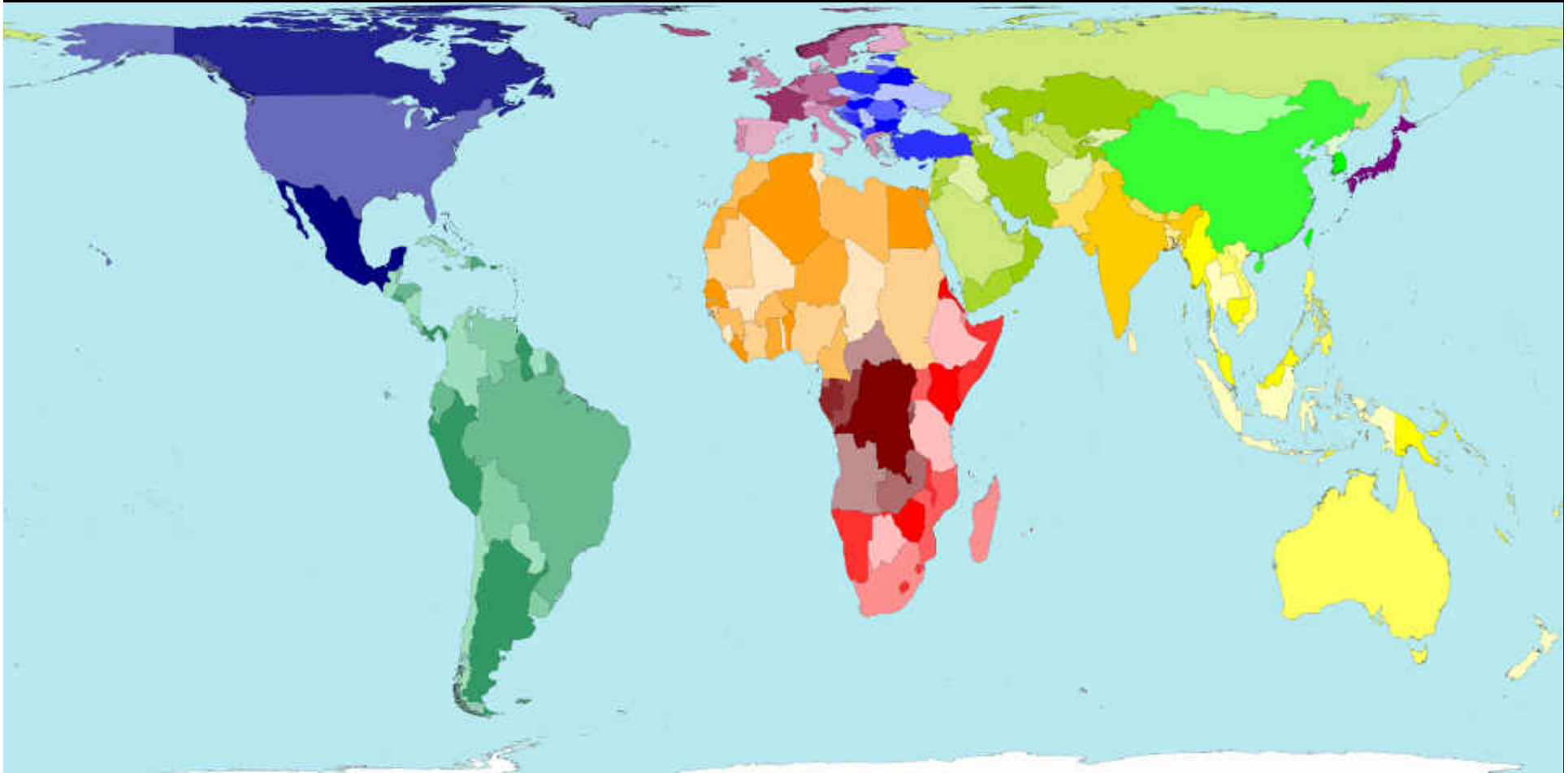


# *Clean Development Mechanisms (CDM) and Sustainable Development in South Countries*

