

GHG Standards: the business case for lower income economies

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Better living for all—sustainably

Standards bring certainty and credibility to the new carbon trading sector



Carbon markets provide insight into the global uptake of greenhouse gas standards

Carbon markets doubled in 2008

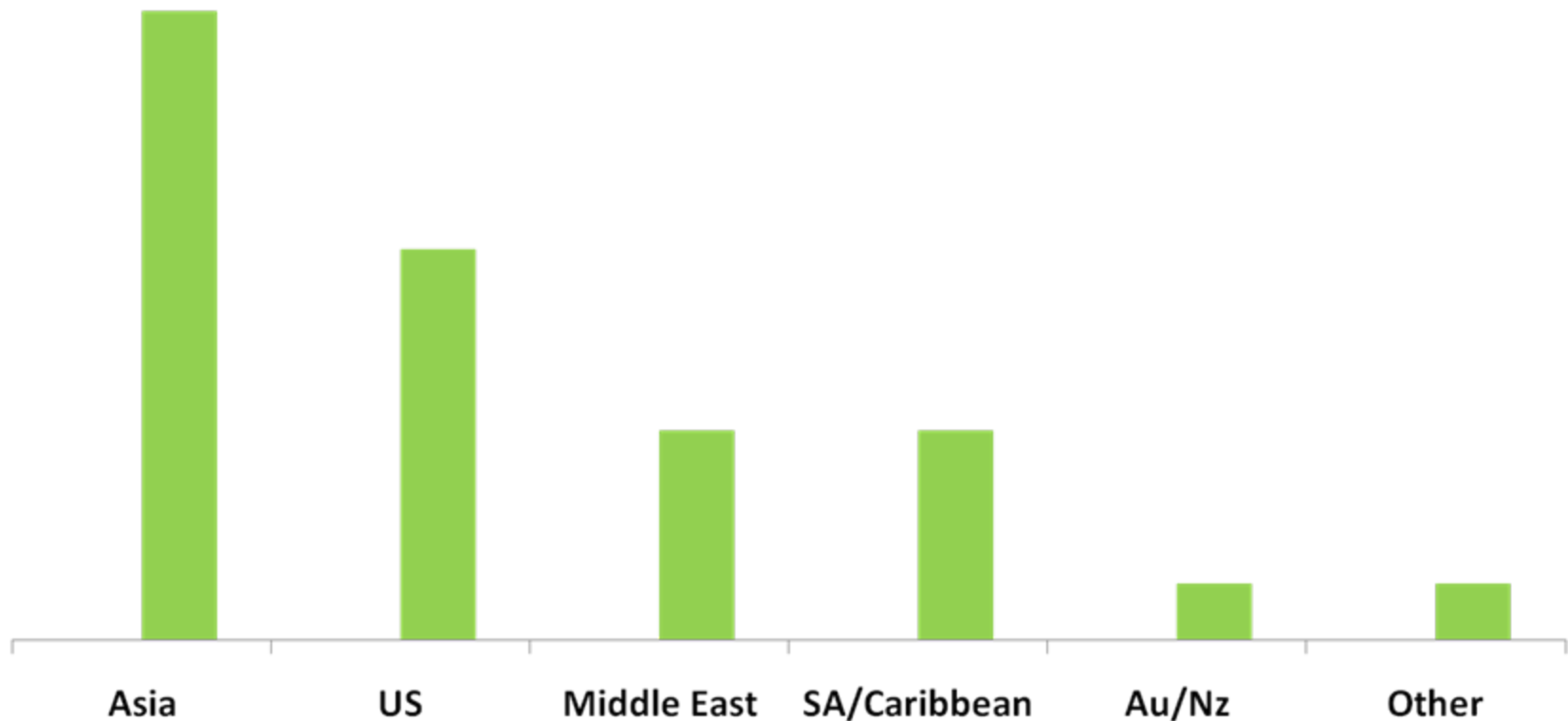
Voluntary carbon markets accounted for 123Mt of CO₂e = \$704.8 million

