



Early Experiences in The Development of Pilot NAMAs:
Private Sector Involvement & Scaling Up Installation of
Capacitor Banks.....

Energy Commission &
Environmental Protection Agency

Carbon Strategy
Institutional Defining
Scope Unilateral mechanisms
development market-based
Arrangements Actions Appropriate
Supported
MRV
Credited
Needs
Vision Support
Legal Linkages Nationally
Registry
Nature
Shared
Mitiga
Low

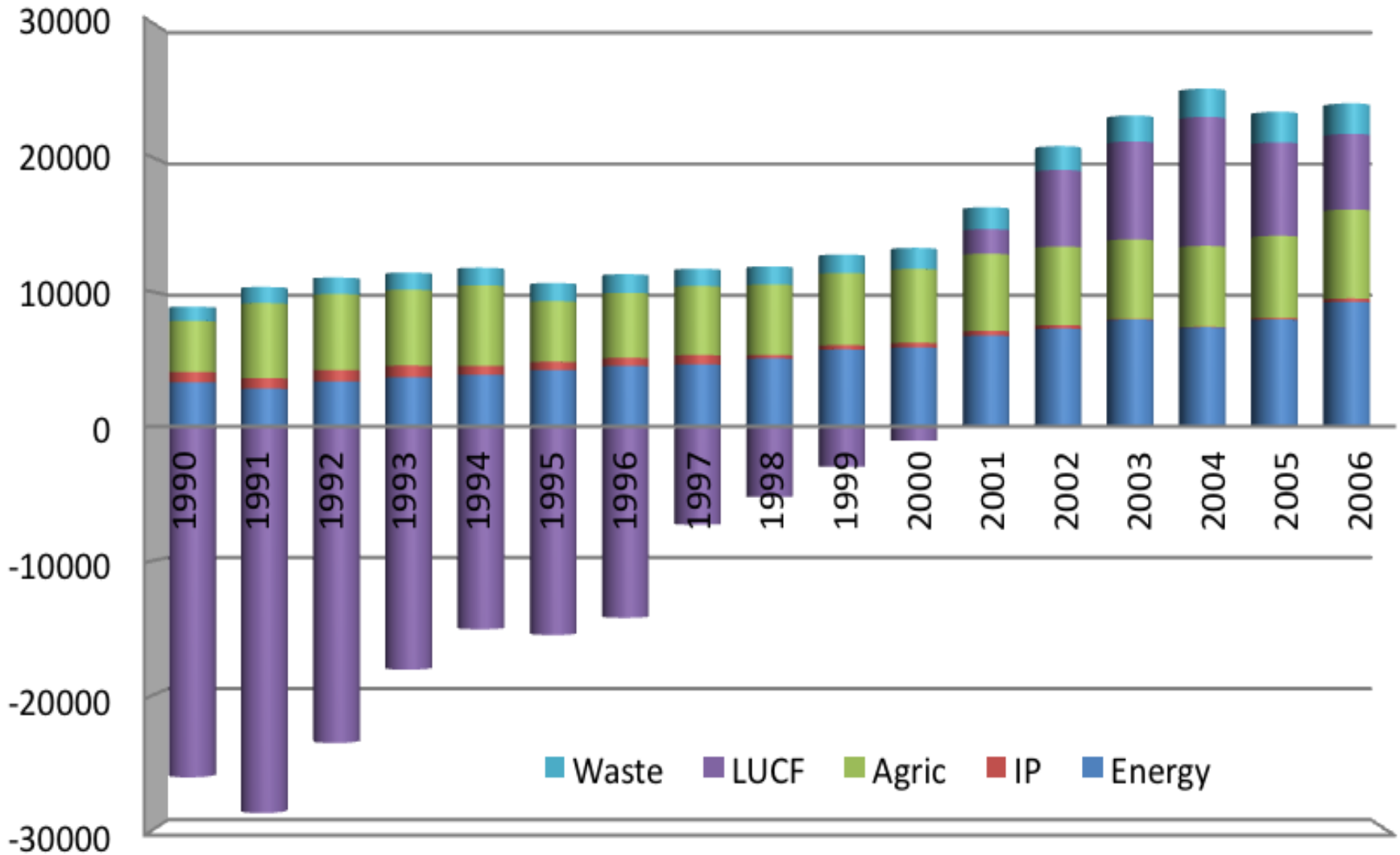
NAMAS

Scope

- Ecology of NAMAs verses development policy
 - Positive and enabling synergies
 - winning strategies (win-win-win, scaling-up opportunities)
 - development relevant considerations
- Benchmarking and targeting (prioritization processes)
- NAMAs Readiness and programme development
 - Pilots (Energy Efficiency Programme and Guide Book for Private sector)
 - MRVs and registry system – “phase out approaches”
- Early lessons and challenges

