



N A T S O U R C E[®]

Role of the Clean Development Mechanism - Post 2012

Pew Center on Global Climate Change
Briefing for House of Representatives

Washington, 24 April 2009

The Imperative for Improving CDM & JI

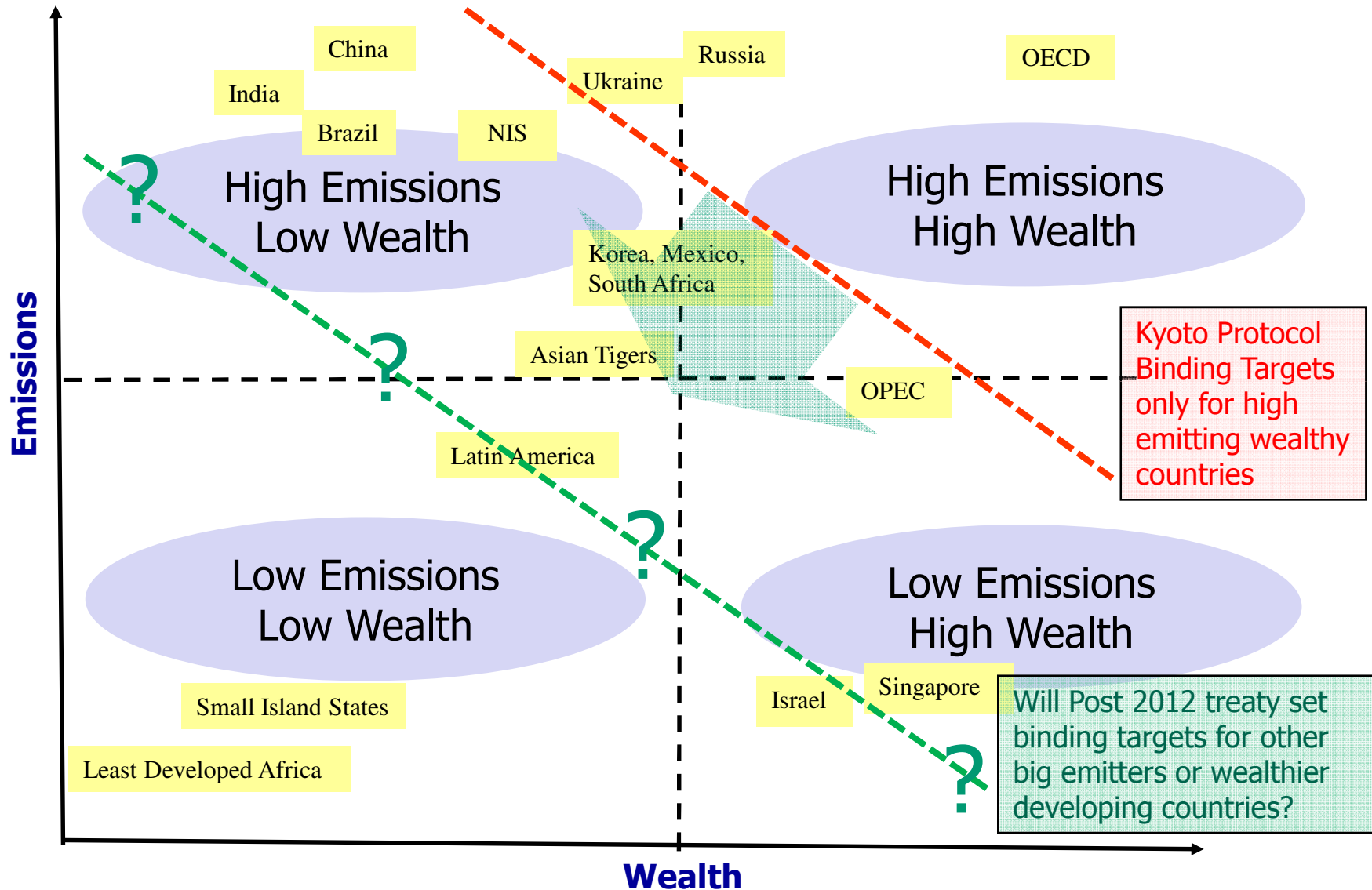
- **Global energy demand trends and investment needs ***
 - Global energy demand and CO2 are projected to grow 45% by 2030
 - \$22 trillion in supply infrastructure investment is needed to meet demand

