

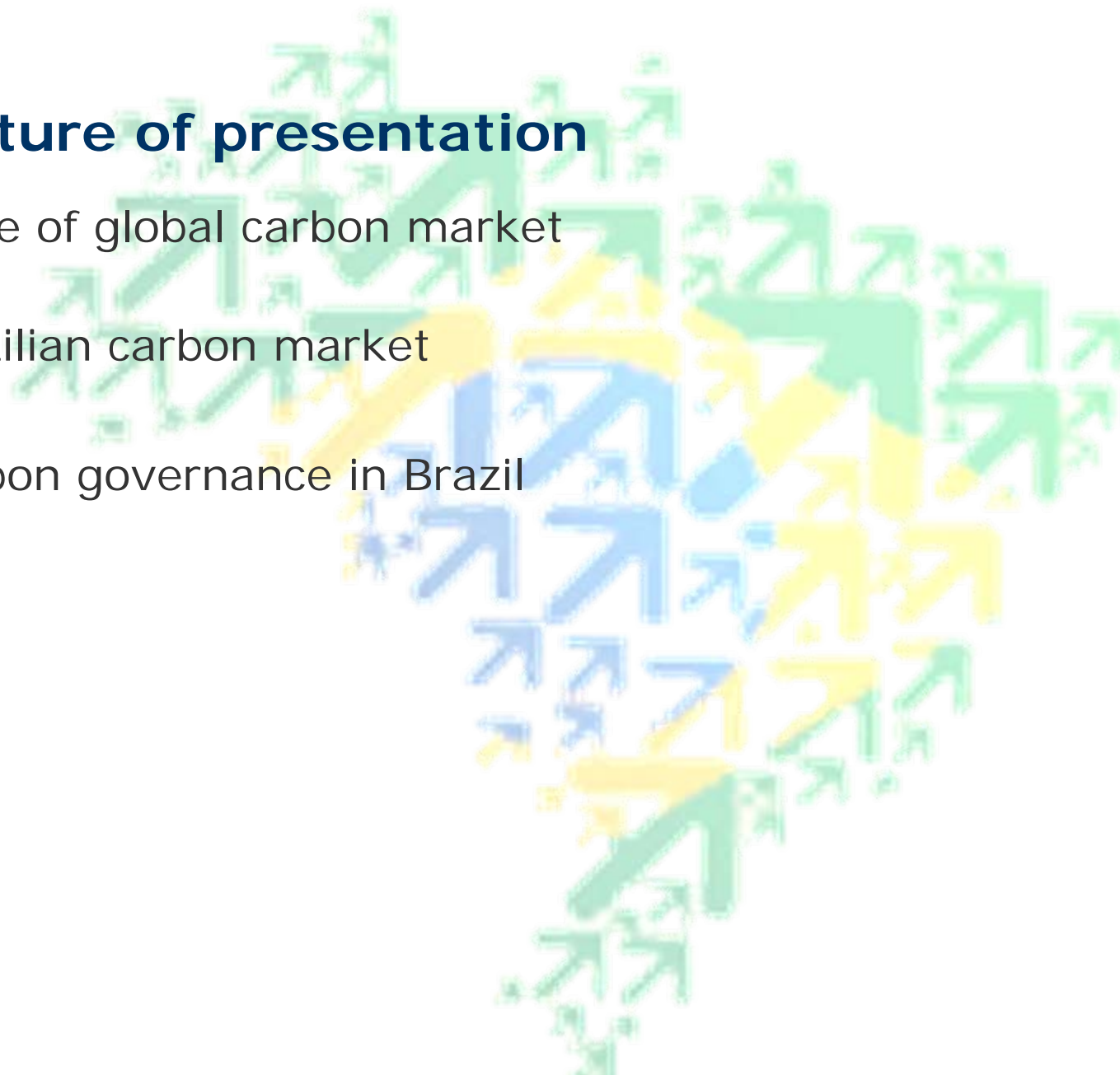
CDM in Brazil



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Structure of presentation

1. State of global carbon market
2. Brazilian carbon market
3. Carbon governance in Brazil



Research Background – Project on Carbon Governance

Research Question:

To what extent does the CDM constitute a new mode of governance in Brazil?

How does CDM as a market based mechanism work in a non-OECD setting?

