

Carbon trading from Kyoto to Copenhagen

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What is climate change?

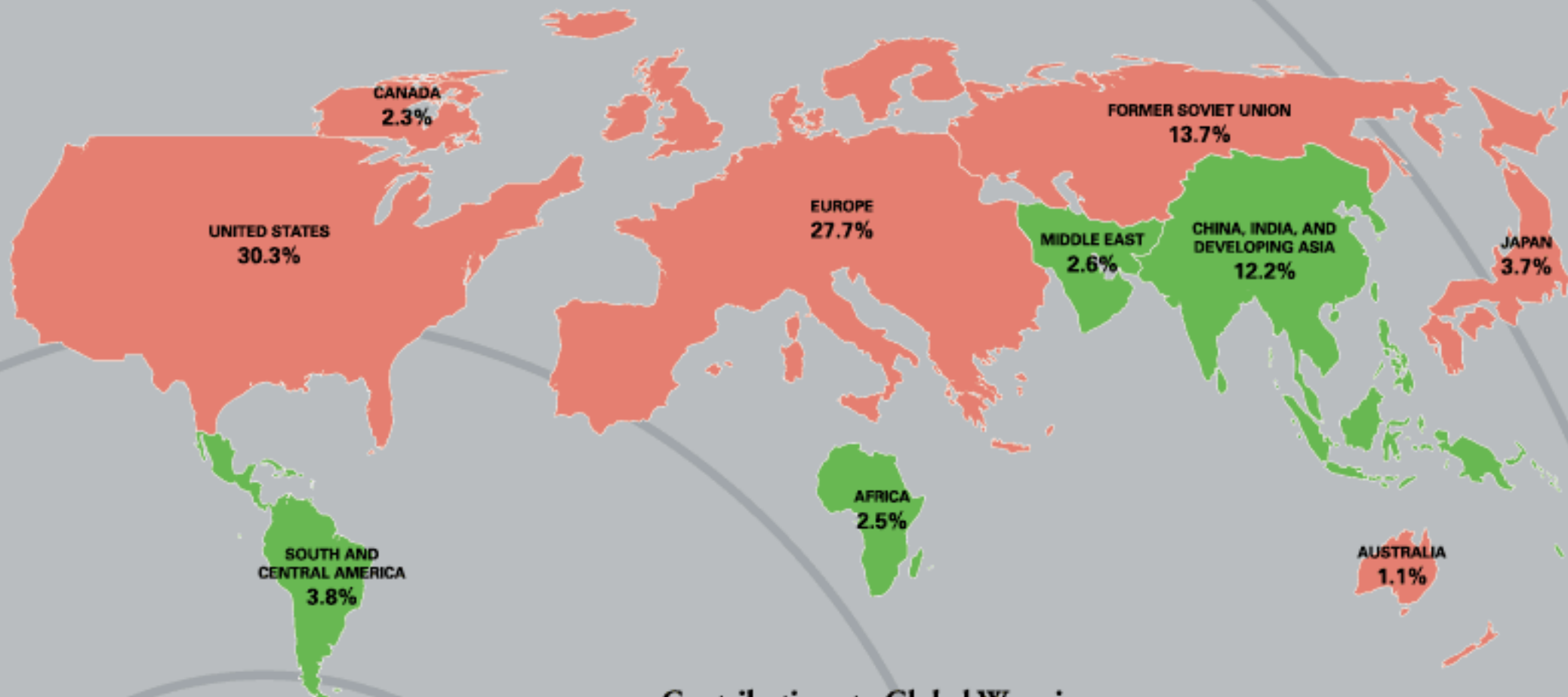
- Climate change is a structural problem that came about, largely, through the continued exploitation of fossil fuels as a cheap fuel source since the industrial revolution
- There is no sign that climate change can be tackled while states continue to pursue further capitalist accumulation (or a bureaucratic disregard for the climate). This is shown, for example, by the continued correlation between GDP growth and emissions growth

What is climate justice?

- Climate change is not simply a “problem of humanity.” Although it affects everyone, it was and is caused by the richest and most powerful people and nations and disproportionately affects the poorest
- “Climate justice” means that those who are most responsible for the problem should clean it up

What is climate justice?

- Responsibility for tackling climate change is not the same as transfers of money for “clean development” projects, which often exacerbate inequalities, foster land conflicts and contribute to water stress and local environmental pollution ... as well as failing to tackle climate change

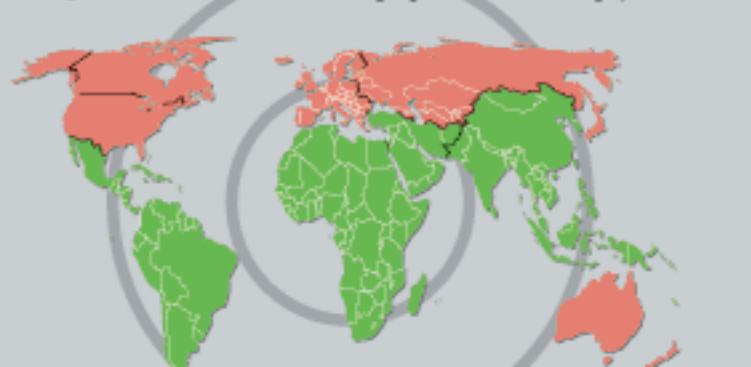


Contributions to Global Warming

Areas are proportional to historic carbon dioxide emissions from fossil fuel combustion, 1900–1999

- INDUSTRIALIZED
- DEVELOPING

EQUAL AREA WORLD: areas are proportional to actual physical sizes



Underlying data sources:
 United States Department of Energy,
 Energy Information Administration
 and the Carbon Dioxide Information
 Analysis Center