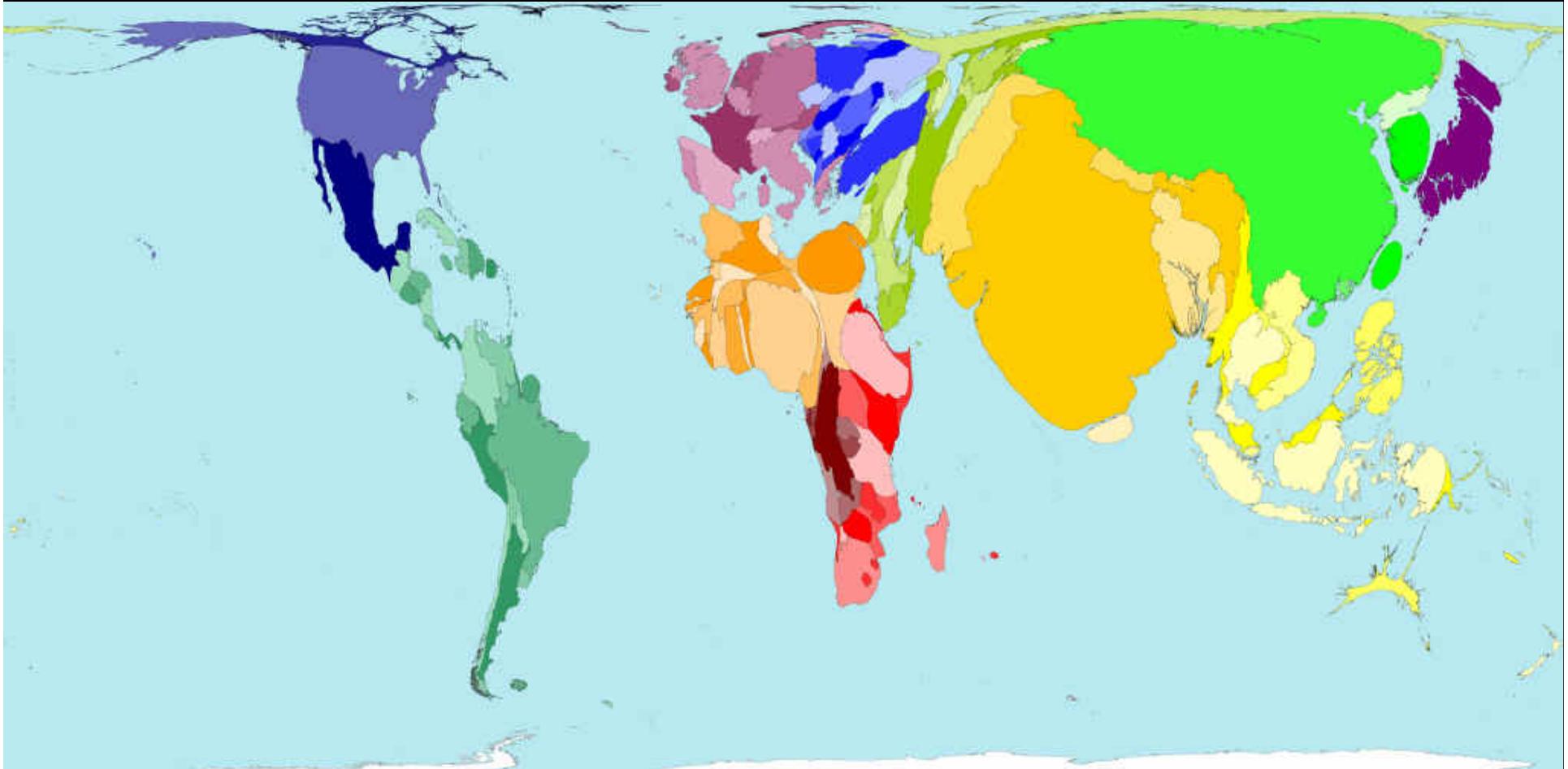


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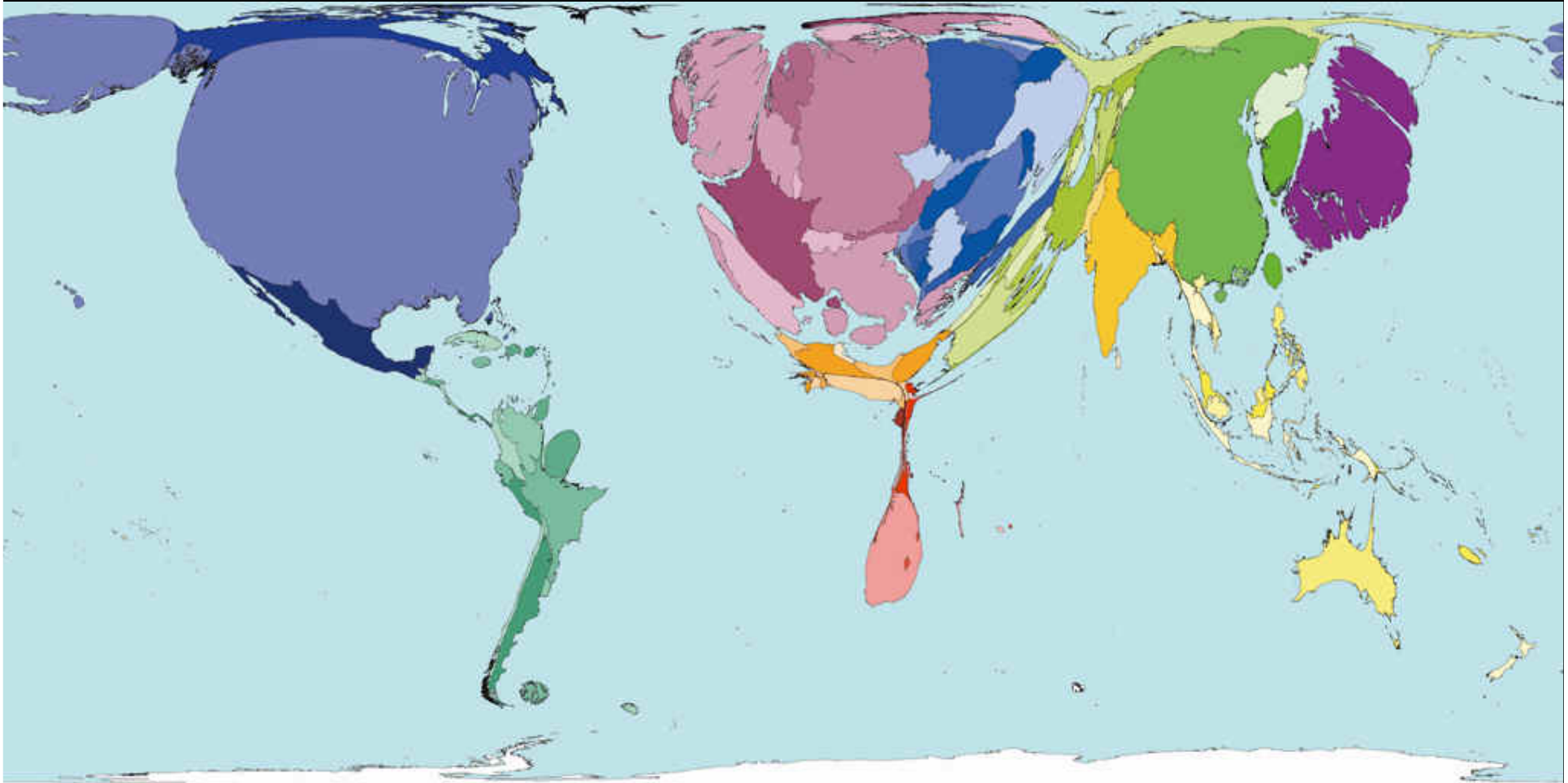
# World map: Land area