Stress test of Ghana's low carbon development opportunities

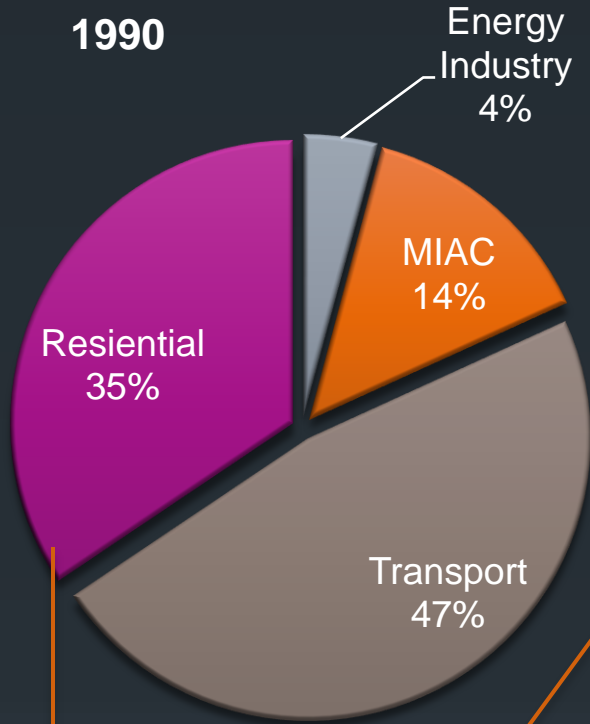
GHG Emissions Profile in Mt.... without projections and deviations???