World
 Resources
 Institute

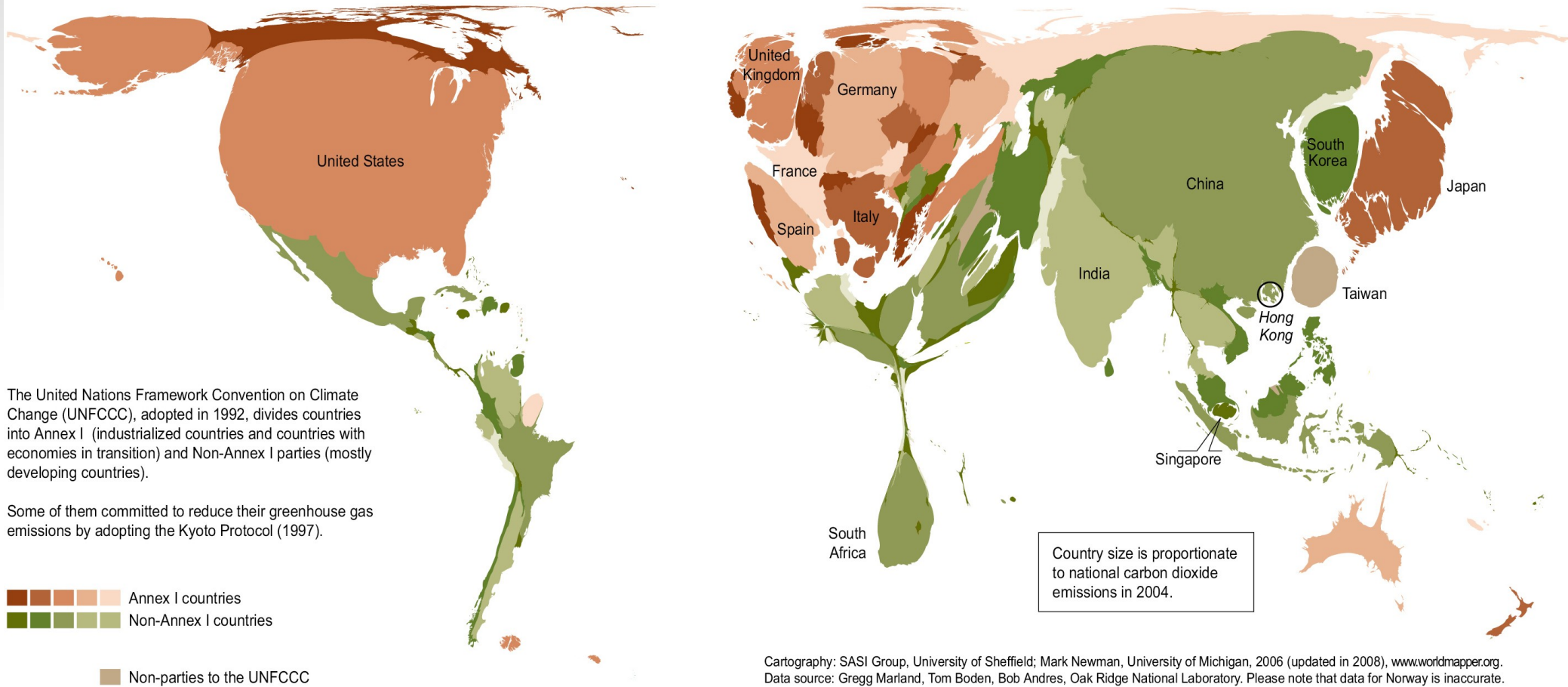
<http://www.wri.org/>
 1-202-729-7600



WRI

Current CO₂ emissions

Total CO₂ emissions
from fossil-fuel burning, cement production and gas flaring



Cartography: SASI Group, University of Sheffield; Mark Newman, University of Michigan, 2006 (updated in 2008), www.worldmapper.org.
Data source: Gregg Marland, Tom Boden, Bob Andres, Oak Ridge National Laboratory. Please note that data for Norway is inaccurate.

UNFCCC

- The United Nations Framework Convention on Climate Change (UNFCCC) emphasises the “common but differentiated responsibilities” of states in tackling climate change
- This means the richest should pay to clean up the mess that they created.
- The Kyoto Protocol sets this goal on its head

Kyoto Protocol

- The 1997 Kyoto Protocol establishes legally binding commitments for the reduction of six greenhouse gases (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons) produced by “Annex 1” (industrialised) countries
- The Annex 1 countries are supposed to reduce their emissions by 5.2 per cent compared to 1990 levels by 2012
- These targets need not be met domestically – they can be “outsourced” through the use of emissions trading

Kyoto Protocol: Annex I

- Annex I countries: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, *United States of America*
- (40 countries and separately the European Union)

Outsourcing

- When production is shifted to non-annex 1 countries, it no longer counts towards Kyoto targets
- China is now estimated to be world's largest CO₂ emitter, but it is estimated that 23 % of its emissions are “exported carbon”

Aviation and shipping

- The Kyoto Protocol target excludes emissions from international aviation and shipping. (These were supposed to be tackled by the ICAO and IMO but were not)
- Shipping accounts for c.5% of the global total of greenhouse gas emission
- International aviation accounts for c.3% and is rising rapidly

Kyoto Protocol

“[I]t is not an exaggeration to brand the mechanisms of the Kyoto Protocol as ‘Made in the USA.’ . . . The sensitivity of the Protocol to the market was largely instigated by the negotiating positions of the USA.”

Michael Zammit Cutajar,
former Executive Secretary, UNFCCC, 2004

Kyoto Protocol

- **Emissions Trading:** industrialised countries purchase carbon credits from countries with spare capacity to help meet their commitments
- **Joint Implementation:** emissions credits for industrialised countries that implement cooperative emissions reductions projects
- **Clean Development Mechanism:** Northern countries receive credits for implementing projects that are supposed to reduce emissions in the South