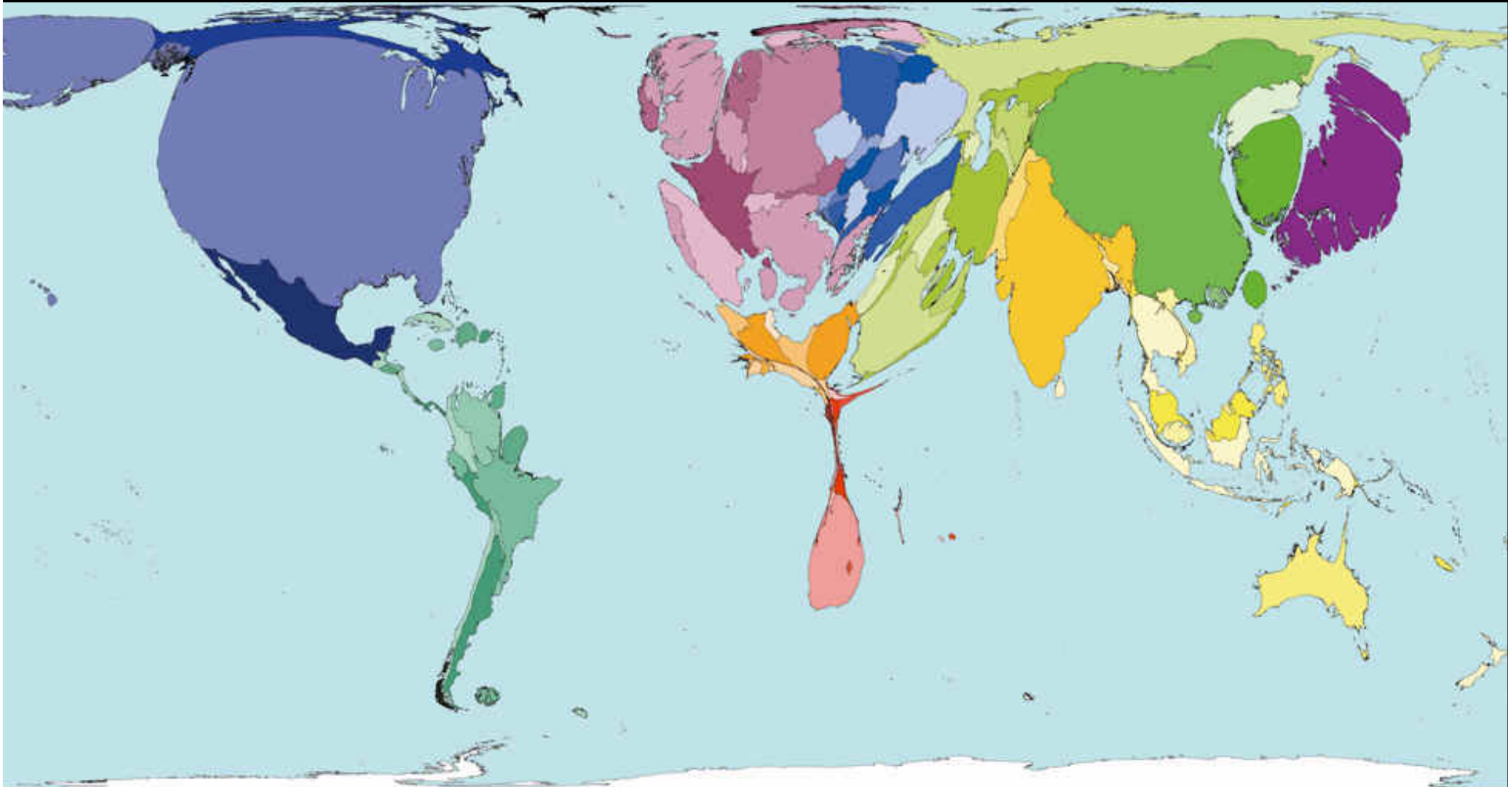
# World map: Human population (2006)



# World map: Carbon emissions (1980)



# World map: Carbon emissions (2000)



# What is CDM ?

The Clean Development Mechanism (CDM) allows emission-reduction (or emission removal) projects in developing countries to earn Certified Emission Reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>.