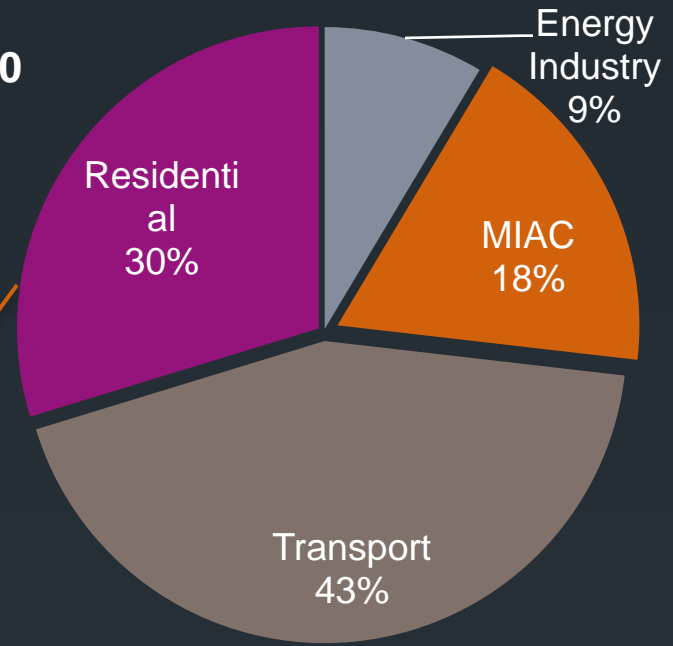
Energy sector emissions trends



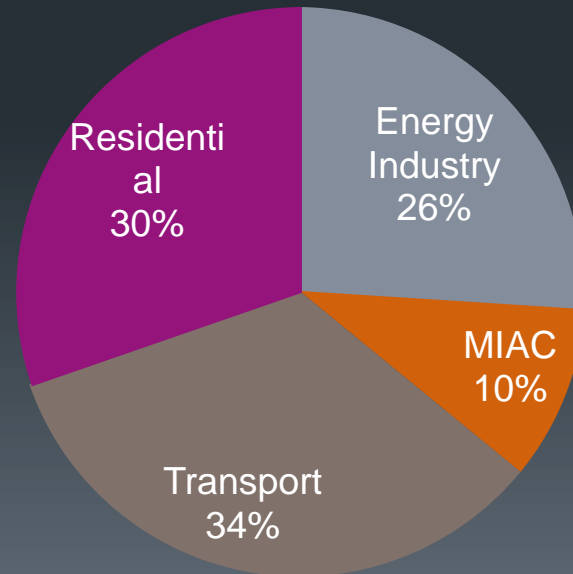
1990



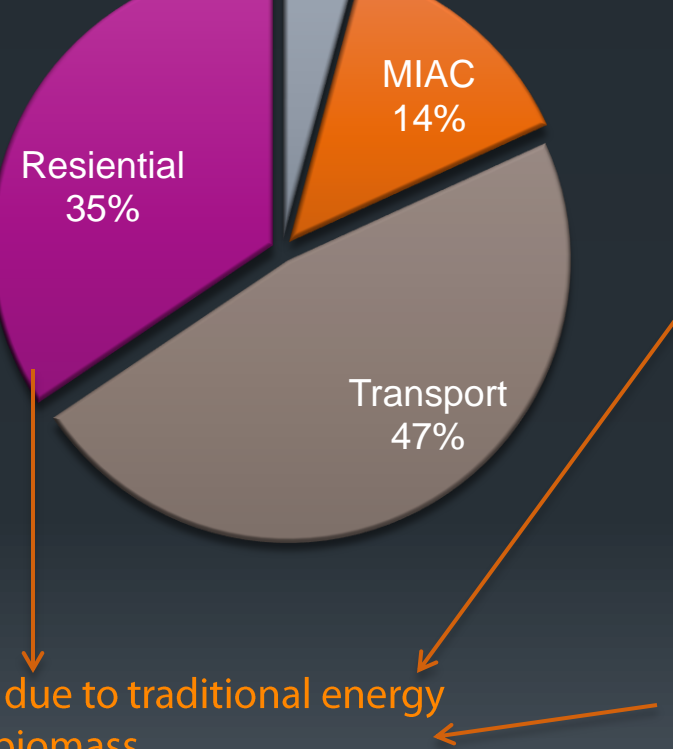
2000



2006



Mainly due to traditional energy use of biomass.....

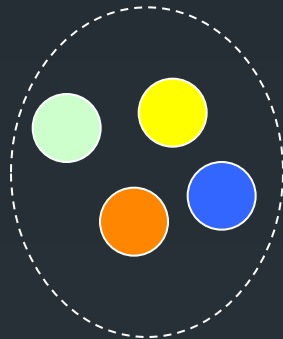


..... Transit & Propel of Ghana's Development to Socially Inclusive Sustainable Growth pathway... Questions: how (means) which (sectors, technology), where (targeting and bench marking), when (prospects vs. "rapidity" of transition),

Ghana's development pressures



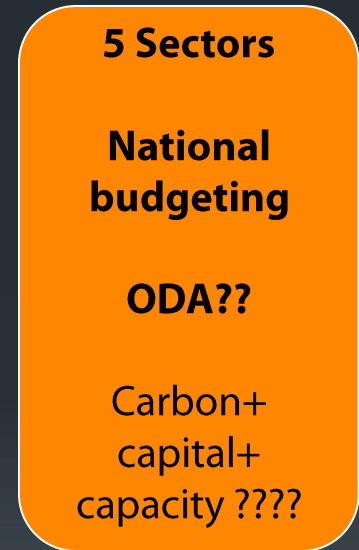
New National development blue print



National Climate Change Policy



Targeting and bench marking



Growing energy demands
 Bridging rural poverty gap
 3.4% annual urbanisation rate
 Deforestation
 2.7% population growth rate

Increasing sustainability

transition – positive synergy for mainstreaming, win-win-win benefits



.....keeping our eye on the big picture.....

Decarbonizing Ghana's development path - Low Emission Strategies + Sustainable Development + Propel Growth

Supported Actions

Domestic actions

MRV system, Registries, Review of impact of actions

Increasing accountability

Phased-approach implementation – readiness, implementation, result-based crediting

Blend-option

Market-based

Fund-based

Sustainable land management

REDD+ – forestry sector

NAMAs – programme, policy, sector-wide (major emission sectors)