66% are private funds for investment and resale

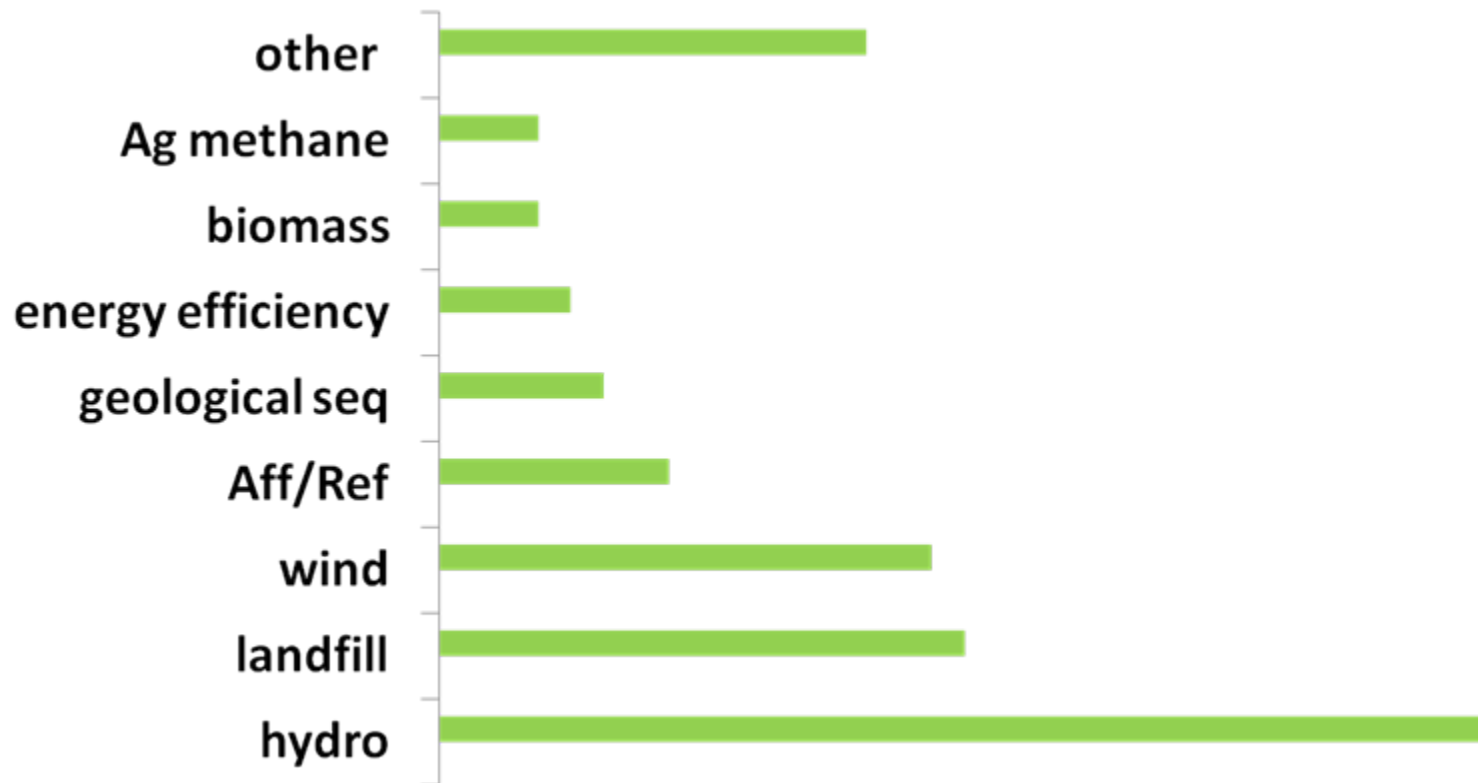
Regulated markets traded 4,090Mt of CO₂e = \$119,483.4 million.