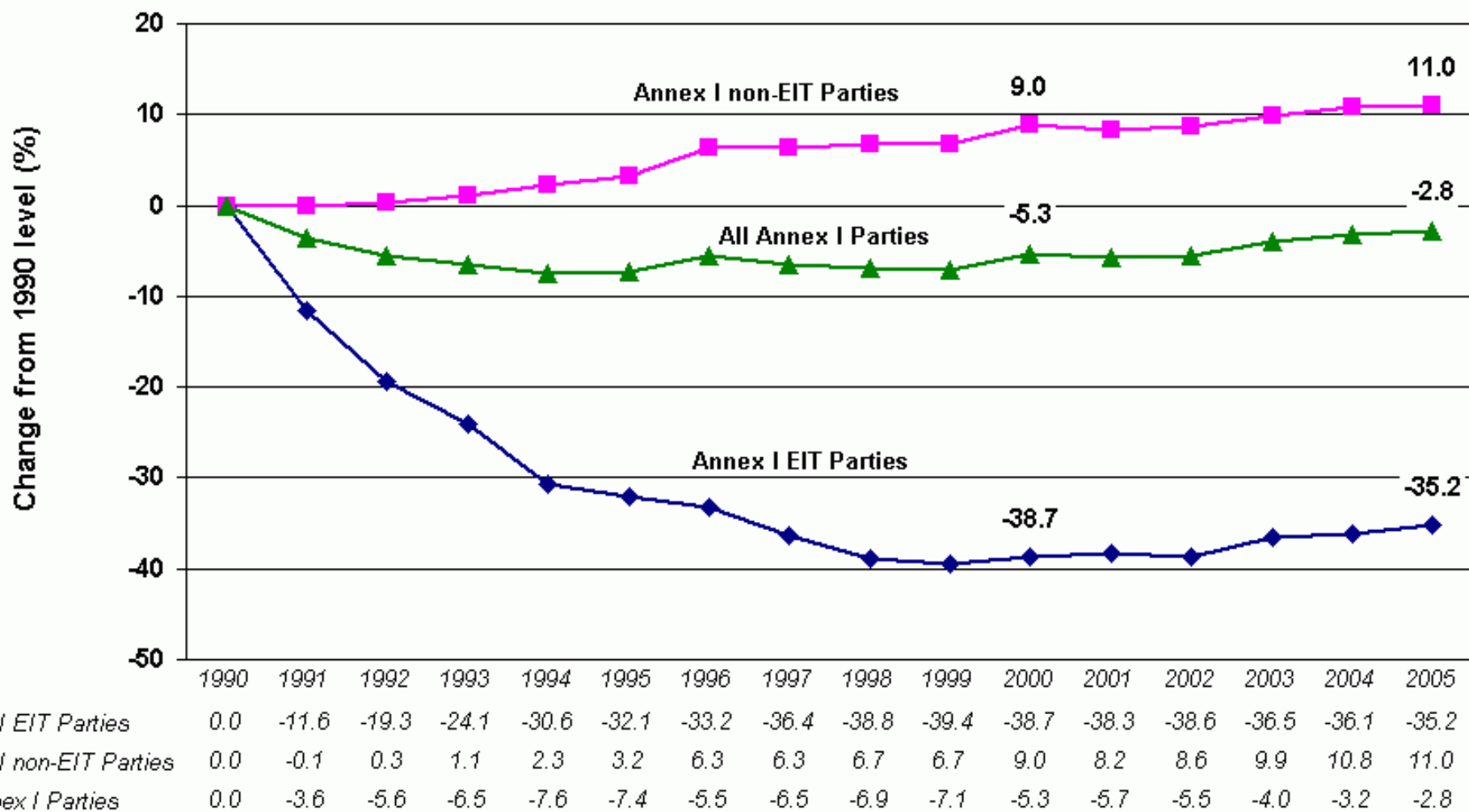
Kyoto failed

- 11 of the past 13 years rank amongst the warmest since global records began in 1850
- Between 2000 and 2005 CO₂ emissions grew by 3.2% per year.
- This is four times faster than in the preceding 10 year period
- The growth of emissions from fossil fuels has trebled since the 1990s

Kyoto failed

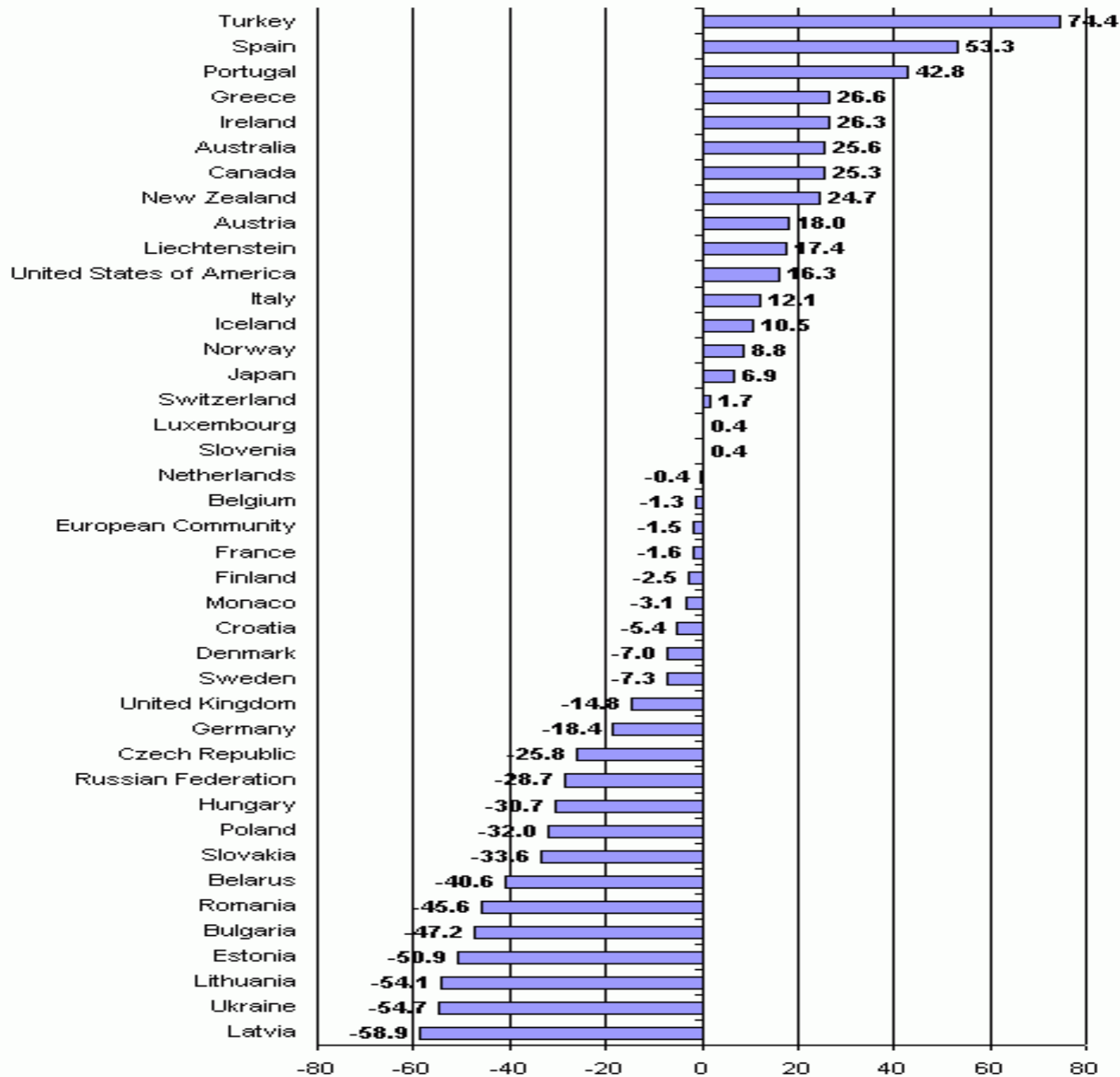
- Emissions are projected to rise further: IEA World Energy Outlook predicts a 53 per cent increase in global primary energy demand by 2030
- Most countries with greenhouse gas reduction targets have *increased* their emissions since 1990 – a fact that is covered over by the inclusion of “economies in transition” in Annex 1

Greenhouse gas emissions excluding LULUCF



Note: (1) The Parties that are allowed to use a base year other than 1990 have also provided data for their respective base year as per COP decisions 9/CP.2 and 11/CP.4. These Parties and their base years are Bulgaria (1988), Hungary (average of 1985-1987), Poland (1988), Romania (1989) and Slovenia (1986); (2) For Croatia, Greece and Turkey, data from their 2006 submissions are used; for 2005, 2004 values are used as the latest available estimate; (3) The 1991 data for the Russian Federation used in this graph are obtained by the interpolation of the 1990 and 1992 data. The reported 1991 value for the emissions from the energy sector appears to contain a technical error (182,722.3 Gg compared with 2,382,402.0 Gg in 1990 and 2,017,364.5 Gg in 1992).