Agriculture

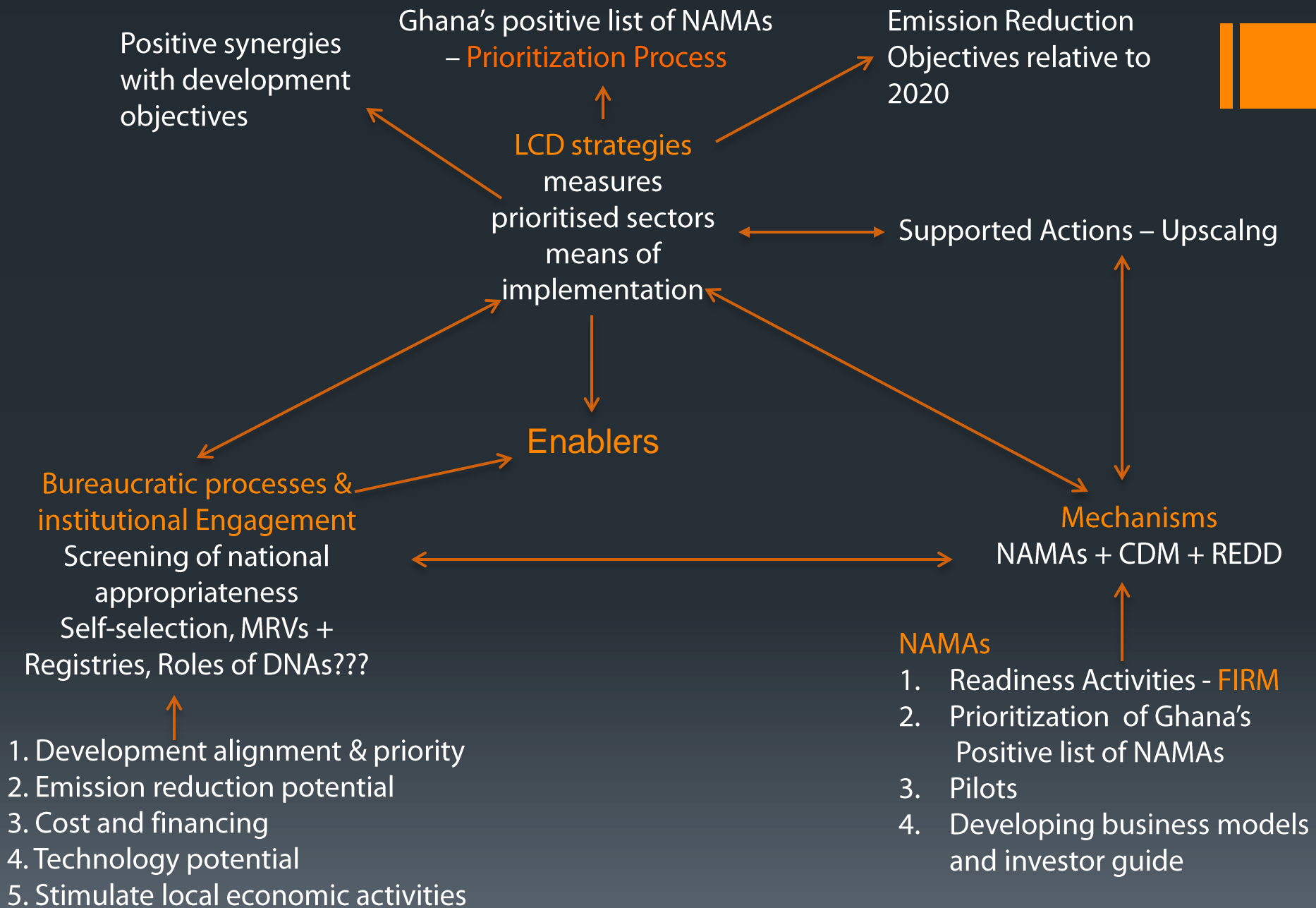
CDM/PoAs

Project based

