbon Financing ???





Carbon Financing – Few Numbers...

Project	Carbon Finance - Equity
Wind	25%
Biomass	45%
Hydro	30%
Super Critical Power Projects	6%
Waste to Energy - 10 MW	30%



Classic Financing options

1. Project Financing

- Project activity Physical Funding
- Equity – Special Purpose Entity
- Technology / O&M,
- Corporate loan
- Equipment Financing

2. ERPA Based Financing

- Securitization of ERPA
- Loan - 50% Possibility of Total ERPA Value

3. CDM financing

- Transaction costs: CDM Cycle PDD, Validation, New Baseline Methodology, Registration Charges, Verification

4. Institutional Financing (SPV Model)

- Financial Institutions
- State Level Nodal Agencies
- Technology Developers



Orissa Story....

- » **15 MW Biomass Power Project** under construction in Rourkela
- » Forward Contract (ERPA) with German Power Company
- » CDM Costs by German Power Company
- » Upfront Financing - ~ **3 Crores** for construction

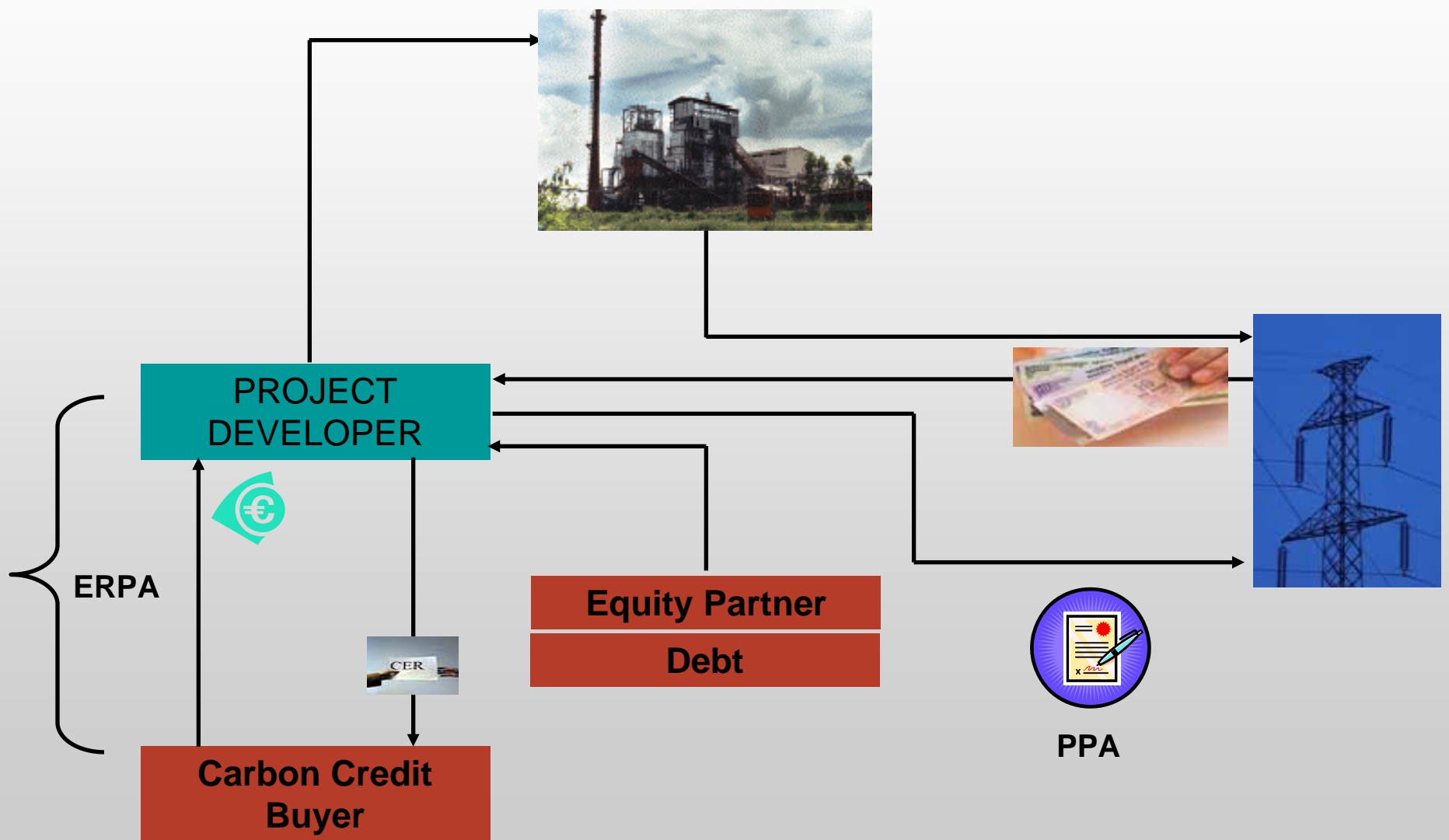


Orissa Story 2....

- » **8 MW Waste Heat Recovery** Power Project under construction in Rourkela
- » Forward Contract (ERPA) with German Power Company
- » CDM Costs by German Power Company
- » Upfront Financing - ~ **2 Crores** for construction



Integrating - Carbon Financing





Risk free transaction models - Strategy...

- » Risk bearing capacity
- » Resourcefulness
- » Requirement of hard cash
- » Market knowledge
- » Resource availability (e.g. manpower, time, capacity etc.)



Way Ahead

- » **Build Awareness** CDM in Project Level
- » **Identify suitable projects** and explore their suitability for CDM
- » Develop your CDM Strategy, anchored at high management level
- » Test the CDM market with pilot transactions thru transparent mechanism
- » Exploring the possibility of Carbon Financing to minimize the risks



Transactions ...

DSM



Biogas

Waste Management

Renewable Energy



Fuel Switch



- Total CERs contracted = ~ 6 Million till 2012
- Carbon Financing = ~ 5 Million Euros
- Number of Projects = 29