EU Emission Trading Scheme, CDM and JI

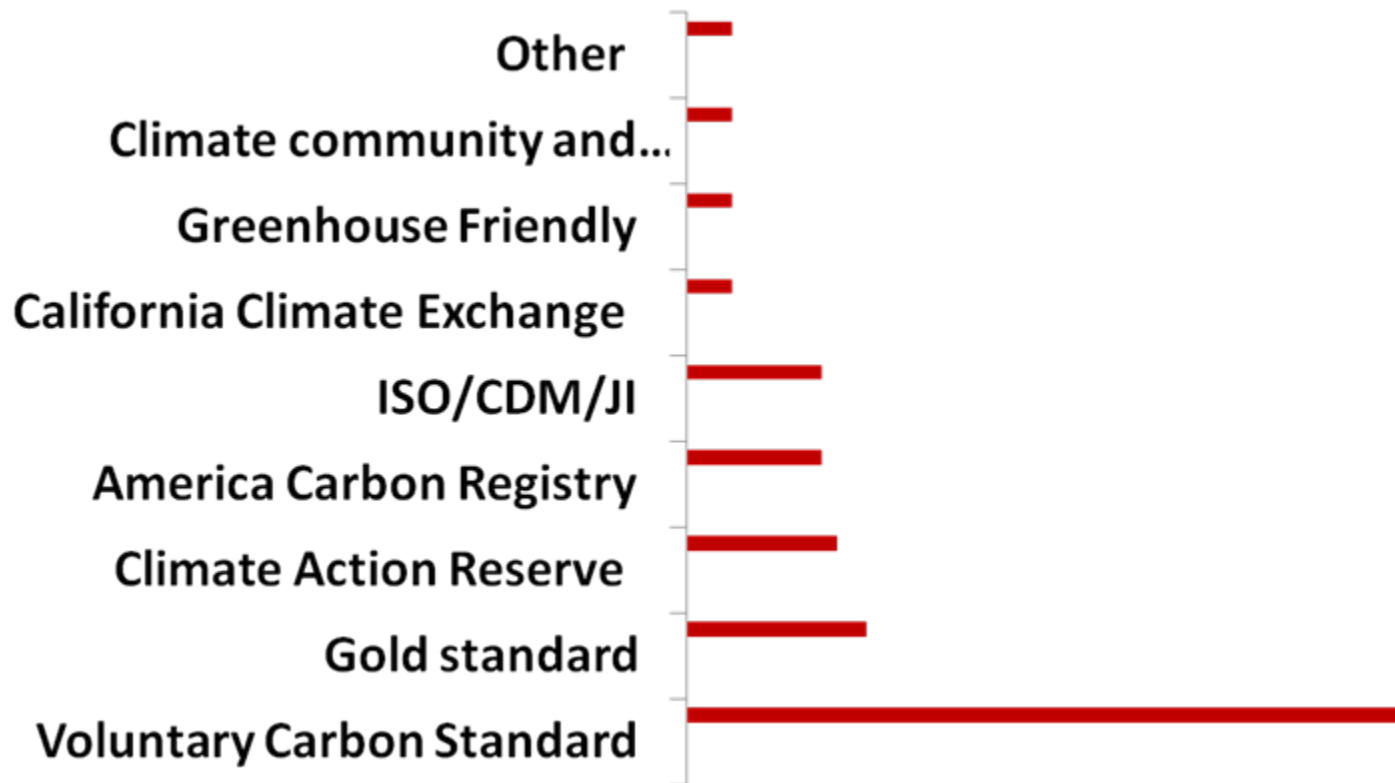
voluntary carbon markets: location of offsets 2008



Voluntary Carbon Markets: transaction volume by project type



Voluntary Carbon Markets: standard utilisation



Clean development mechanism

4,730 CDM projects, worth Euros 212 million are at 'validation, requesting registration, or registered' in November 2009

- Asia/Asia pacific: 3700
- South America/Caribbean: 820
- Africa: 112

To compliment CDM ...