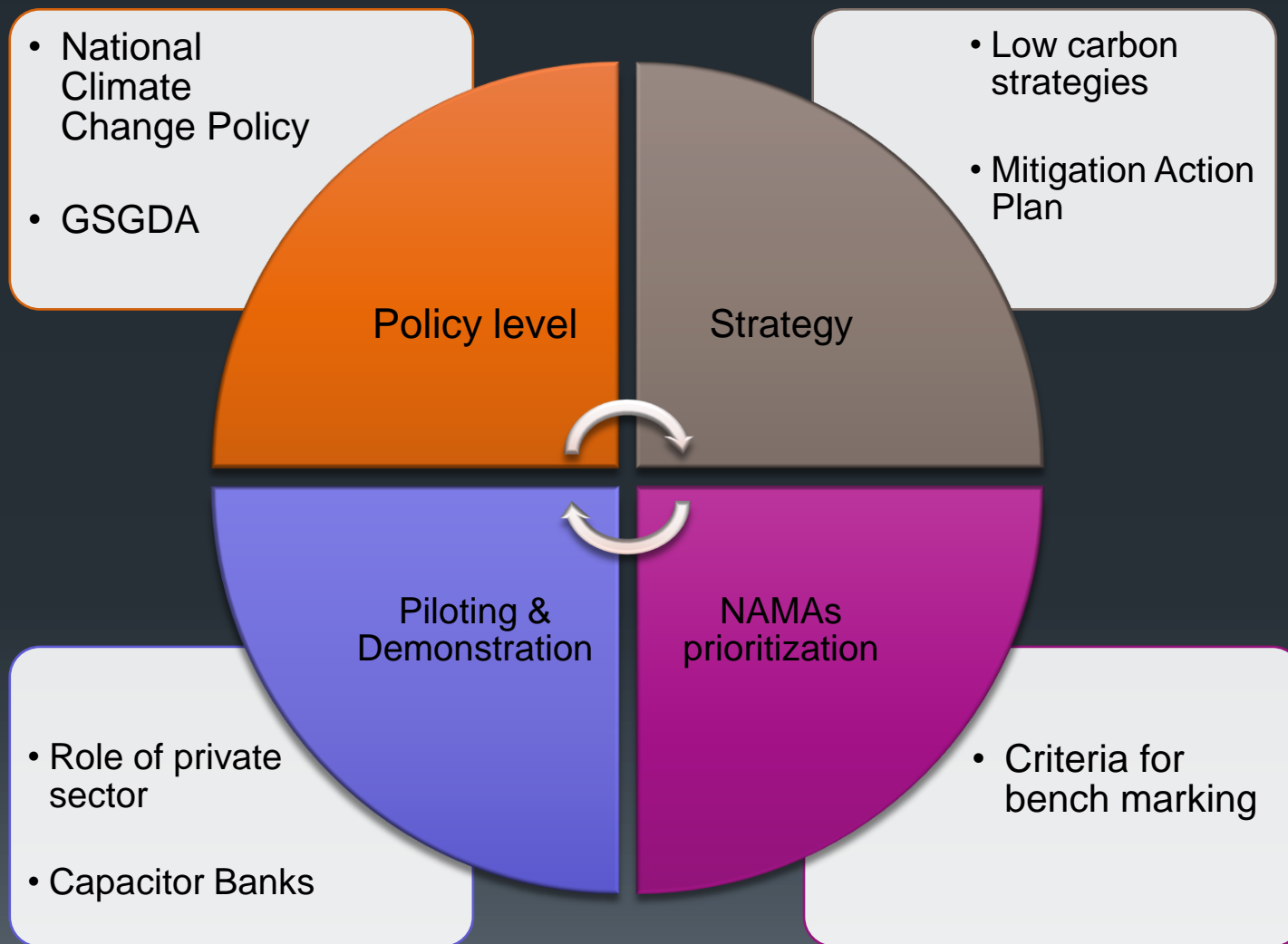
Programme based, economy wide

Sectoral Approach????