(study of China, Brazil & India)

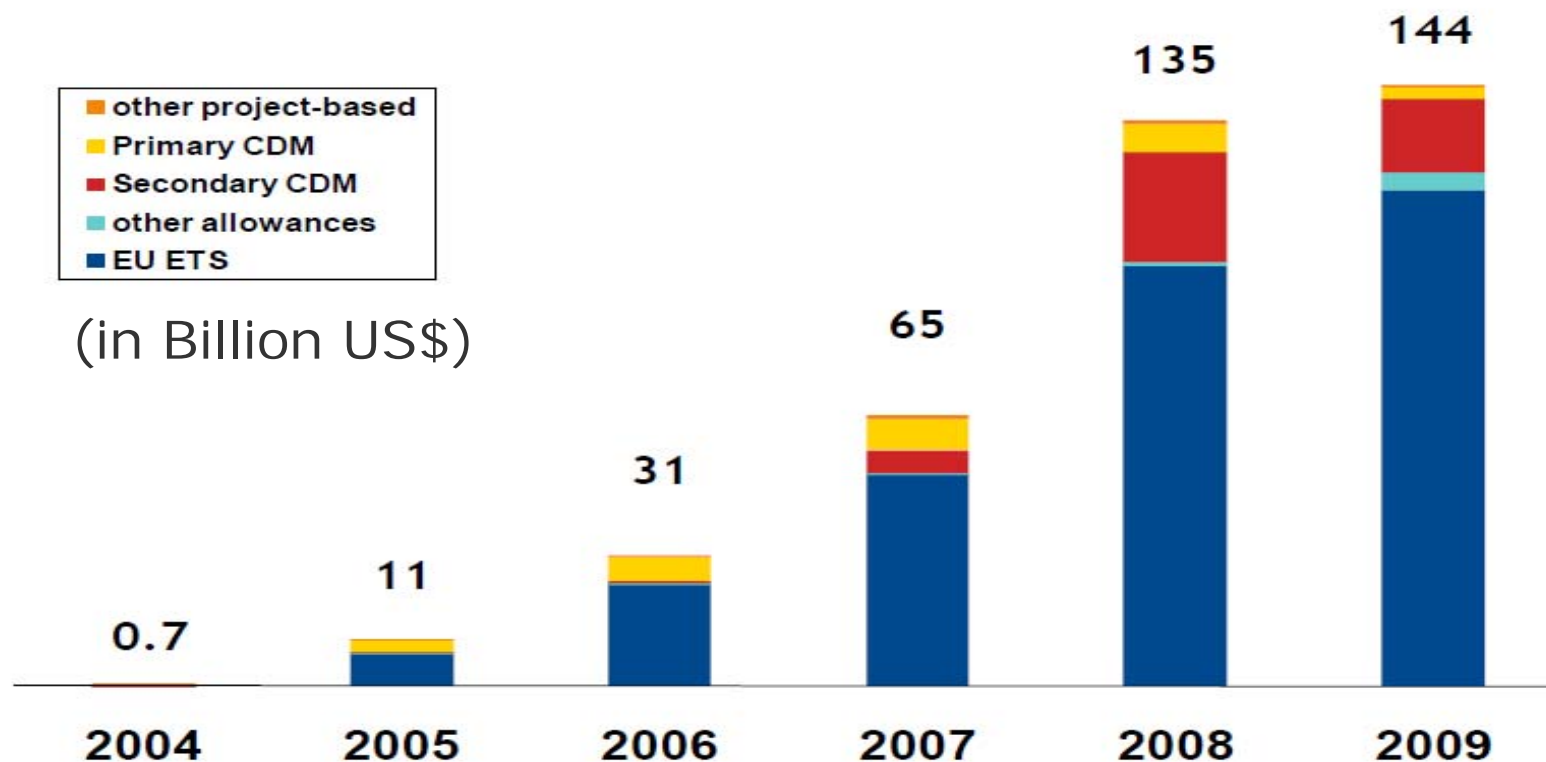
Indicators:

- Emergence of new actors
- New modes of coordination

Operationalisation:

- Interviews with government regulatory body; Civil Society (research community, NGOs); Verifiers/Certifiers; Consultancies; CDM Project Developers; Private and Public Banks; Chamber of Commerce; International Actors