- **Some countries are developing home grown standards to complement the verification requirements of CDM**
- **Example: Crown Standard, Thailand**



Standards go well beyond carbon markets

They are present in every sphere of the low carbon future

Monitoring and reporting on GHG emissions

- **ISO 14064-65: Quantification, Monitoring and Reporting of GHG emissions**
- **Greenhouse gas protocol developed by WRI and WBCSD**
- **Standards rolled out by the carbon trading exchanges**
- **National methodologies derived from CDM**

Carbon foot printing

- **ISO 14067 Carbon foot printing**
- **PAS: Assessing life cycle greenhouse gas emission of good and services, developed by BSI**
- **WRI/WBCSD are expanding the greenhouse gas protocol with product standards**

Fuel Efficiency Standards: a question of energy security and fuel independence?

<u>Regions</u>	<u>Types</u>	<u>Measures</u>	<u>Structures</u>	<u>Test method</u>
US	Fuel	MPG	Cars and trucks	EU CAFÉ
EU	CO ₂	g/km	Overall fleet	EU NEDC
Japan	Fuel	Km/L	Weight based	Japan 10-15
China	Fuel	L/100km	Weight based	EU NECD
California	CO ₂	g/m	Car/LDT1 and LDT2	CAFÉ
Canada	Fuel	L/100km	Cars and trucks	CAFE
Australia	Fuel	L/100km	Overall feet	EU NEDC
Taiwan and Korea	fuel	km/L	Engine size	NEDC

Source: Pew Centre for Global Climate change

Building codes and green buildings

- Plethora of national/regional building codes which integrate energy efficiency and green building design
- ISO suite, BREEM and LEAD
- **More expensive to build but cheaper to maintain and manage**

Renewable energy:

Safety, measurement techniques and test procedures

- Wind turbines**
- Hydraulic turbines**
- Wave, tidal and water current converters**
- Solar PV systems**

There is a bronze bullet ...

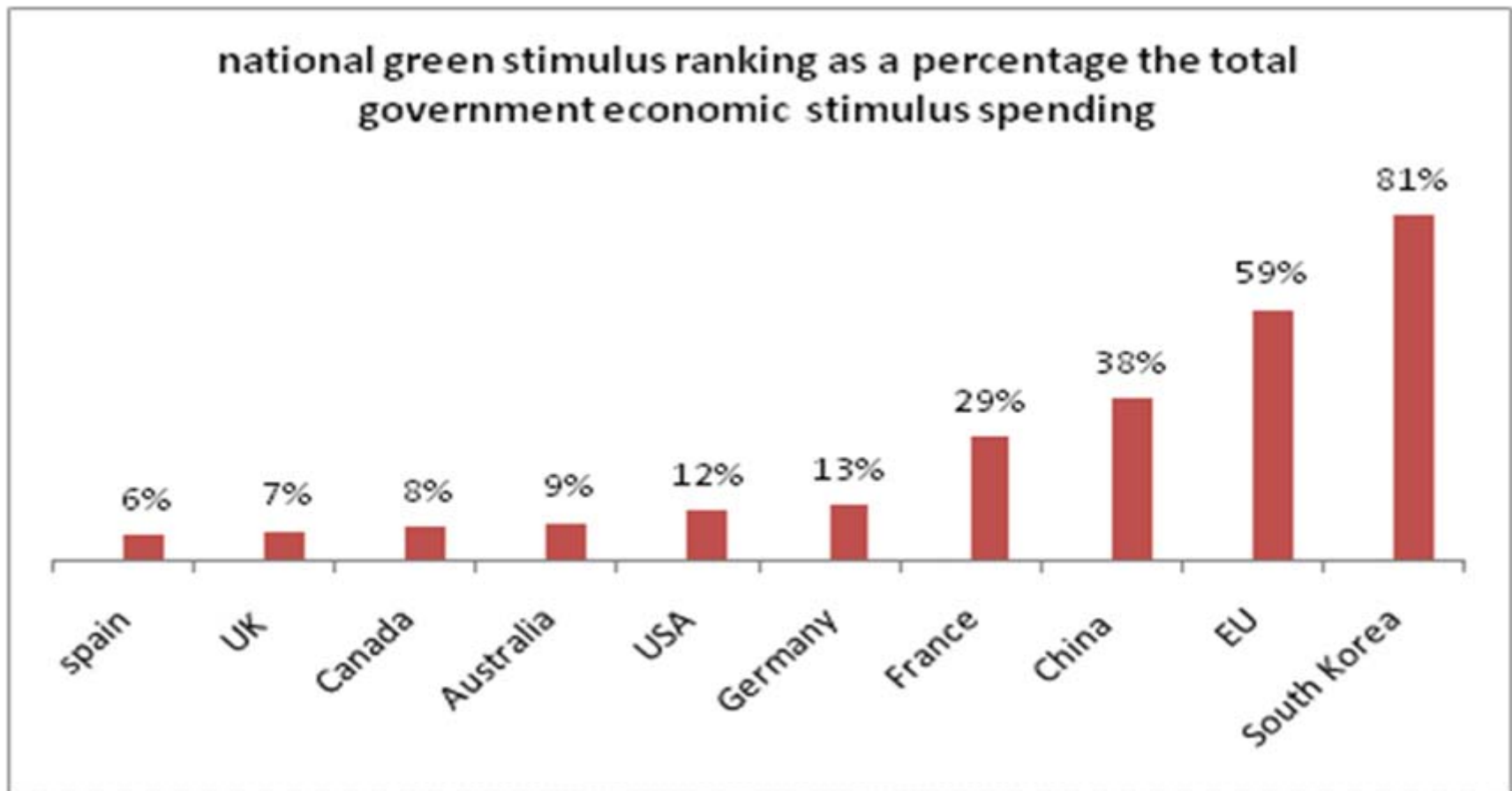
- **Horizon: hybrid vehicles, carbon capture storage, smart grids, large scale solar...**
- **Which technologies will be competitive on a large scale? We wont know till we know!**
- **The 'bronze' bullet: energy efficiency , which costs around 5 cents per kilowatt hour.**
- **Decouple electricity sales and new plant building from utility profits**