About GTZ International Services



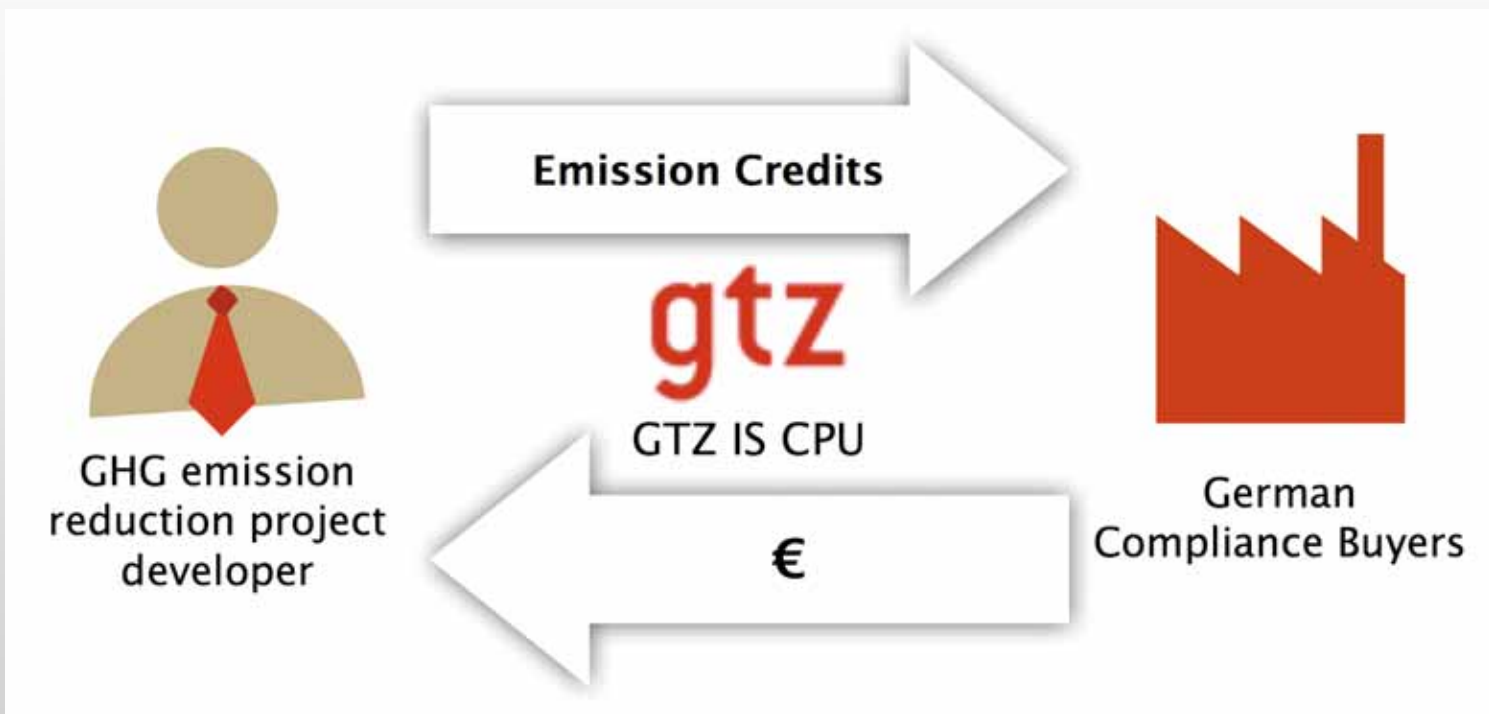
Carbon Procurement Unit

GTZ IS is an *extended business arm* of GTZ

GTZ IS-CPU India is a conducive Carbon Markets platform between India and Germany



CPU: Operational Model



End-to-end solutions including Project Development Assistance and Emission Credits Trading Assistance



GTZ IS - CPU

Buyers



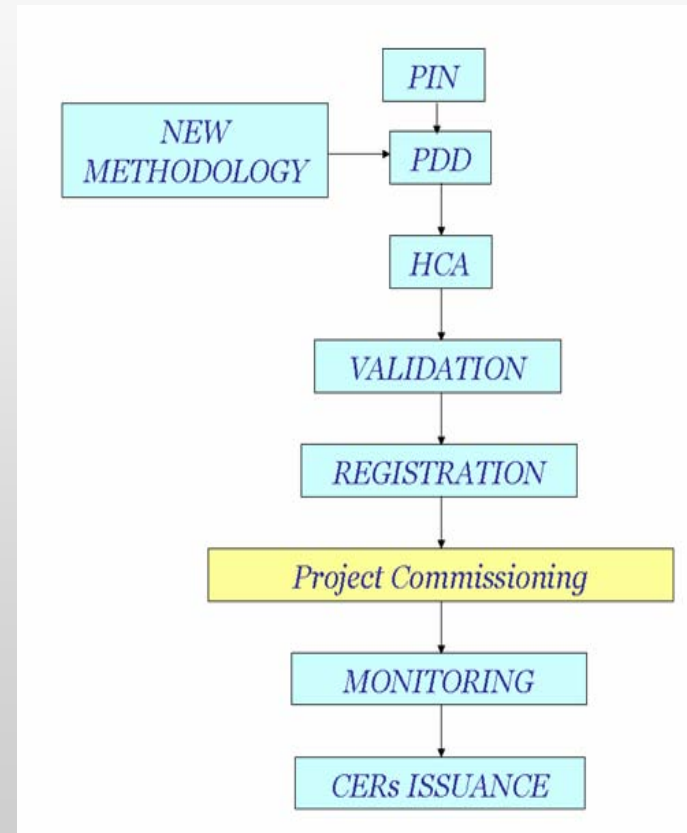
Geography





GTZ IS-CPU Services

- **Identify** eligible GHG emission reduction **projects**
- Facilitate / **finance CDM project documents preparation** and **approvals** in line with the CDM/GS VER project development cycle
- Introduce high qualified/rated big **buyers in Germany** (*Compliance Buyers*)
- Facilitate **Financing** / **Carbon** Emission Credits Trading in all stages for GHG mitigation projects
- Facilitate Buyers with **Monitoring Management** to timely and reliable delivery
- Facilitate **transfer of advanced clean technologies** from Annex I countries





GTZ IS- CPU Advantages....

- » ... is associated with **AAA** rated **Compliance Buyers** - end users of emission credits
- » ... is widely **networked** in Indian and European carbon market
- » ... has **long-term involvement** with project developers worldwide
- » ... has **credible experience in the carbon market**
- » ... provides **complete solution** from CDM project development to transaction of carbon credit with reputed buyers
- » ... is **cost/risk free** to the project developer



Thanks for your attention



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