State of the global carbon market in 2009



Source: World Bank: State and Trends of the Carbon Market 2010

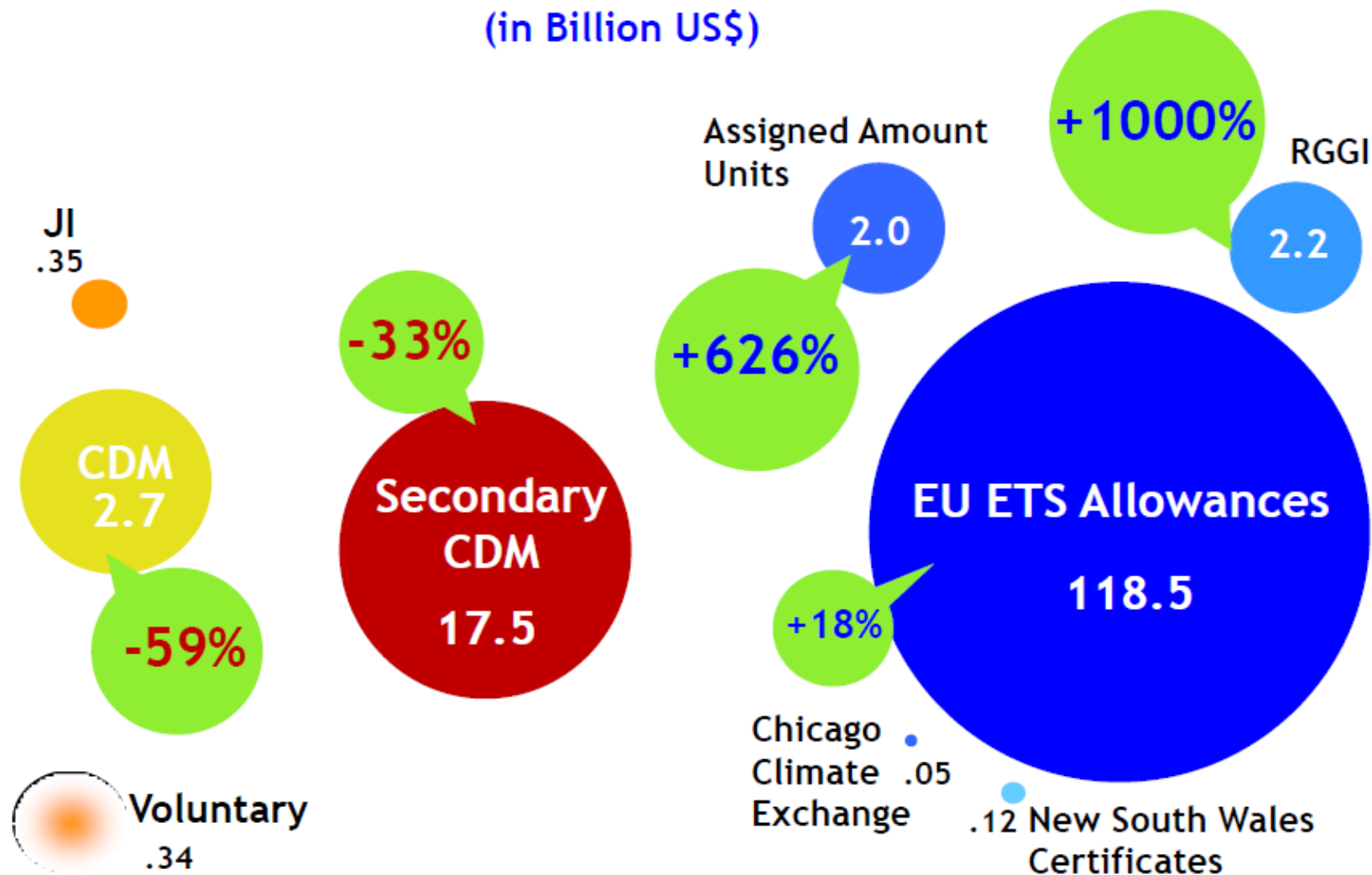
During 2002–08, about 1.9 billion CERs worth US\$23 billion were contracted forward from CDM projects that, if all implemented, would require US\$106 billion in low-carbon investment, primarily in clean energy.

In comparison, sustainable energy investment in developing countries totaled approximately US\$80–90 billion over the same period of time.