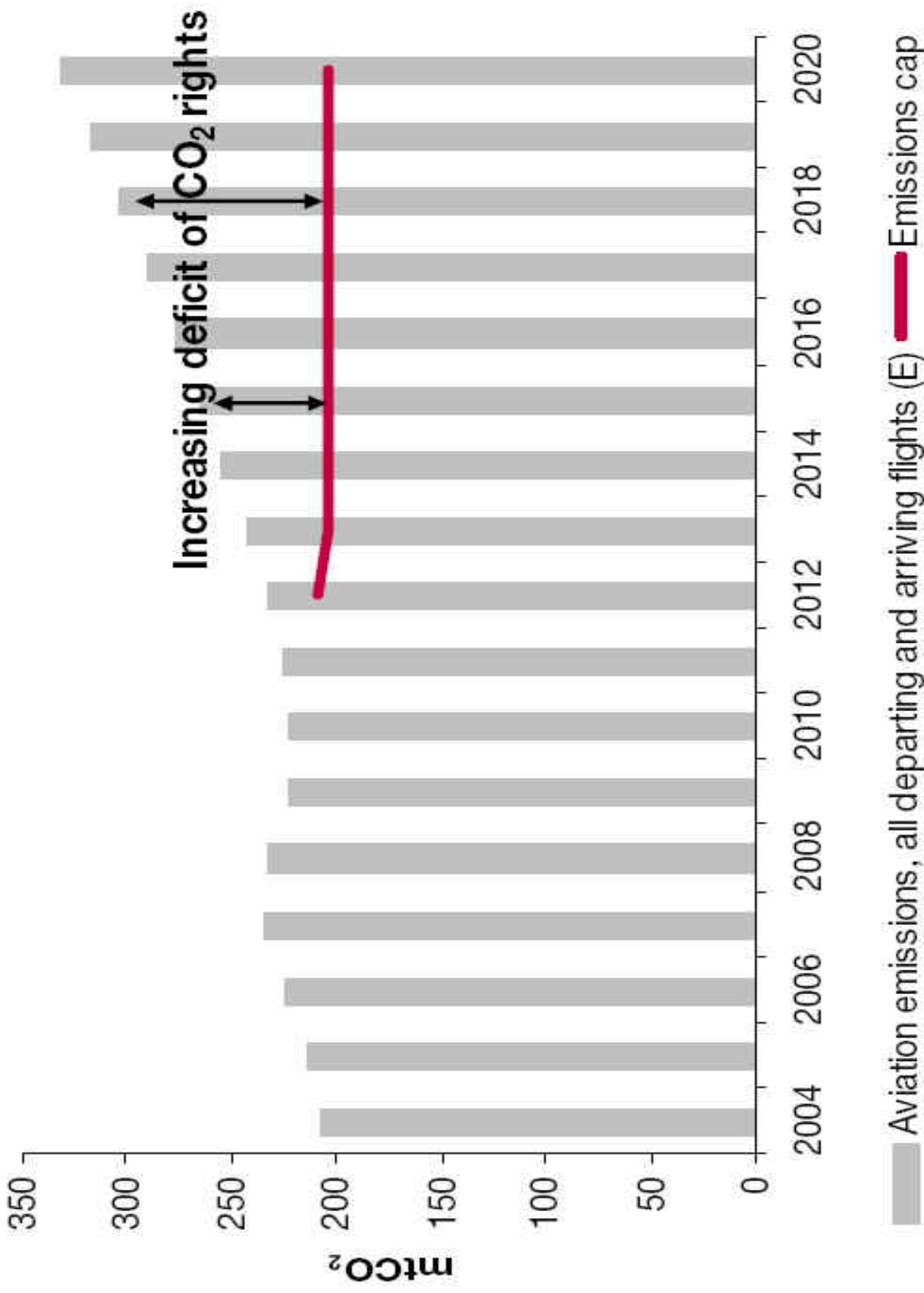
These CERs can be traded and sold, and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol.

# How does CDM works ?

The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets.

Accepted projects must qualify through a rigorous and public registration and issuance process designed to ensure real, measurable and verifiable emission reductions that are additional to what would have occurred without the project.