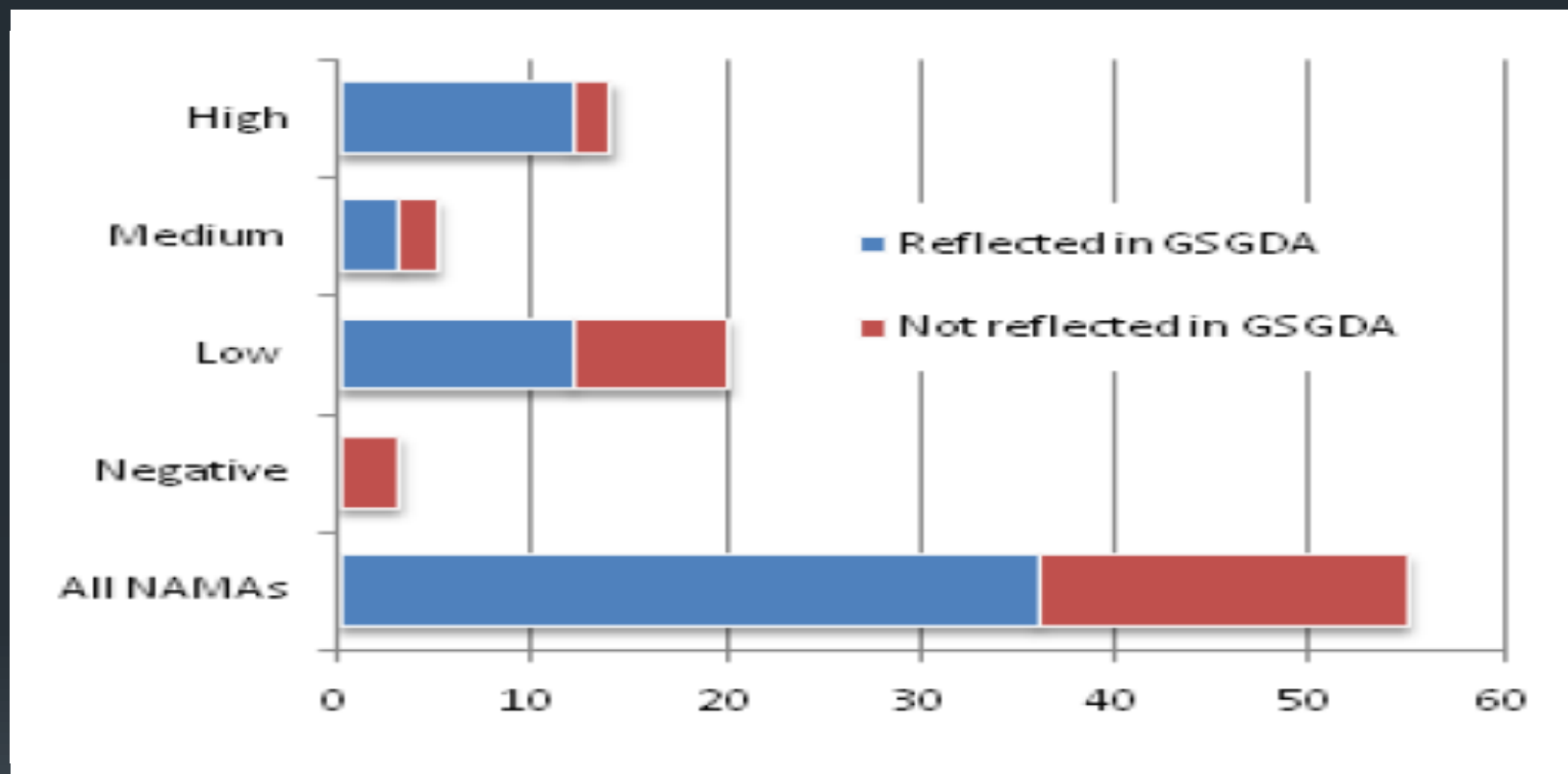
Climate Mitigation mechanisms



National Process Ghana's Case: Three parallel processes



initial analytical work on Ghana's NAMAs – screening of its nationally