Change in GHG emissions excluding LULUCF (%)



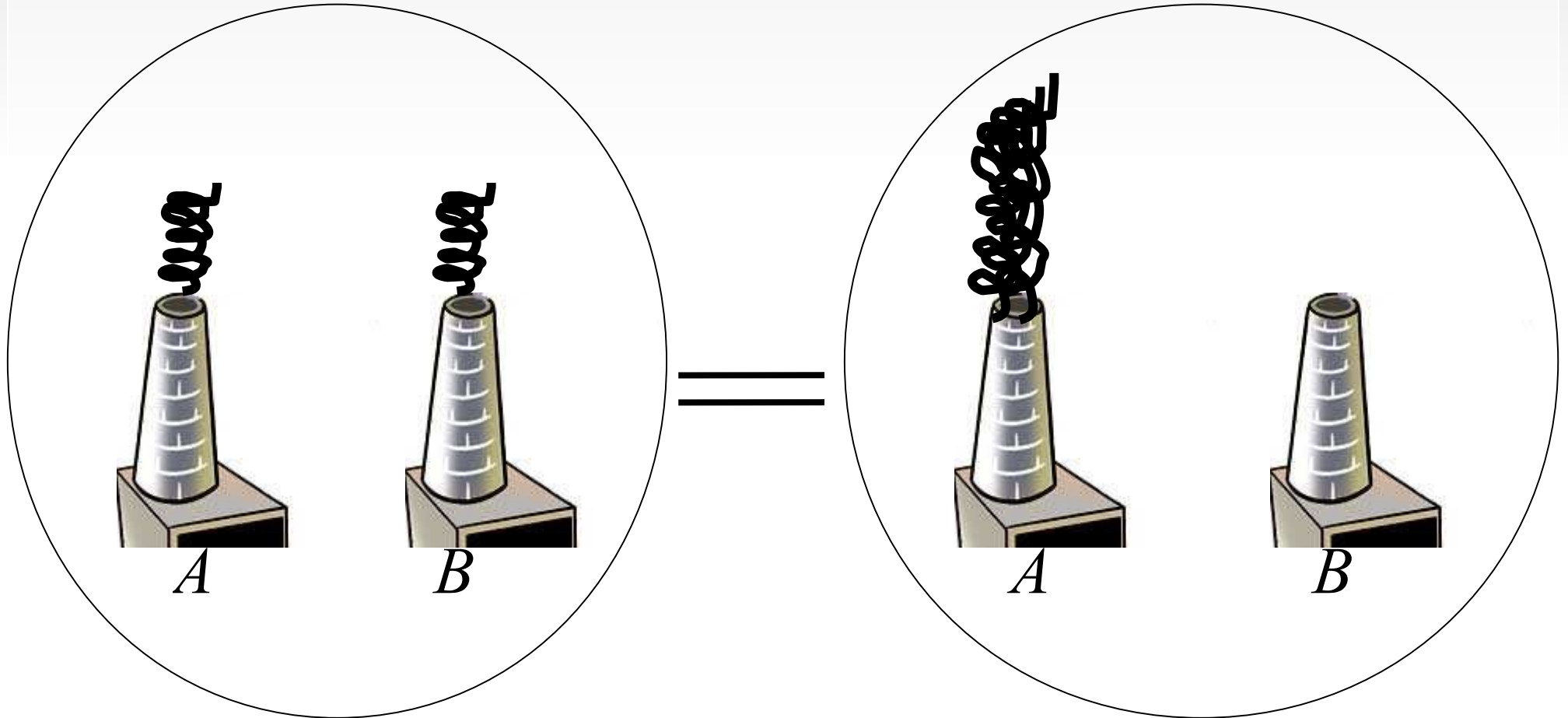
Source:
UNFCCC,
2007. Data as of
2005

Note: (1) The Parties that are allowed to use a base year other than 1990 have also provided data for their respective base year as per COP decisions 9/CP.2 and 11/CP.4. These Parties and their base years are Bulgaria (1988), Hungary (average of 1985-1987), Poland (1988), Romania (1989) and Slovenia (1986); (2) For Croatia, Greece and Turkey, data from their 2006 submissions are used; for 2005, 2004 values are used as the latest available estimate.

Carbon trading

- Two types:
- Cap and trade – eg. EU Emissions Trading Scheme
- Offsetting – eg. Clean Development Mechanism (CDM)

Cap and trade



Cap and trade

- Governments hand out permits to pollute (or “carbon credits”) to major industries. Instead of cleaning up its act, one polluter can trade these permits with another who might make “equivalent” changes more cheaply
- *The “cap”* is a legal limit set on levels of permissible pollution within a given time period. The caps are supposed to reduce over time and thereby restrict pollution

Cap and trade

- *The “trade”* component does not reduce any emissions. It simply allows companies to choose between cutting their own emissions or buying cheaper “carbon credits,” which are supposed to represent reductions elsewhere