# AIRLINES SET TO CREATE ADDITIONAL DEMAND FROM 2012 ONWARDS



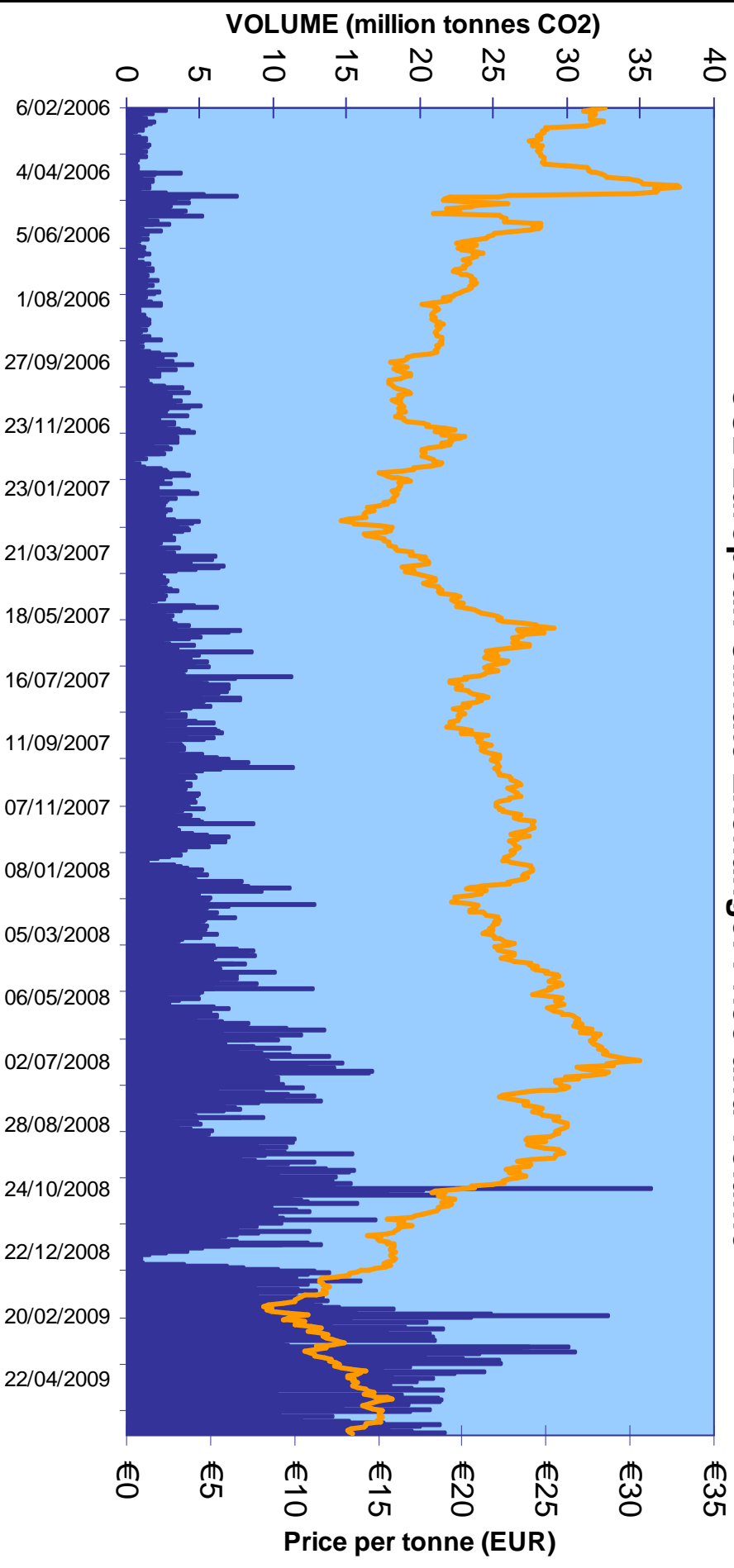


# The price of CO2...

Max: 33 € (April 2006) ; Min: 8 € (February 2009)

Current: 13 € ; 2012: 23 € ; 2015: 30 € \*

CO2 European Climate Exchange: Price and Volume



\* Crédit Agricole, Carbon Research, March 2009

[www.ecx.eu](http://www.ecx.eu), 2009

# How large is the CDM CO2 offset ?

Between November 2004 and May 2009, the mechanism has registered 1653 projects and is anticipated to currently produce CERs amounting to  $303 \cdot 10^6$  tonnes of CO2 equivalent yearly.

The mechanism is extremely interesting since it is the first global, environmental investment and credit scheme of its kind, providing a standardized emissions offset instrument.

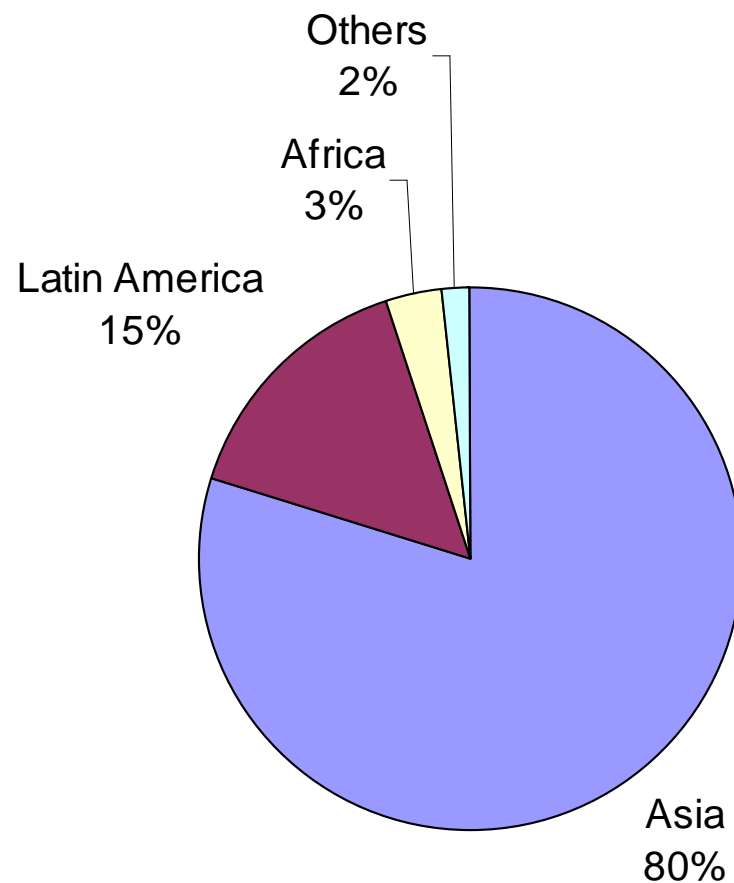
# How large is the CDM CO<sub>2</sub> offset ?