appropriateness and emission reduction potential: ECN



NAMAs Pilot Under development

1. Energy Efficiency Actions

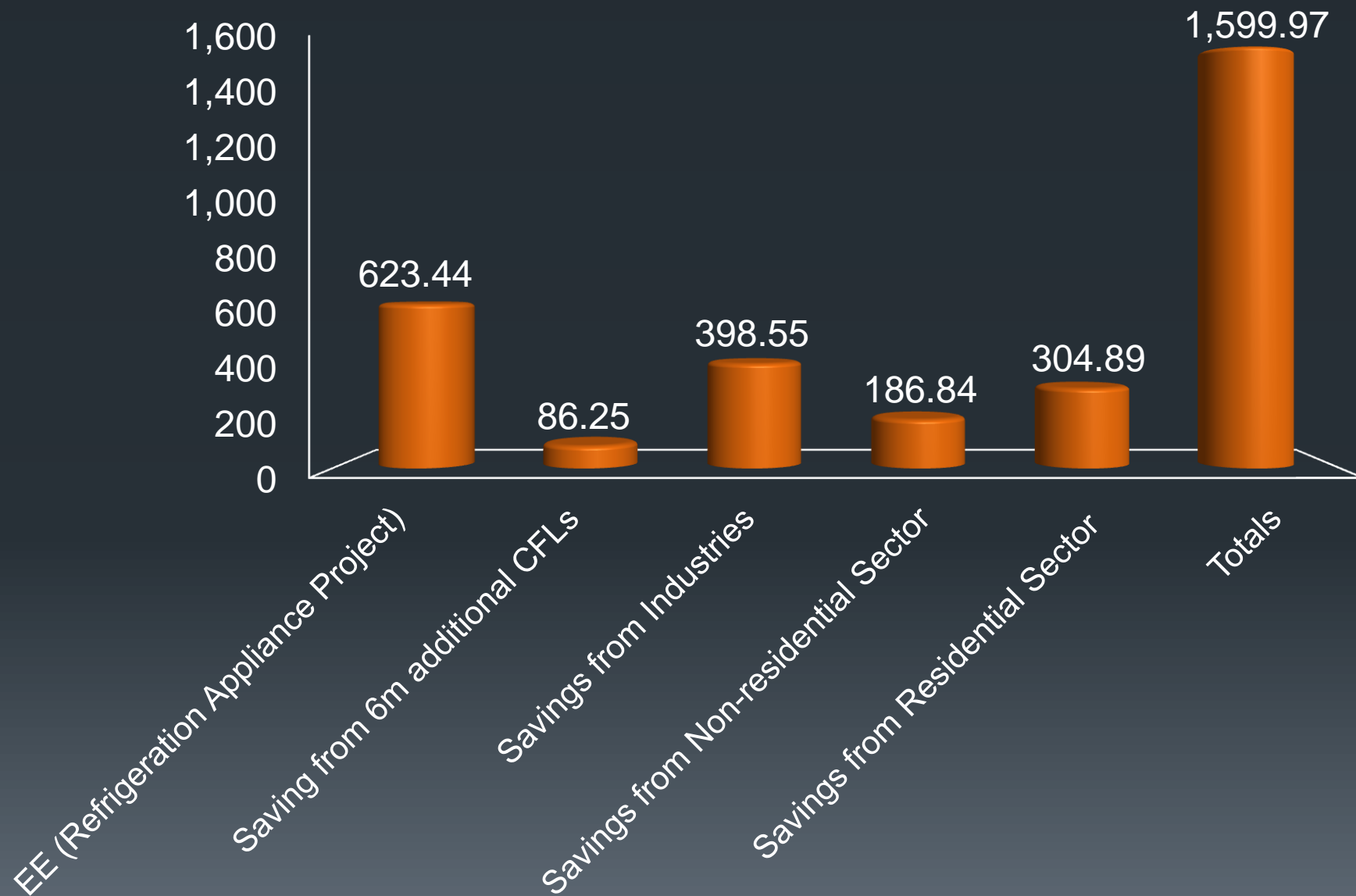
e.g. Scaling-Up Capacitor Bank Installation Program