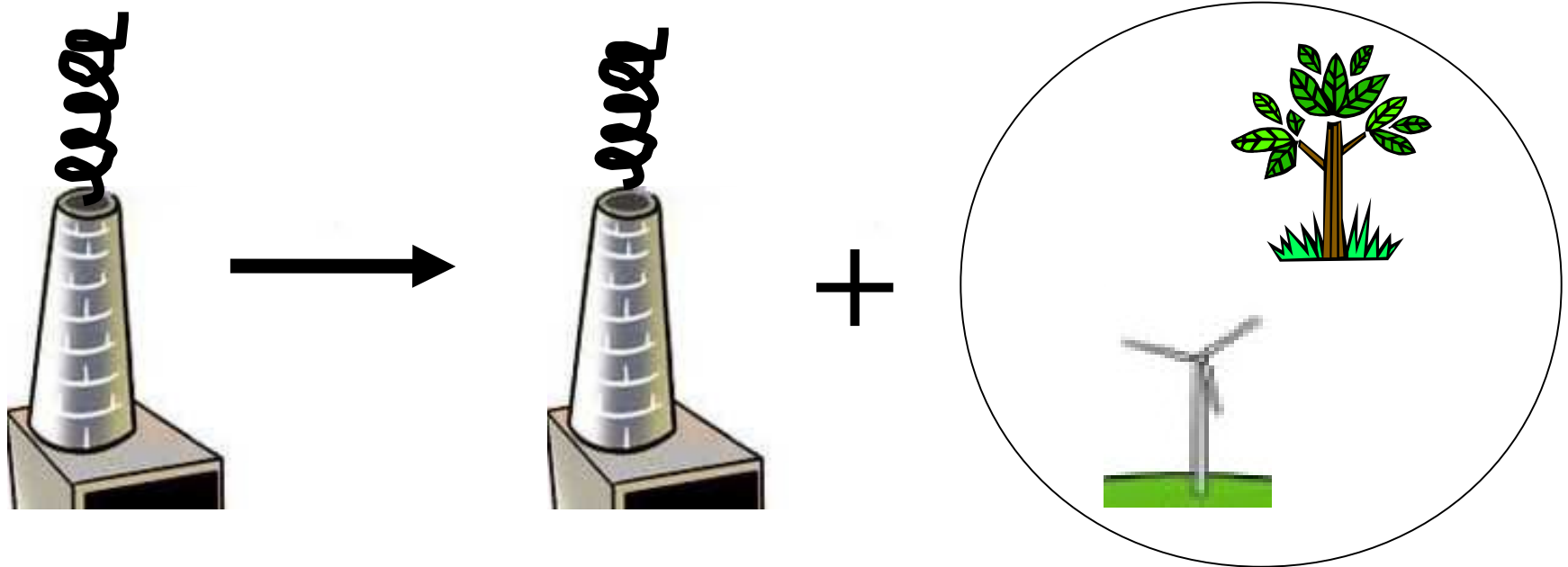
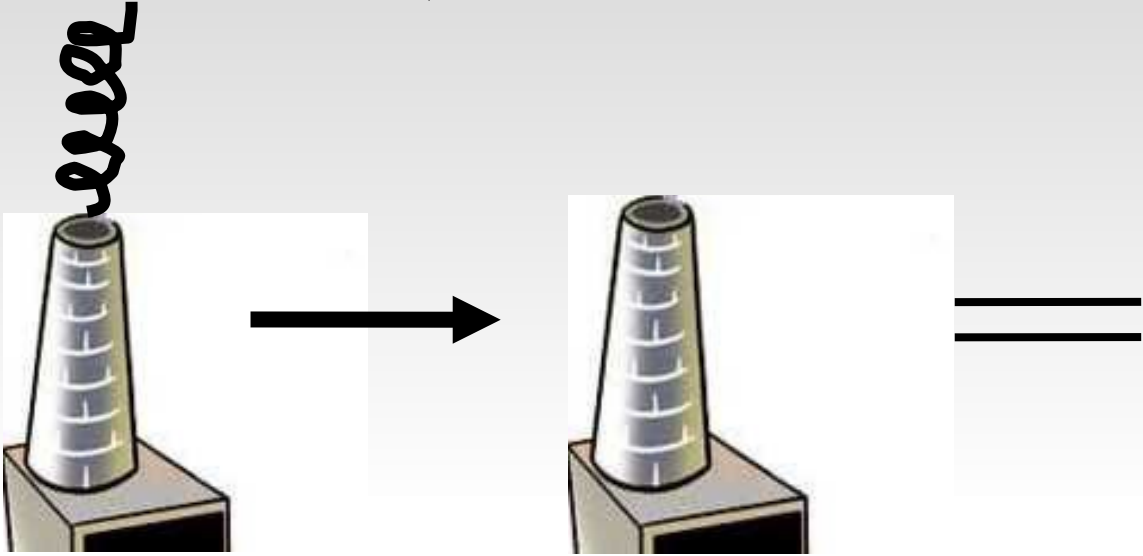
Cap and trade

- *Trading looks for holes in caps.* The cap is only as tight as the least stringent part of the whole system. This is because credits are sold by those with a surplus, and the cheapest way to produce a surplus is to be given too many credits in the first place (“hot air” credits as a result of caps being set too high). The aim of trading is to find the cheapest solution for polluting industry, and it is consistently cheaper to buy “hot air” credits than to actually reduce emissions

Cap and trade

- *Over-allocation as a rule.* Most cap and trade markets use projections of historical emissions provided by industry itself to calculate the initial caps.
- Industry has a clear incentive to overstate its past emissions to gain more credits. As a result, cap and trade markets start out with too many credits.
- This was true of the United States Acid Rain Program, the Los Angeles Region Clean Air Markets (RECLAIM), the Chicago Emissions Reduction Market System (ERMS), the Regional Greenhouse Gas Initiative and the EU Emissions Trading Scheme (EU ETS).

Carbon offsets (CDM, JI and Voluntary)





**HOW DO YOU
PLAN TO MAKE
A LIVING?**

**I'VE SET UP A
WEBSITE WHERE
PEOPLE CAN BUY MY
CARBON CREDITS!**

**THEY CAN TAKE
AIRPLANES AND DRIVE
SUVS, THEN JUST PAY
ME TO STAY IN BED!**

Carbon offsets

- Instead of cutting emissions themselves, companies, and sometimes international financial institutions, governments and individuals, finance “emissions-saving projects” outside the capped area.
- The UN-administered Clean Development Mechanism (CDM) is the largest such scheme, with over 1,500 registered projects by May 2009, and over 3,000 projects awaiting approval.
- Based on current prices, the credits generated by approved schemes will cost around \$35 billion by 2012.

Carbon offsets

- *Outsourcing not reducing.* Although offsets are often presented as emissions reductions, what these projects do at their hypothetical best is to stabilise emission levels while moving them from one location to another, normally from Northern to Southern countries. In practice, this “best case” scenario is rarely seen

Carbon offsets

- *Selling stories.* Offsetting rests on “additionality” claims about what “would otherwise have happened,” offering polluting companies and financial consultancies the opportunity to turn stories of an unknowable future into bankable carbon credits.
- The EU admits that at least 40% of these are bogus, while a survey by International Rivers found over 60% of projects to be “non-additional”