CDM currently produce CERs amounting to 303 10<sup>6</sup> tonnes of CO<sub>2</sub> equivalent yearly.

CO<sub>2</sub> equivalent BENELUX yearly emissions: 357 10<sup>6</sup> tonnes of CO<sub>2</sub>.

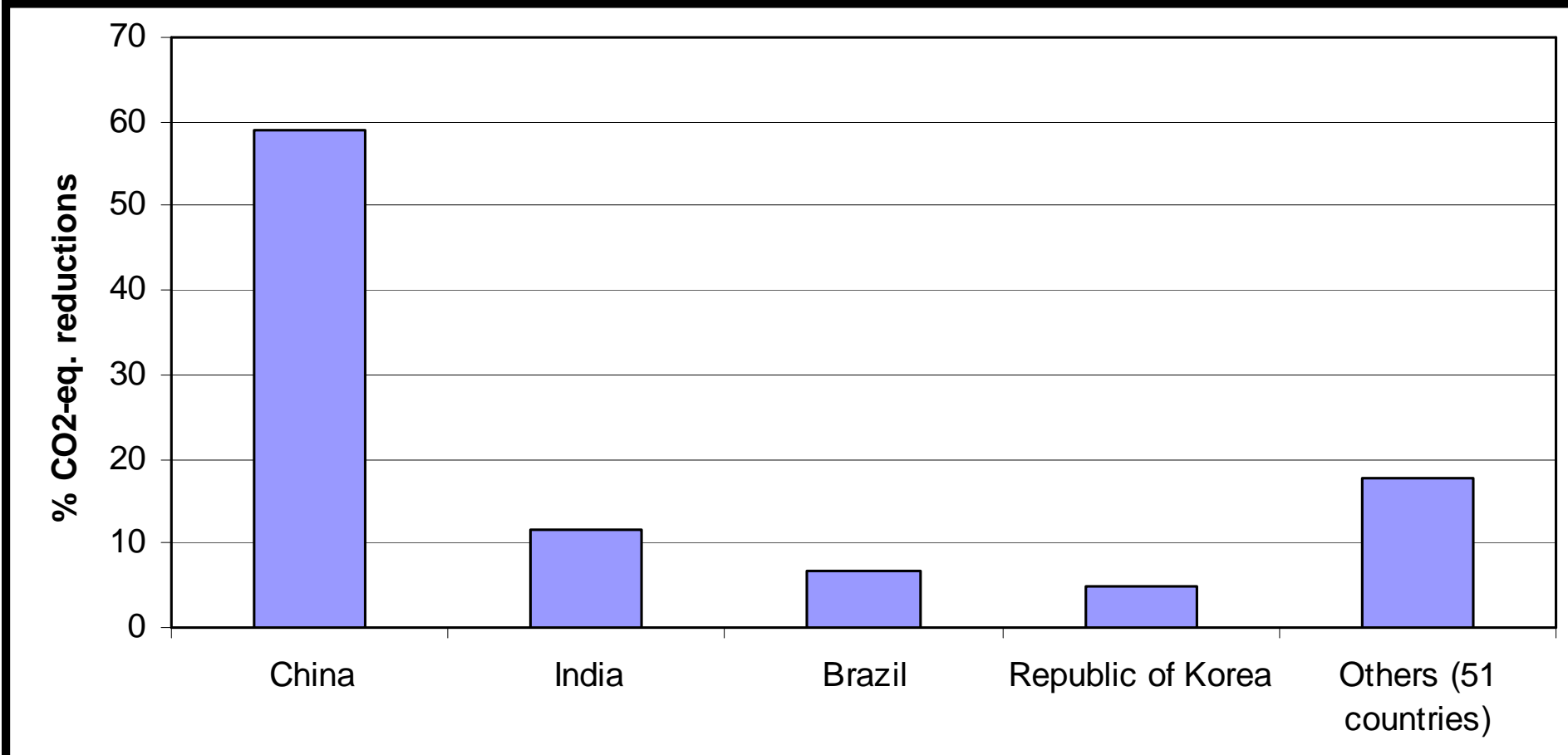
CO<sub>2</sub> equivalent Chinese emissions increase (2002-2007): 3,160 10<sup>6</sup> tonnes of CO<sub>2</sub>.