2. Integrated Model Farm for Climate Smart Agroforestry and Animal Feed Management in transitional zone

Promising areas (greater enabled environment.....policy, experience, financing)

1. REs for Grid-connected Mix Using FIT Schemes (Guarantee RE in the Grid Mix)
2. National Sustainable Charcoal Production Enclave Development
3. CNG fuel replacement programme for Mass Metro Transit Fleets in 10 Cities in Ghana (200 fleets initial estimations for scaling up)
4. Urban area Road Traffic Automation and Regulation
5. National Programme on methane management from Sanitary Landfill including investment framework for integrated urban area waste management

Indicative Numbers of EE Programmes (Emissions Reduction in GtCO₂ in Ghana)

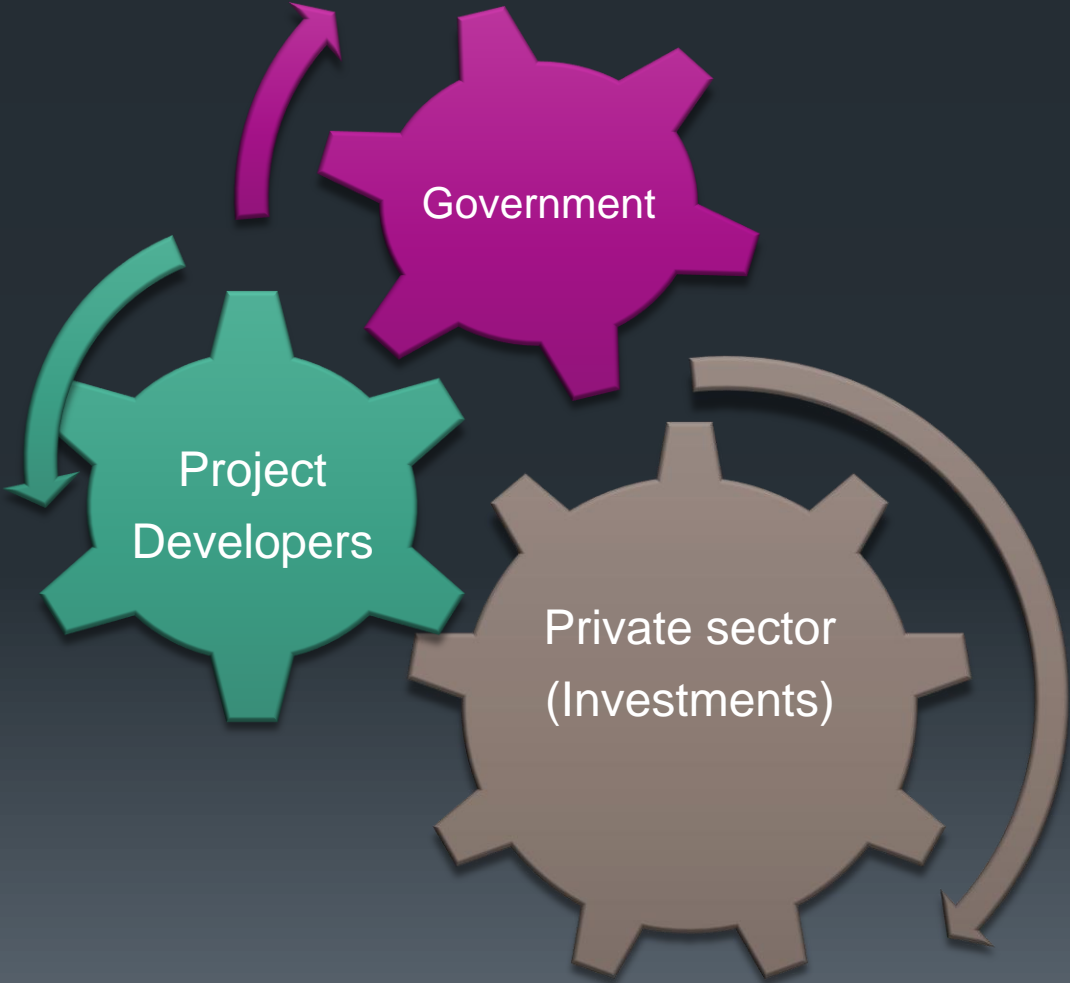


Some Indicative strings:

Capacitor Bank Installation in Prime Public Buildings (Potential example of unilateral NAMAs.....scaling up could consider “overseas supports”

- “Programme for installing capacitors” in bulk electricity consumption buildings (hospitals, public buildings , universities, **nearly 70 to 100 entities**) .
- Potential to reduce demand by **39MW per year**. Installing capacitors in **distribution systems** will save additional **348,833 kwh of energy/year** .
- Payback period 11 months. From 2012 to 2020, **total savings expected at 5,772GWh** and CO₂ saving of **2.96 million tons**.
- Cumulative investment: nearly 40m USD by 2020.
- **Business model**: PPP (electricity distributors, grid transmission company, private investors, equity options), high scalability (PoA format)
- **Funding options (mix sources)** : Ghana’s energy budget or consumer revenue streams , Equity, ODAs, syndicated Loans, Carbon Capital: fast start, market, menu of funds seeking bilateral “support” from Government of Japan: talks on-going
- **Methodologies**: exploring possibility of standard baselines; existing CDM approved methodologies???,.....or methodologies under Japanese JVER

Investor Guide for Private Sector: Key Actors



How do we (Government??).....help provide enabling information to support your investment decision-making??



Concept, ideas and processes for the development of Investment guide

- synthesizing critical information on climate mitigation action into a one-stop-shop pot
- processed-based, participatory
- Intending to provide practical information relating to ;
 - technical risk and barriers and solutions
 - Case studies of successes stories and “stress points”
 - emission reduction potential of sector and projects;
 - technology; added value
 - ease of implementation score;
 - MAC
 - alignment with national developments;
 - National approval processes
 - Potential investor profile and initial due diligence pointers

Concept, ideas and processes for Investment guide

- On-line platform and quarterly disclosure of investment outlook
- Strong partnership with Ghana Investment Promotion Council and NBSSI platform
- Associations and “chambers” – Mines, Telecommunication etc

Early Lessons and Challenges

- Lack of clarity of how typical NAMAs would look like. **Learning by doing & taking baby steps.**
- Who pays for what??? What financing model would fit??
- Under capacity issues (human, institutional) including coordination and efficiencies. Promotion: ability to attract right investments
- Non-competitive bureaucracies. Which institution does what and gives what approvals at what stage? Who is to monitor and report what?
- Environmental integrity? **mode for proving additionality?? suppressed demand issues??**
- Risks associated with unpredictable nature of NAMAs - **generally catalytic, early bird inertia???**

Early Lessons and Challenges

- Big-splash-emission reduction nature. (heavy and frontloaded consultations)

Strong nexus: Single CDM → POAs → Sector wide actions → NAMAs.

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graph LR; A[Single CDM] --> B[POAs]; B --> C[Sector wide actions]; C --> D[NAMAs]; B -.->|scaling up| D;
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scaling up

In terms of its:

- development
- national screening and self-selection
- methodologies (baselines and monitoring)
- Reporting
- Transactions??? Commercial interest???

However, inherent differences in terms of

- Means and structure of financing
- Scale and coverage and implementation structure
- Time for consultation and approvals could be onerous
- Strong inertia against “single-emission reduction factor” entry message.



Thank you; still learning, lets share ideas