State of the global carbon market in 2009

Allowances up, offsets down

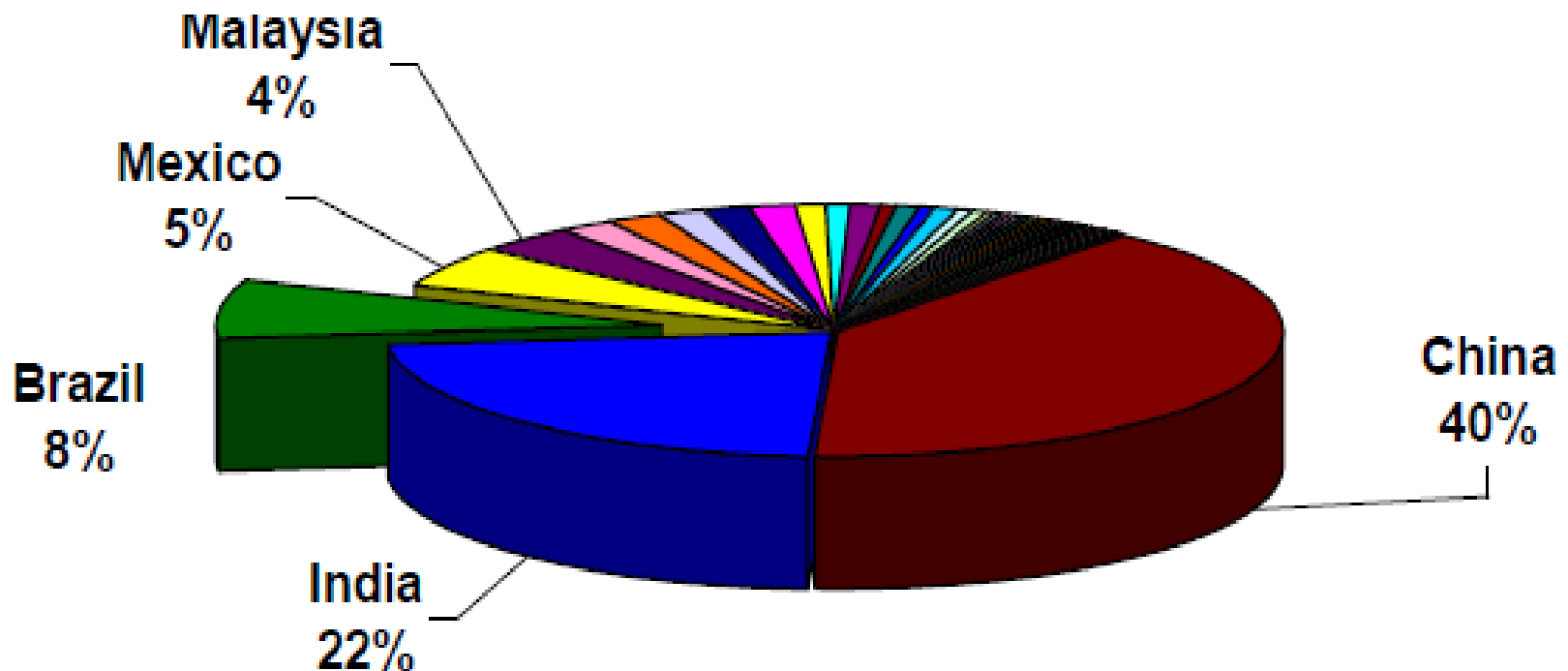
(in Billion US\$)



Brazil's share of CDM Projects

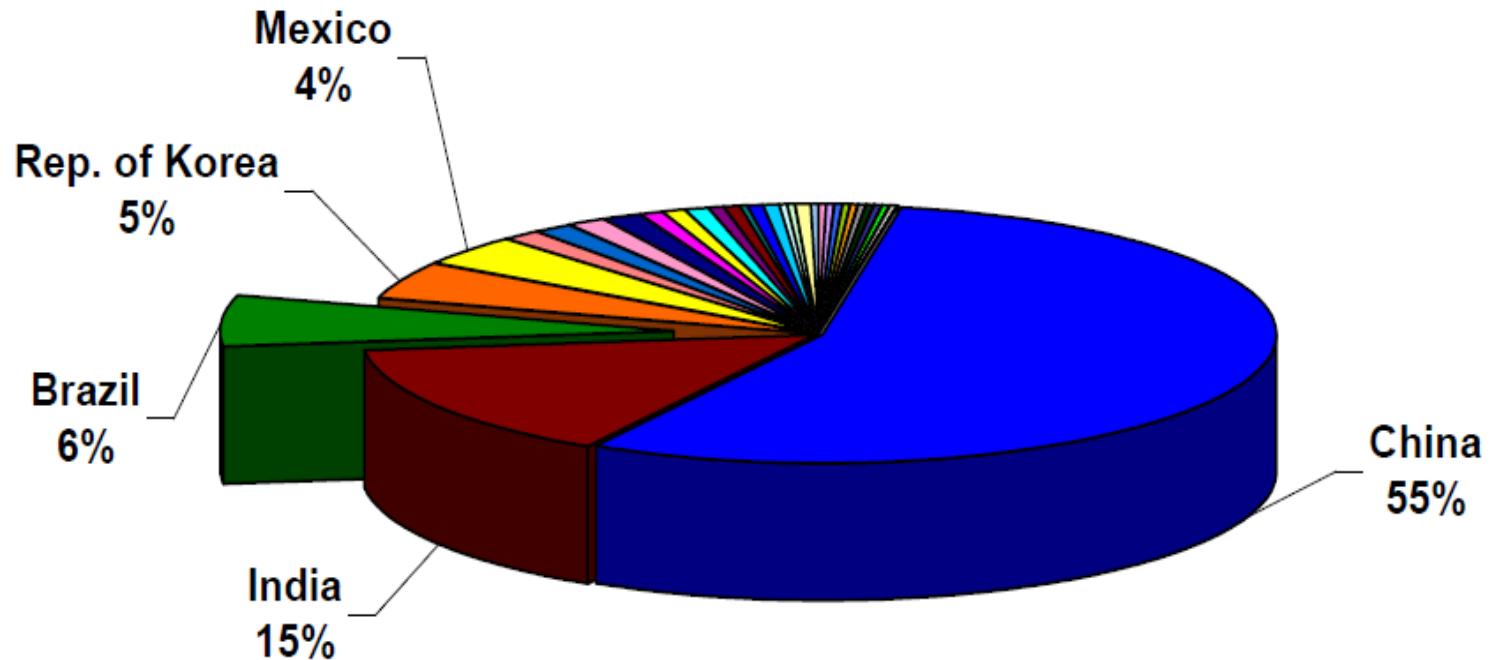
Number of CDM Projects Registered at the Executive Board (EB)