# Where are CDM hosted ?\*



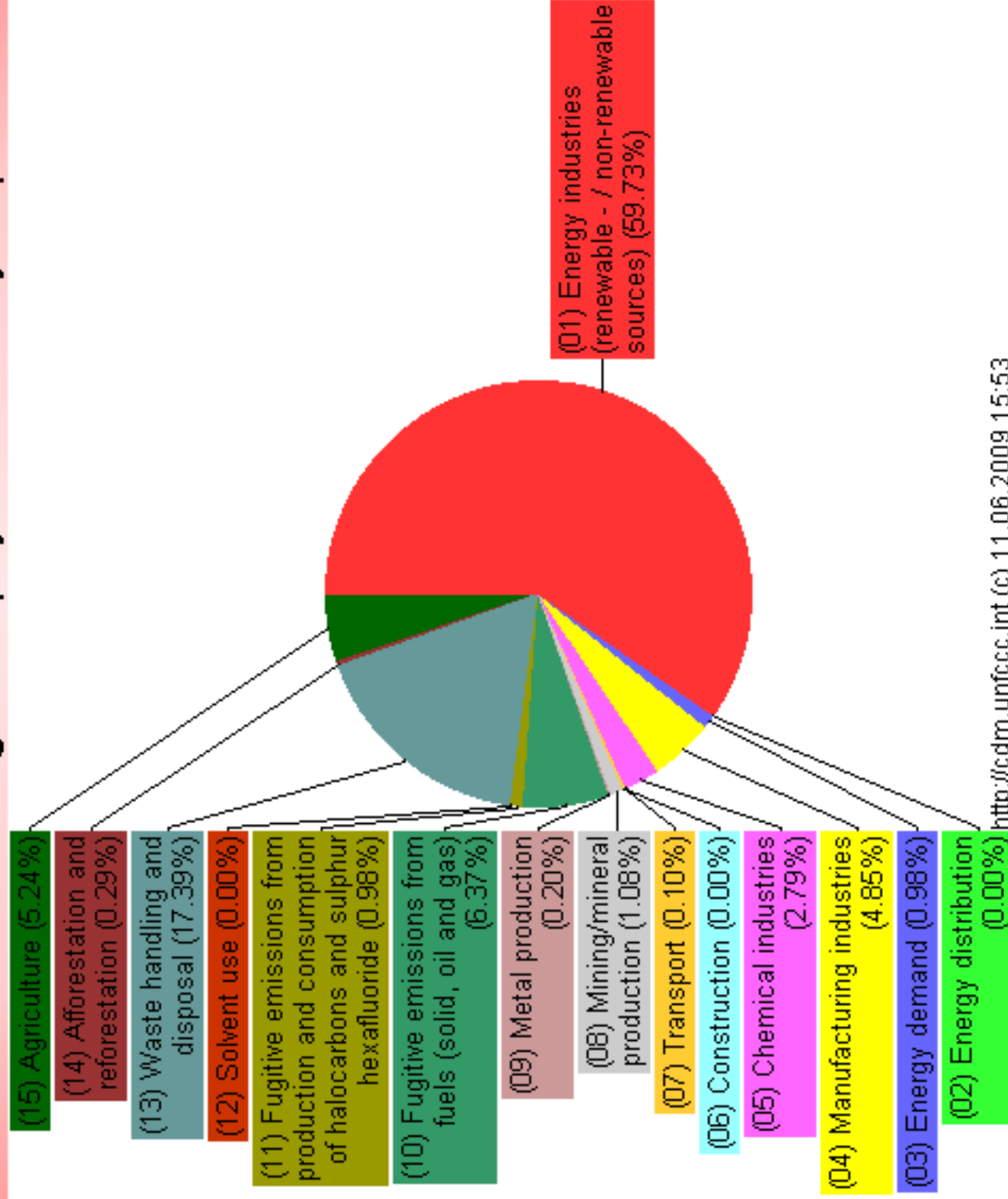
\* In terms of CO<sub>2</sub>-eq. reductions

# Which countries host CDM ?\*



\* In terms of CO2-eq. reductions

## Distribution of registered project activities by scope



# N<sub>2</sub>O Emission Reduction in Onsan, Korea.

- Adipic acid (C<sub>6</sub>H<sub>10</sub>O<sub>4</sub>) is a white crystalline solid used primarily as the main constituent of nylon (nylon-6/6), representing about half of the nylon molecule. It is also used in the manufacture of some low temperature synthetic lubricants, synthetic fibres, coatings, plastics, polyurethane resins, and plasticizers, and to give some imitation food products a tangy flavour.
- Nitrous oxide (N<sub>2</sub>O) is generated as a by-product of the nitric acid oxidation stage and is emitted in the waste gas stream.
- Host country: Republic of Korea
- Annex 1 countries: Private entity: Rhodia Energy SAS (France)
- Yearly CERs (2006-2013): 9,150,000 tCO<sub>2</sub>.
- Total CERs: 64,050,000 tCO<sub>2</sub>.

# West Nile Electrification Project (WNEP)

- The overall objectives of the WNEP are to promote socio-economic development in rural Uganda and to reduce energy-related CO2 emissions causing global climate change.
- The WNEP helps developing the hydropower potential of the West Nile region by installing one run-of-river hydro plant and by operating the power distribution system with a focus on these three regional urban centres (Paidha, Nebbi, and Arua municipalities), in order to connect 4,000 additional customers, who would otherwise operate small, privately-owned generation facilities.
- The proposed project will reduce the demand for diesel fuel and abate GHG emissions (i.e., CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>) from fuel trucks that would otherwise bring diesel fuel from supply centers (3000 km) to consumers residing in the project area.
- Annex 1 countries: Finland and The Netherlands
- Yearly CERs (2007-2025): **39,600 tCO<sub>2</sub>**.
- Total CERs: **760,417 tCO<sub>2</sub>**.