South Africa: capacity constraints in the power sector are driving energy efficiency (EE) standards

South Africa: EE improvement of 12% by 2015

- **Grants for EE and load management**
- **Fiscal incentives for EE upgrades**
- **Tax relief for energy saved at a rate equivalent to the cost of renewable energy production**
- **EE labelling**
- **Award schemes**
- **Lighting include *old for new bulb exchange***
- **Compulsory solar thermal for new homes**
- **Minimum EE performance standards for lighting, electric motors and buildings**

Opportunities through economic stimulus



Policies to reap the best of standards



Policy case for standards

- **Cost effective and realistic policies**
- **Provide the means for policy enforcement**
- **Drive green innovation/upgrades across the economy**
- **Prepare national markets to compete on green credentials**
- **Reduce GHG emissions**

Policies to reap the best from standards

- Incentives for compliance across production hubs: **Development Zones in China**
- Meeting compliance costs: **Karnataka, India**
- Tax rebates on infrastructure upgrade: **India and Mauritius**
- Grants for upgrades: **South Africa**

A post 2012 global emissions trading scheme will need to be based on industrialised country allowances and offset credits from lower income countries

If this works, emission reduction will be less of a compromise...

Standards will help prepare for this opportunity

In preparing for post 2012 offset credits, standards will help establish

- **Realistic inventories of GHG emissions**
- **Platforms for voluntary disclosure across private the public sector**
- **Voluntary offset programmes**

Only if it was so easy...

- **Multiple standards bring materially different approaches with different levels of rigour**
- ***Standards fatigue***
- **Markets needs a given level of maturity and accountability to respond to standards**
- **Cost of compliance**

Only if it was so easy...

- **Expand country risk covers -
expropriation, war, civil disturbance,
breach of contract**
- **Funds to hedge currency risks**
- **Address IPR and technology licensing
issues to enable diffusion and scale up**

Standards provide the baseline legitimacy for carbon/energy competitive growth



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