Total 2323 project; Brazil: 175 projects



Brazil's share of CDM Project Reduced Emissions

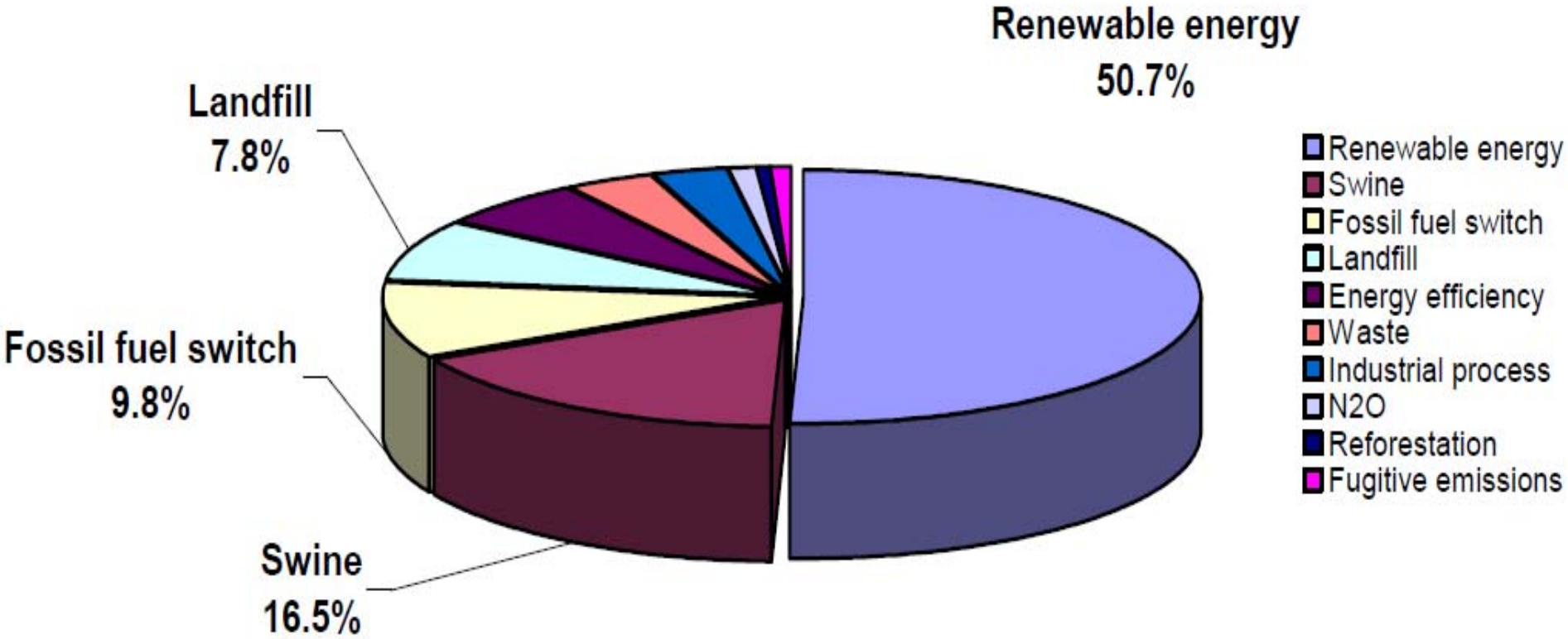
Emissions Reduction of Executive Board Registered Projects for 1st Crediting Period (2,799 million of tCO₂e)



UNEP Risø forecast (Aug 2010) CERs issued by the end of 2012 (only) 981 million tCO₂e

Brazilian CDM Projects by Sectors

Brazil was an early actor in CDM, first registered project
Total of 356 projects; 179 registered; 177 at validation stage