# Forest area change (1990-2005)

## Electrification rate (2005)

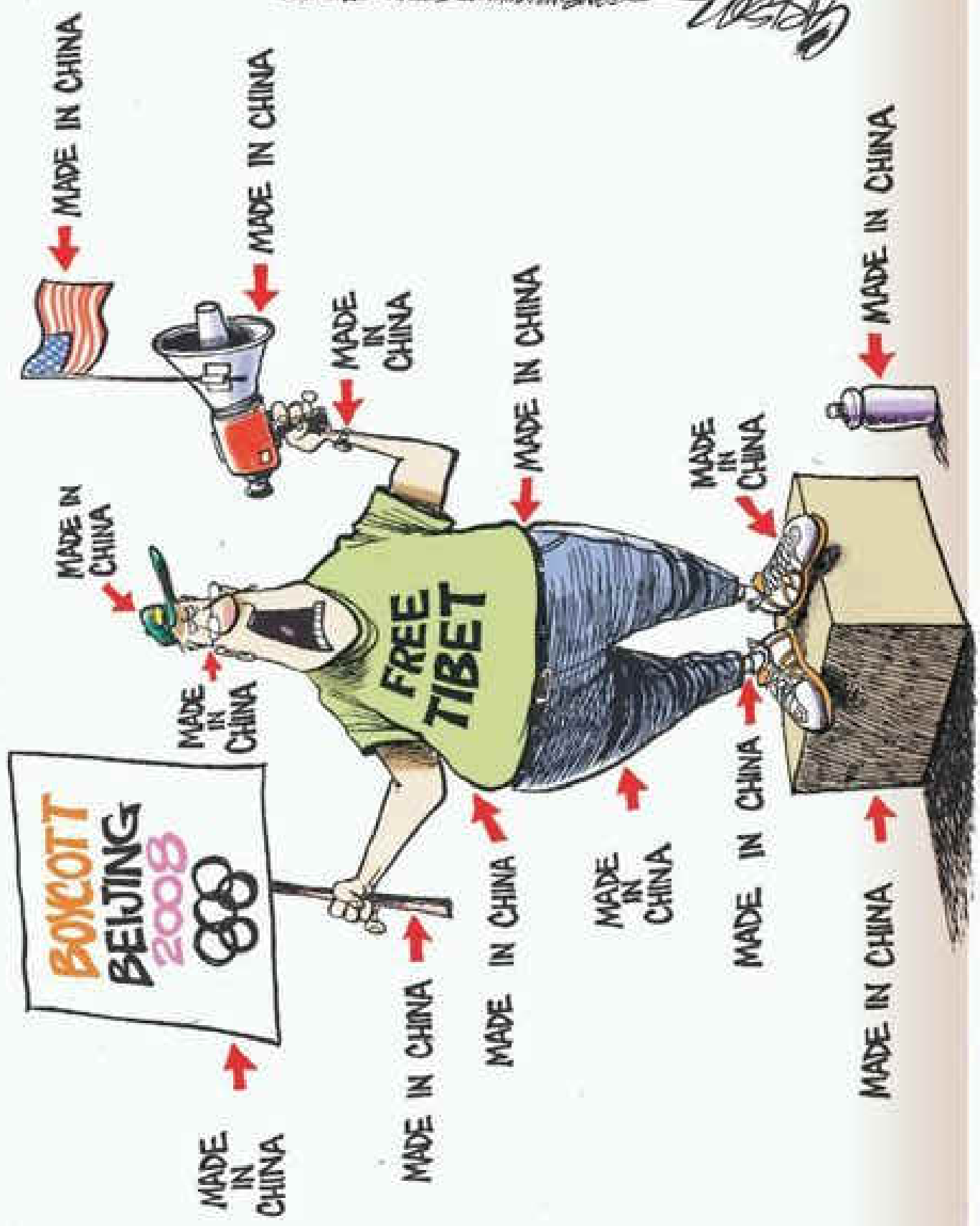
## CO2 emissions per capita (2004)

Zimbabwe	-21%	34%	0,8
Ghana	-25,5%	49%	0,3
Benin	-28,5%	22%	0,3
Niger	-34,5%	<10%	0,1
Mauritania	-36%	<10%	0,8
Nigeria	-36%	46%	0,9
Togo	-43,5%	17%	0,4
Burundi	-48%	?%	?

# And also...

CO2 equivalent Chinese emissions increase (2002-2007):  
**3,160 10<sup>6</sup> tonnes of CO2.**

- half of the emission increase was due to the production of exported products and services for consumption in other countries.
- Another 36% of emission increase was due to capital formulation.
- Only 7% was due to emissions triggered by production for governmental expenditures, and
- 7% was triggered through household consumption.\*



Caplan  
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# ANANAS AVION

**Description:** Originnaire d'Afrique de l'Ouest, il est cueilli sur la plante mûrie à point. Il est donc au summum de ses qualités gustatives. Le transport rapide par avion garantit une saveur exquise, sucrée et acidulée.

**Utilisation:** Dessert, confiture, sirop, glaces, sorbets, mousses, idéal en accompagnement des plats de volaille, de la viande blanche et du poisson.

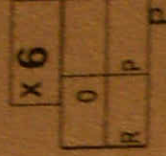
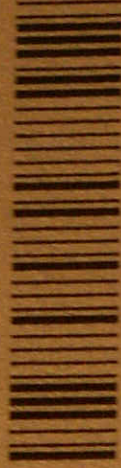


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**ANANAS AVION PIECE  
DELHAIZE**

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