- **The Post 2012 mechanisms need to influence this investment**
 - CDM is largely positive – provided a start, but much more is needed
 - Post 2012 policy will build on the CDM & JI experiences
 - Can mechanisms be reformed to influence investments in long lived energy projects?
 - Mechanisms also needed to stimulate investments in key untapped activities such as energy efficiency and forest sequestration

- **Copenhagen could adopt a variety of instruments tailored to abilities of different Parties**
 - Economy wide limits for OECD and other wealthy or high-emitting countries?
 - Sectoral limits or REDD for other countries?
 - Improved project based mechanisms for smaller countries?

* *Source: Data in this section from IEA World Energy Outlook 2008*

Negotiation Post-2012: Who Takes Binding Targets?



CDM Reforms in Post-2012 Debate

- **Fundamental Driver: CDM, JI and other offset systems can lower costs of addressing climate change**
 - Project based mechanisms bring cost-effective reductions from non-covered sectors or jurisdictions
 - Avenue for developing country participation
- **Negotiations in Bali & Poznan focused on reforms substantive elements, institutions and procedures**

Substantive Reforms

- Improved additionality criteria for projects
- Eligibility for carbon capture & storage
- Credits for Program of Activities
- Credits for Sectoral reductions
- Credits for REDD (forestry)

Institutions & Procedures

- Appeals process
- Full time Board appointments
- Code of Conduct for Board Members
- Clarify roles for Board, Secretariat, DOEs
- Hierarchy of decisions
- Streamlined procedures

Understanding Substantive Reforms

- **CDM and other offset programs incorporate elements to address three main environmental risks**
 - **Additionality:** Risk that “business-as-usual” projects receive credits
 - **Over-crediting:** Risk that projects get more credits than they actually achieve due to measurement uncertainties
 - **Impermanence:** Risk that offsets already credited are lost due to unexpected events (e.g. fires, flooding, disease)

- **Desires to minimise environmental risk led to additionality requirements that appear unpredictable and arbitrary to investors**

- **Investors, industry and environmental NGOs agree on two realities**
 - CDM & JI have not realised their full potential to date
 - More certainty in rules governing asset creation will mobilize more capital for climate action

CDM & JI Improvement: Design Options

- **Natsource conducted study for IETA on how reforms could:**
 - Address environmental risks
 - Stimulate investment in technology deployment at the scale required to meet energy, development and environmental objectives