Carbon offsets

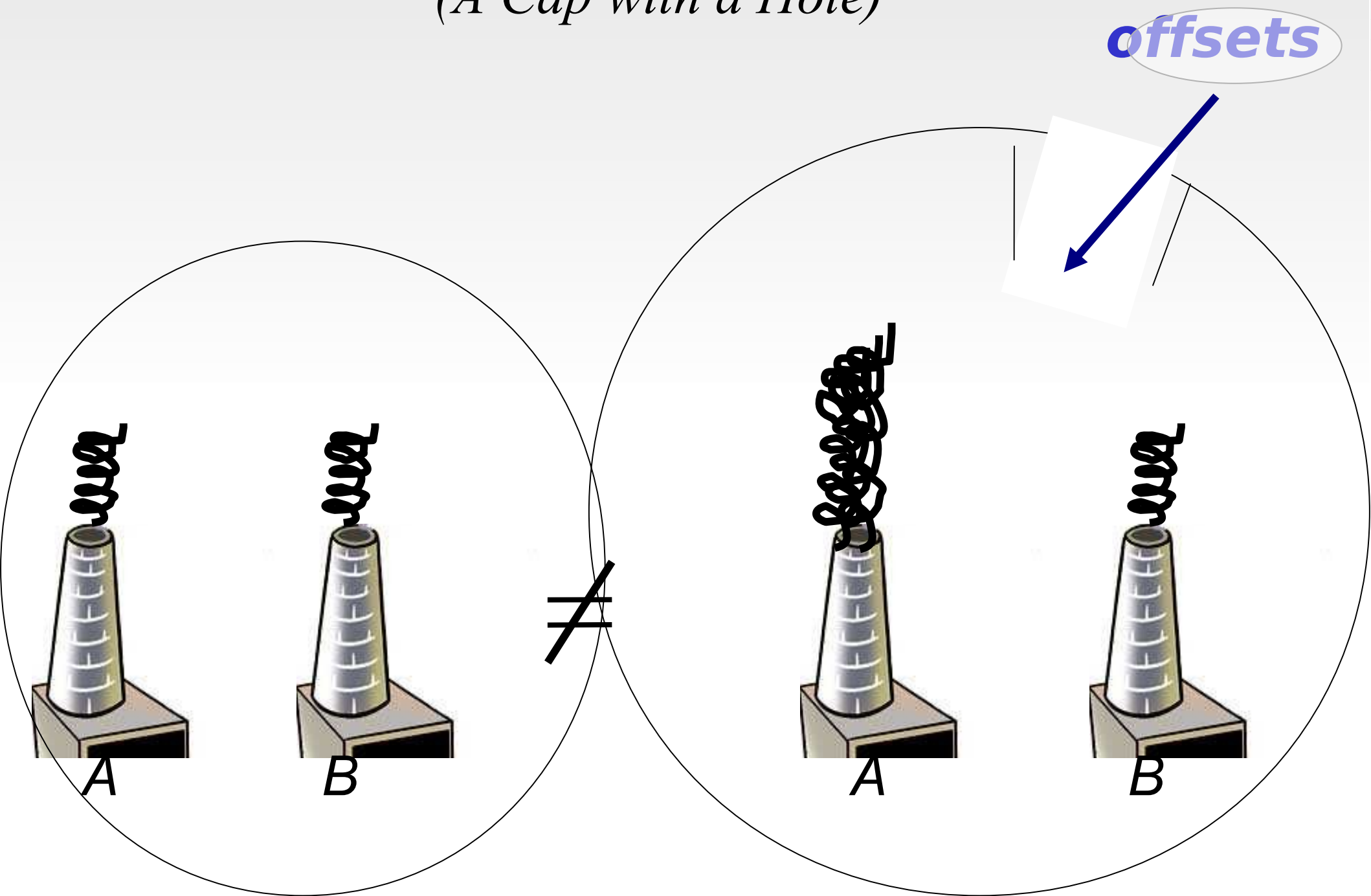
- *Offsets increase emissions.* Carbon offsets displace the necessity to reduce emissions in one location by a theoretical claim to reduce emissions in another – a net increase in emissions

Carbon offsets

- *The “development” disguise.* The use of development rhetoric masks the fundamental injustice of offsetting, which hands a new revenue stream to some of the most highly polluting industries in the South, while simultaneously offering companies and governments in the North a means to delay changing their own industrial practices and energy usage
- *Spreading injustice.* Carbon offset projects have resulted in land grabs and the repression of local communities.

Cap and Trade + Offsets

(A Cap with a Hole)



Cap and trade + Offsets

- While cap and trade in theory limits the availability of pollution permits, “offset” projects are a licence to print new ones.
- When the two systems are brought together, they tend to undermine each other – since one applies a cap and the other lifts it. An offset is essentially a permit to pollute beyond the cap.
- Most current and proposed “cap and trade” schemes allow offset credits to be traded within them – including the EU Emissions Trading Scheme and the US cap and trade scheme (proposed in the 2009 Waxman-Markey Act)

Carbon trading

- *Abstraction.* Carbon trading abstracts from the important question of *where* and *how* climate change is tackled. Traders choose for the *cheapest* credits available at the time, but what is cheap in the short-term is not the same as what is environmentally effective or socially just

Carbon trading

- *Making things the same.* Carbon trading constructs a whole series of dubious “equivalences” between very different economic and industrial practices, with the uncertainties of comparison overlooked to ensure that a single commodity can be constructed and exchanged. This doesn’t alter the fact that burning more coal and oil is in no way eliminated by building more hydro-electric dams, planting more trees or capturing the methane in coal mines.



Carbon trading

- *Financialisation.* As the carbon market “matures” it grows more complex, with new financial products developed to hedge risk and increase speculative profit. This risks creating a “carbon bubble.”
- The carbon market was created by many of the same people at the Chicago Climate Exchange who created the derivatives markets that led to the recent financial crash

EU emissions trading

- The EU Emissions Trading Scheme is the largest and longest running “cap and trade” system
- It is the largest carbon market in the world, worth around \$50 billion in 2007, and continues to grow rapidly
- The EU ETS is the main driver of demand for CDM projects

ETS: over-allocation

- The EU ETS has consistently awarded major polluters with more free “pollution permits” (called EUAs, European Union Allowances) than their actual level of carbon emissions
- This means it gave them *no incentive* to reduce emissions

ETS: over-allocation

- When traders realised the first phase of the scheme was over-allocated, the price collapsed – ending 2007 at €0.01
- In phase I (2005-2007) as a whole, major polluters had permits worth 3.4% more than their actual level of emissions

ETS: over-allocation

- The second phase of the EU ETS runs from 2008-2012
- For the first time in 2008, polluters were awarded fewer permits than their actual level of emissions
- However, the vast majority of factories and economic sectors are still *over-*allocated – it is only the power sector that needs to purchase credits

ETS: over-allocation

- The EU claims emissions reduction of 3%, or 50 million tons, in ETS sectors in 2008
- However, at least 80 million tons of CDM credits were bought as part of the ETS in 2009 – more than the level of the “cap”. So, again, the ETS does not require emissions reductions by companies in the EU

ETS: over-allocation

- The impact of the EU-wide recession means that the ETS as a whole will again be over-allocated in 2009
- Corporations get the same number of credits even if they temporarily close or scale down operations for short-term economic reasons

ETS: fake cuts

- *Trading looks for holes in caps.* The cap is only as tight as the least stringent part of the whole system. This is because credits are sold by those with a surplus, and the cheapest way to produce a surplus is to be given too many credits in the first place (“hot air” credits as a result of caps being set too high). The aim of trading is to find the cheapest solution for polluting industry, and it is consistently cheaper to buy “hot air” credits than to actually reduce emissions