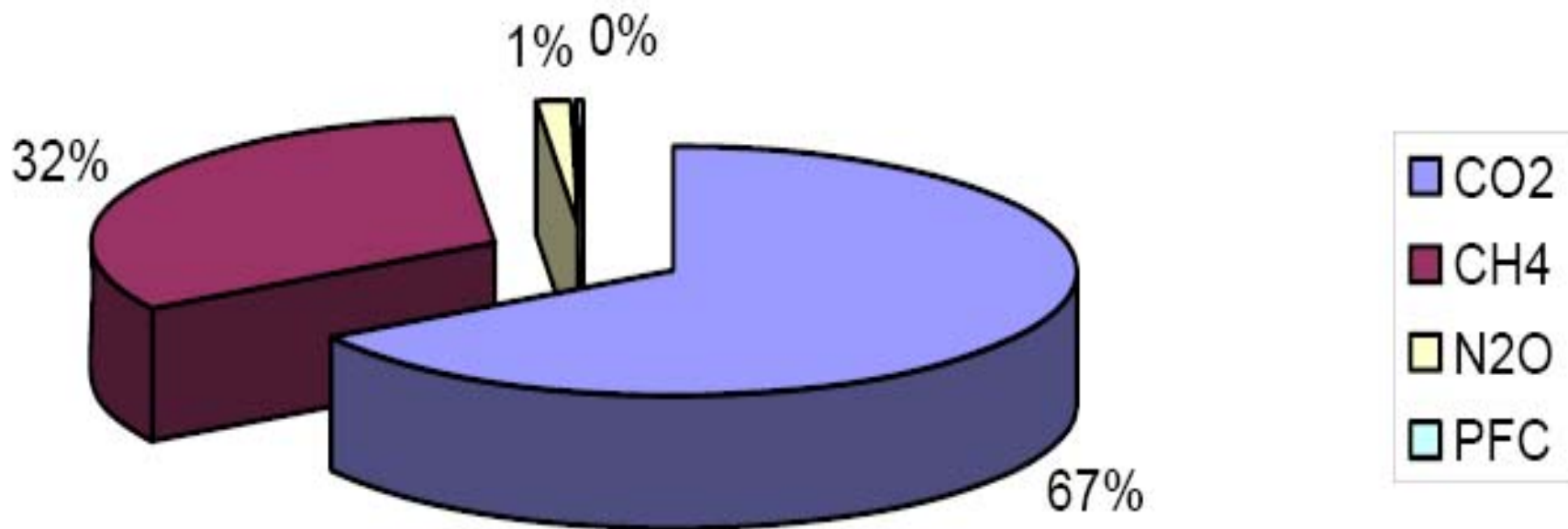


Sources: Brazilian DNA August 2010; UNEP Risø CDM Pipeline Nov. 2010

Brazilian CDM Projects by Sectors

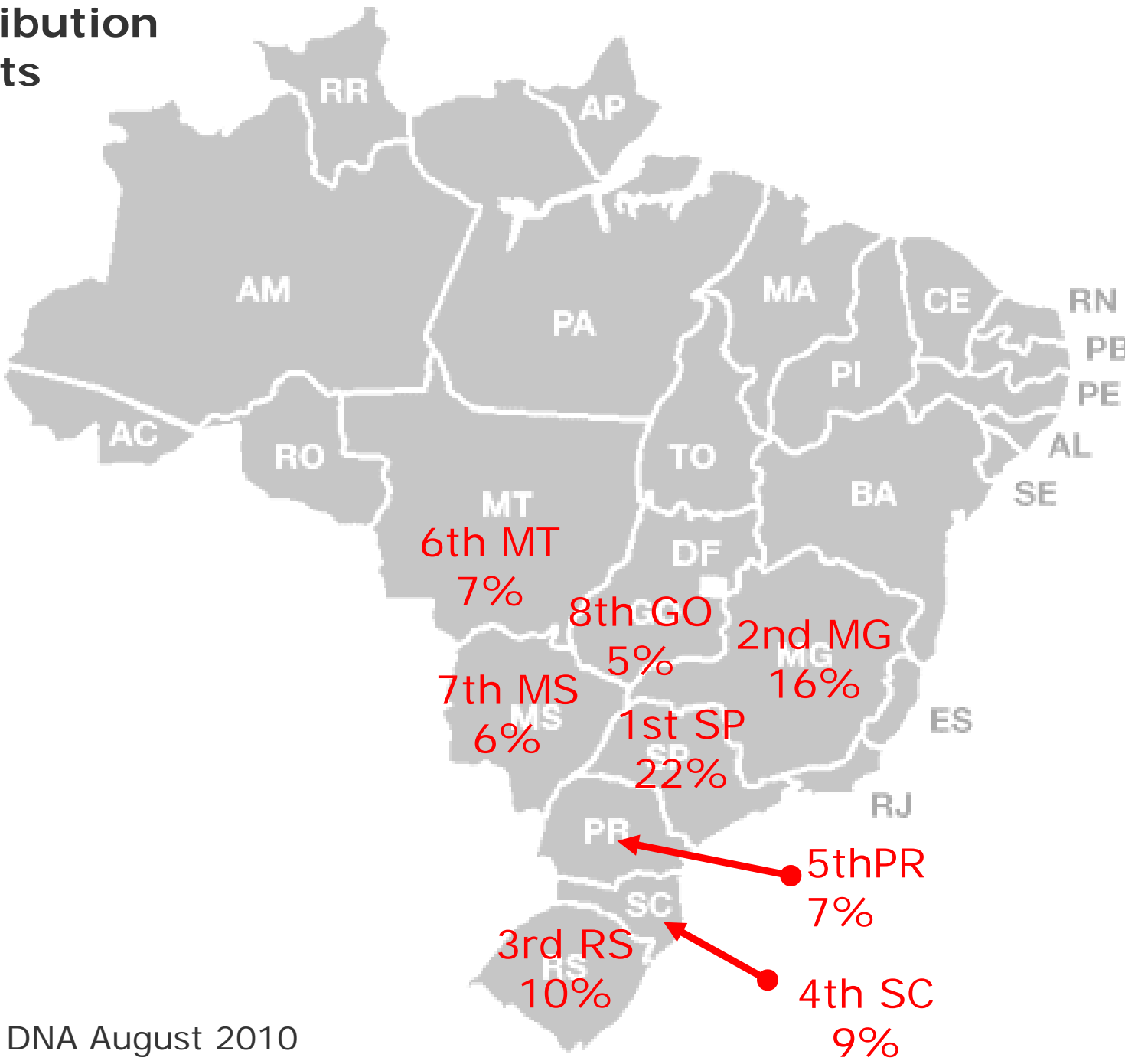
57% of the Brazilian projects are large scale, 43% small scale.