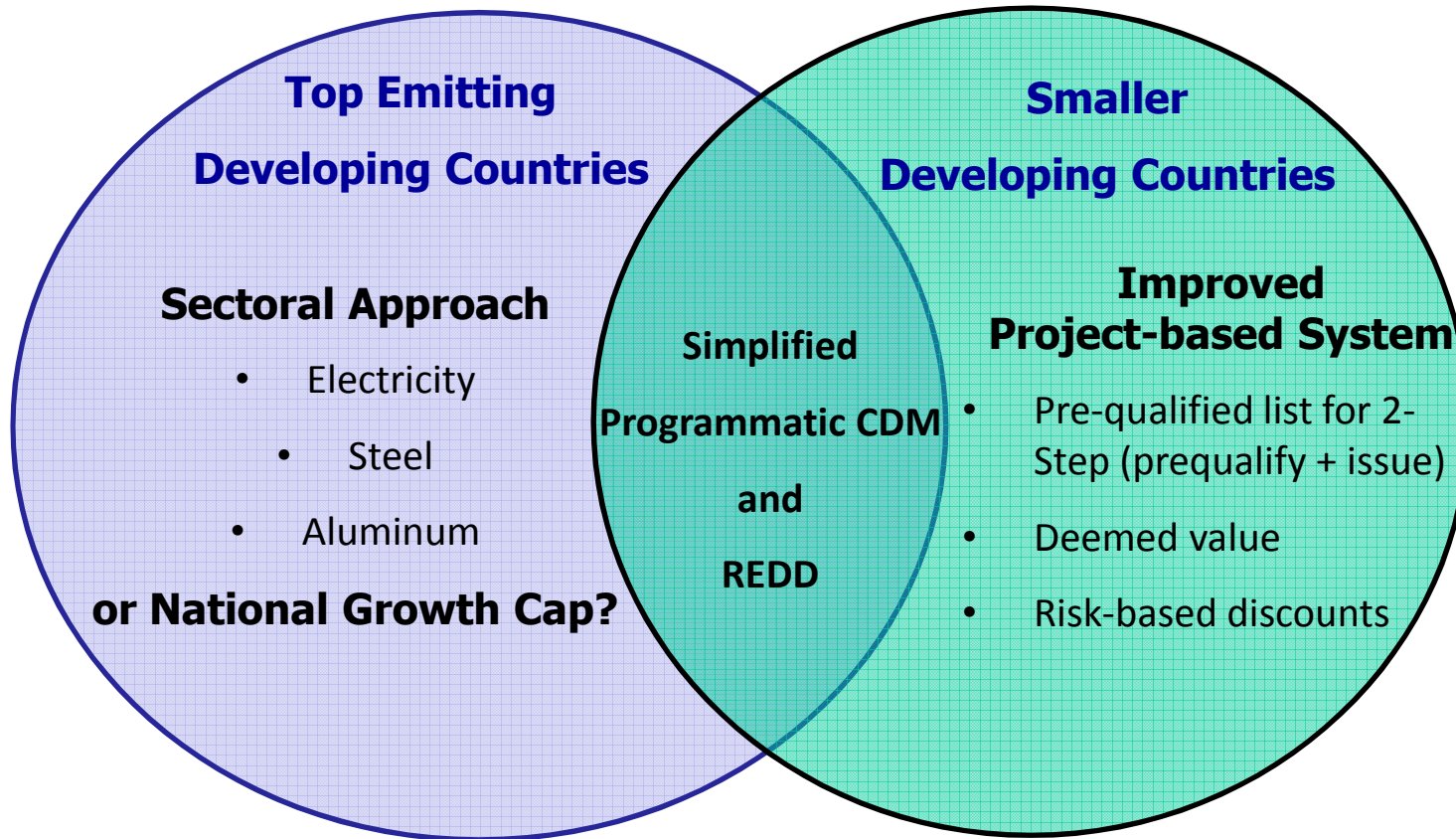
- **Options evaluated include:**
 - Project-based reforms (where additionality is defined by the Protocol)
 - deemed value
 - two-step approval process
 - risk-based discounting
 - System-wide approaches to leverage large scale reductions,
 - sectoral achievements awarded and distributed to sectoral participants
 - simplified "program of activities" approach
 - REDD crediting system for forest preservation and protection

Comparison of Design Options

Approach	Description	Examples
Project-based Approaches with Additionality by Policy		
Deemed Value	Pre-set crediting by activity where performance is known	Compact fluorescent bulbs (kg/year)
Two-step Approval	Pre-qualification of activity (list of eligible types); Post-installation measurement & crediting (for capital intensive projects)	Renewables; Landfill gas capture; CMM capture; CHP
Risk-based discounting	Pre-established risk discounts to address measurement uncertainties (high benefit measures, yet difficult to quantify)	Soil carbon sequestration; transportation.
System Wide Approaches with Standardized Baselines		
Simplified programmatic approach	Credits for a program of activities	Demand side management; weatherization; building standards.
Sectoral approach	National/regional sector-wide benchmark for sector (baseline & credit)	Electric power; refineries; cement; steel; glass; aluminum.