ETS: fake cuts

- In ETS phase 1, Lithuania exported 33% of its credits to other countries in the EU. The underlying reason for its surplus was the closure of Ignalina, a nuclear power plant with a similar design to Chernobyl, which is happening in stages between 2004 to 2009
- Lithuania claims that the replacement power generation capacity will come from dirty coal plants instead.
- As a result it gained a large surplus of credits, which have been sold on and treated as “emissions reductions” elsewhere

ETS: windfall profits

- Companies receive most carbon credits for free. This is equivalent to a subsidy – and with allocations made on the basis of historical emissions, the largest subsidy goes to the dirtiest industry (especially coal-fired power plants)
- Windfall profits also arise from an accounting trick around “opportunity costs.” Power companies choose to do the cheapest thing to meet their ETS target – which is usually buying CDM credits – but passing on costs as if they were doing the most expensive – actually reducing emissions

ETS: windfall profits

- Power companies receiving free credits from the ETS have nevertheless “passed through” the cost of these credits to consumers
- The German Environment Minister estimated that Eon, RWE, Vattenfal and EnBW gained €6 to 8 billion as a result

ETS: windfall profits

- Research by market-analysts Point Carbon and WWF calculated that the likely “windfall” profits made by power companies in phase II could be between €23 and €71 billion
- They also found that these profits tend to be concentrated in “countries with emissions intensive (coal) plant setting the price the majority of the time”

ETS: windfall profits

- ArcelorMittal is the world's largest steel company
- It routinely receives massively more credits than it would have needed to even begin reducing emissions: a 36.9 per cent over-allocation in 2005, 26.9 per cent in 2006, 25 per cent in 2007 and 31.7 per cent in 2008
- The company is likely to have made over €2 billion in profits from the ETS between 2005 and 2008, with over €500 million of this achieved in 2008 alone – yet has needed to make no proactive changes to its emissions to do so

The US effect

- The most active buyers of CDM and JI credits to date are European companies, which either see them as a cheaper alternative to reducing their own emissions (under ETS) or buy them in markets in London for the purpose of speculation and re-sale
- This picture will change if a US carbon trading scheme starts, as seems likely. The EU ETS absorbed just over 80 million CDM/JI credits in 2008. The Waxman-Markey Act proposes to allow US companies to purchase from 1 to 1.5 billion international offsets every year

The US effect

- This would spur on a massive increase in damaging offset projects, putting enormous pressure to reduce the already-inadequate checks on their environmental integrity
- US expansion is also a key economic driver behind the demand to create forest carbon markets. It also creates an economic incentive for new sectoral carbon markets and other crediting mechanisms that look likely to have even fewer checks on their worth than current offsets

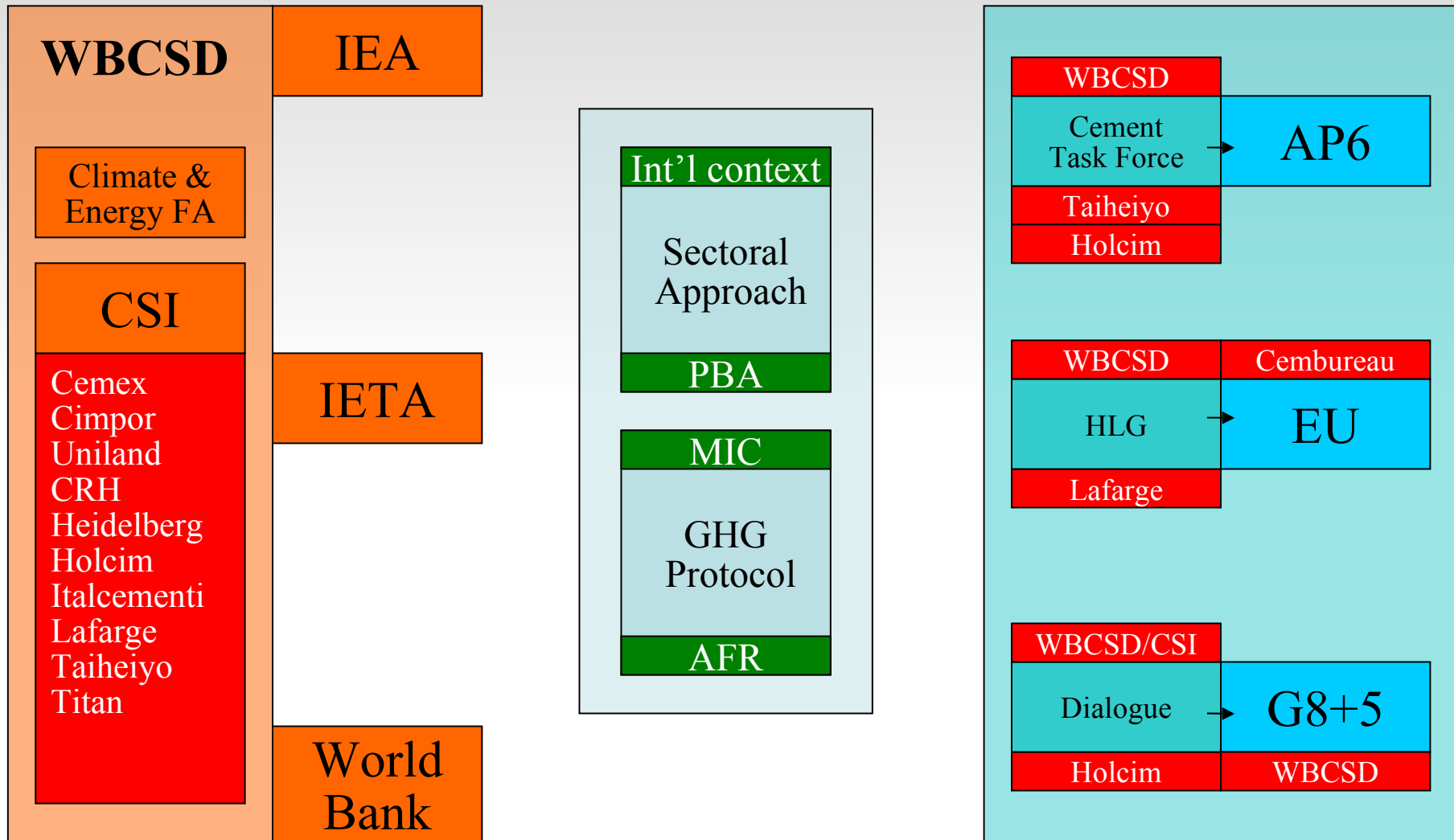
Climate negotiations

- *Trade talks.* Within the UN, states negotiate based on their own corporate and elite interests, emphasising competitiveness over environmental concerns
- Key negotiations are taking place outside the UN system. These include China-US, US-EU, EU-China bilaterals; Greenland climate summit June 2009; G8 L'Aquila July 2009; and possibly G20