2/3 rds of all Brazilian Projects are on CO₂, and the other 1/3rd in methane gas, only a handful projects deal with N₂O and none with HFC 23



Sources: Brazilian DNA August 2010; UNEP Risø CDM Pipeline Nov. 2010

Regional distribution of CDM Projects in Brazil



Source: Brazilian DNA August 2010

CDM Governance in Brazil

Civil Society

- Benign neglect - NGOs are active but focus on nature conservation and environmental education or social issues
- FBOMS (Brazilian Forum of NGOS and Social Movements for the Environment and the Development) has working group on climate change since 1992 but carbon markets are no priority
- NGOs are interested in carbon as a financing source for their work, but lack capacity and relevant expertise
- High public awareness on climate change
- Less than 5% of projects receive written comments to public consultation letters; mandated by DNA
- University courses on CDM management, University staff work for project developers

CDM Governance in Brazil

Carbon Market actors

- 5 firms dominate the local carbon market, but a large number of small number of project developers have appeared; hard competition but united in interactions vs. DNA
- DOEs - project verifiers dominated by Norwegian DNV (40% market share), German TÜV SÜD (25%), UK's SGS (22%)
- Capital is expensive and scarce so projects rely on own resources or equity; BNDES offers carbon finance funds
- Awareness and interest among internationally owned banks, futures stocks exchange (BMF) tried to establish itself as trading platform for carbon credits; this development cooled significantly with global financial crisis.



Brazilian Regulator

- Interministerial Commission on Global Climate Change CIMGC is DNA, meets every 2 months; Composed of representatives from 11 parts of Government
- Brazil is known and well regarded for its strict interpretation and implementation of the CDM rules. Good continuity of Staff.
- DNA does not see its role to promote carbon market
- Following massive political pressure DNA made U-turn on grid CO₂ emission factor.

CDM Governance in Brazil

DNA under Pressure: Change of ONS grid load factor

- renewable energy to grid projects (ACM0002 methodology) need grid carbon emission factor.
- In July 2005, a working group composed by the Ministry of Mines and Energy and the Ministry of Science and Technology, with the National Operator of the Electricity System (ONS), was set up to identify method.
- Working Group decided in August 2007 to move from 2 sub national grids to 4 sub grids => Only projects in South remained viable.
- Massive critique from project developers, mobilized main stream business lobby and put political pressure to change regulation.
- Public Consultation, December 2007 to 31 January 2008, 21 submissions, 20 critical to 4 sub grid model.
- At extraordinary CIMGC meeting of the CIMGC, a new resolution was approved adopting a single system.

CDM Governance in Brazil

Arguably most important - Human Capital

CDM very important in building up a knowledge infrastructure and a cadre of people with technical and financial experience from working with carbon as a concept and a commodity.