Source: "Reforming the Project-Based Mechanisms to Achieve Long-Term Climate Protection," Natsource Report for IETA, et al (July 2008)

Potential Framework for CDM Post-2012



Source: "Reforming the Project-Based Mechanisms to Achieve Long-Term Climate Protection," Natsource Report for IETA, et al (July 2008)

About Natsource

➤ **Leading private sector greenhouse gas (GHG) asset manager with significant policy and commercial expertise**

- Approximately \$1 billion in assets under management and commitments for compliance clients and investment clients
- New Energy Finance recognized Natsource as the largest buyer of contracted carbon offsets in the world with over 100 million tonnes contracted from Clean Development Mechanism (CDM) and Joint Implementation (JI) projects
- Entered into GHG emission reduction purchase agreements (ERPAs) of over \$1 billion
- Staff participated in the development of the first carbon offset program and the Kyoto offset mechanisms and participated in some of the first and largest trades in these markets

➤ **Natsource offers integrated services in carbon and environmental markets**

- Asset Management Services
- Origination and Structuring Services
- Advisory and Research Services

➤ **Headquartered in New York with global footprint**

- Strategically located proximate to regions developing and utilizing carbon markets and major policy making centers
- Offices in Calgary, London, Ottawa, Panama City, Tokyo and Washington, D.C.

APPENDIX

Additionality at Policy vs. Project Level

- **Parties can establish additionality of key approaches in policy at outset**
 - Positive list of proven "winners" applicable in many countries (landfill or coal-mine methane, N₂O abatement, renewables and cogeneration)
 - Deemed values for deploying specific technology (efficient lighting, etc)
 - Presumed discounts for hard-to-measure actions (forestry or agricultural sequestration)
 - Additions to list based upon experience with various project activities

- **Programmatic CDM – submission “program of activities” (public/private sector measure) as single project activity**
 - If program is concrete, directly achieves measurable reductions
 - Could expand to allow reductions from imposition of non-BAU policies to be submitted as single project
 - credits issued ex post to projects meeting requirements of new policies
 - baseline is emissions under existing and planned policies
 - transportation, residential and commercial sectors – less homogeneous, less risk of leakage
 - Useful in countries with little CDM investment to date – flexibility and larger reduction potential

Policy Based: Implementation Issues

- **Expect debate on deemed values, the 2-step "positive" list and appropriate discounts – but worth the effort**
- **Lists are challenging because it is difficult to add new activities – so clear direction to the EB to continually update is essential**
- **With this approach, additionality tests are handled at policy level – so tests at project level can be avoided**
 - Additionality should be determined at policy level, not project level, to avoid eligibility risk for investors
 - Discount factors could be applied when additionality difficult to determine
 - Eligibility could initially be limited to positive list of policies preauthorized as additional
- **On programmatic CDM, funding could be delayed or diverted if government acts as seller of CERs – so government may need to allocate CERs promptly to private entities carrying out the program**

Sectoral Approaches

- **Several proposals with differing terminologies**
- **Focus on voluntary, absolute or intensity targets for key sectors**
 - Sometimes called “Sectoral CDM” or “no lose” sectoral approach
 - Market-based, potentially creating large-scale reductions
- **Countries decide whether to have their sectors participate**
 - Electricity, iron & steel, aluminum, oil refining, cement, lime, pulp & paper; or steel, aluminum, motor vehicles, aviation?
- **Baseline set for defined sector in a country or region**
 - Credits issued ex post for sector’s overall reductions below baseline
 - Investor risks (especially eligibility) and transaction costs greatly reduced
 - Additionality, overcrediting addressed through baseline setting, ex post crediting only for intensity improvements at sector level
 - Periodic updating will progressively lower baselines/carbon intensity, provide incentives to develop and deploy lower-emitting technology

Sectoral – Implementation Issues

- **CERs should be issued or allocated directly to project developers/owners to ensure funding is timely and goes where needed**
- **Clear rules on allocation of CERs credited at sector level**
 - If participation is low, participants' credits are diluted by non-actors → mandatory or voluntary participation?
 - Should allocation be proportional to % reduction below target?
 - Entities starting with lower intensity under BAU gain more credits
 - Entities starting from higher intensity may have higher marginal costs
 - Possible to consider level of effort without punishing early actors?
- **Additionality tests should be avoided at project level**
 - Would undermine simplicity, re-introduce investor risks and uncertainty
 - Target addresses additionality from top down – CER issuance limited to sector's over-performance
 - If target set carefully, actions that are truly additional will be required for sector to overachieve target