Importance of individuals both in Brazil and for whole system
Ministry of Science and Technology in charge of secretariat
led by Jose Miguez, also very influential in CDM EB

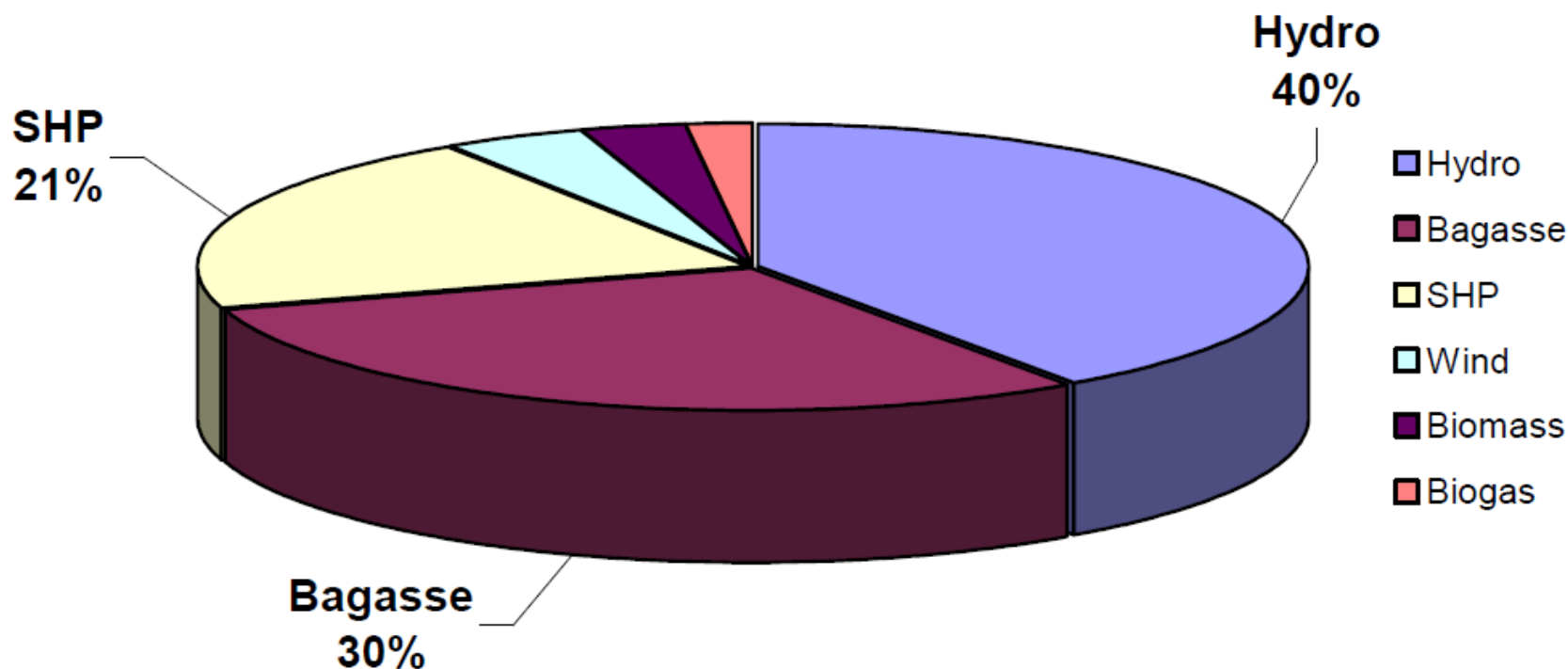
CDM Governance in Brazil

facilitating emergence of new forms of energy

**Installed Capacity (MW) of the project activities
approved by the CIMGC**

Total: 4032 MW

PROINFA: 447 MW



Carbon Governance

Concluding remarks

- CERs are first tradable commodity created by a MEA, CDM has undergone a developing process from explorative public-private partnership toward a new form of market governance
- Limited Tech Transfer but important development of new energy segment (bagasse co-generation)
- Arguably most important role of CDM is how it has been instrumental in fostering know how and expertise on GHG accounting and management (not through IO support)
- Impact of individuals, multilevel governance e.g. Biofuels in CDM



Future of Carbon Market in Brazil



- 40% of transport fuel sold is ethanol from sugar cane and 80% of new cars have flexifuel tech means little scope CDM projects in transport
- CDM is clear reference for domestic policy, e.g. City of Sao Paulo looks at establishing regional emission trading system
- With 75% of Brazil's GHG emissions from Land degradation & Deforestation Despite positive experience of CDM Brazil is hesitant (on good grounds) towards the idea to base a REDD system on tradable permits



Obrigado!

Preguntas?

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