Climate negotiations

- *Trade fair.* There are plenty of opportunities for business lobbying. These include the Copenhagen Business summit, 24 to 26 May
- At the UN climate conferences in both Bali and Poznan, the International Emissions Trading Association was the largest NGO

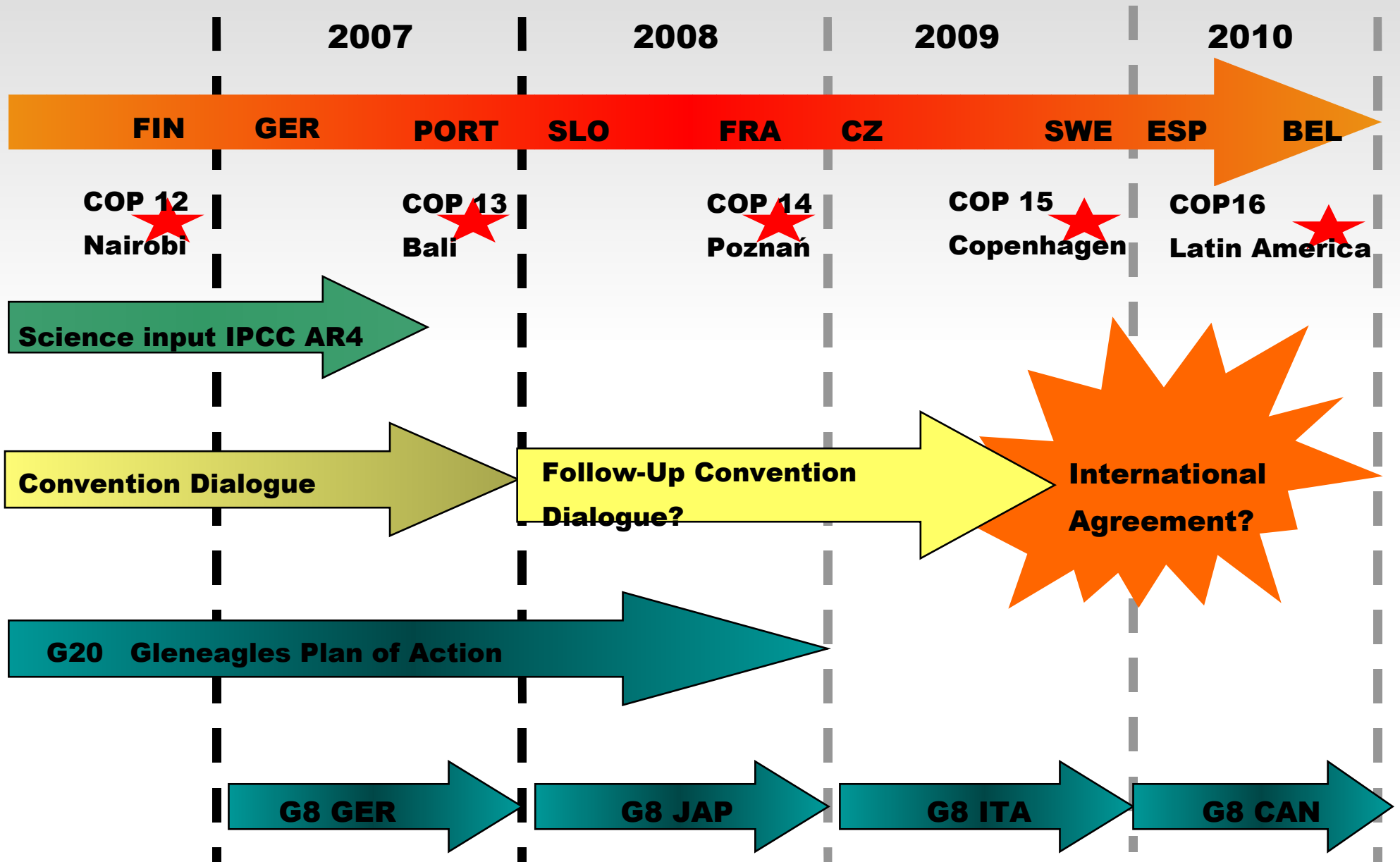
Lobbying



Bali Road Map

- Negotiations on a global & comprehensive climate change agreement – 5 building blocks:
 - shared vision for cooperative action
 - mitigation action (targets & actions)
 - adaptation action
 - enabling technology
 - enabling finance

Climate negotiations



Bali to Copenhagen

- Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol (**AWG-KP**)
- Ad Hoc Working Group on Long-term Cooperative Action under the Convention (**AWG-LCA**)
- Subsidiary Body for Scientific & Technological Advice (**SBSTA**)
- Subsidiary Body for Implementation (**SBI**)

Key issues for Copenhagen

- “Shared vision” for long-term cooperative action & mitigation – debate on emissions targets: how high, for whom, and when by
- Expanding carbon markets through “sectoral” approaches - including aviation and shipping, power, heavy industry (steel, cement, etc) and possibly agriculture
- Expanding and reforming CDM – including nuclear and “carbon capture”

Key issues for Copenhagen

- Reducing Emissions from Deforestation and Degradation (REDD)
- Technology transfer
- Financing
- Adaptation

Sectoral carbon markets

- *Expanding CDM.* Sectoral carbon crediting is presented as a transition away from “offsets,” but are in fact proposed within the framework of the CDM and have the potential to massively increase its scope
- *Removing already weak checks.* Sectoral crediting (and “programmable CDM”) would reduce checks on environmental sustainability and social justice, bypassing the current requirement to assess each project. This has been the dream of dodgy offset developers the world over

Sectoral carbon markets

- *“Reductions” that are not reductions.* The EU is proposing that these sectoral carbon credits could be generated by any practice that alters “business-as-usual trends” - but this is not the same as a reduction.
- In most sectors, the trend since 1990 (the usual baseline) has seen enormous emissions increases, with recent growth slowing a little. Depending on the baseline that is chosen, a baseline target could allow for continued increases over and above those that are currently being witnessed

Sectoral carbon markets

- *Talking down ambition.* Sectoral carbon markets (especially those defined as “no lose crediting”) promise to reward efficiency improvements or reductions beyond a business-as-usual scenario.
- This creates a perverse incentive for governments and industrial sectors covered by such schemes to talk down their “ambition” to maximise the number of credits they will receive, and is easy to achieve because data on past emissions is poor to non-existent.
- Over-allocations in cap and trade markets provide a clear precedent for this.

Sectoral carbon markets

- *More is less.* Another possibility under discussion involves setting an energy intensity target. If the intensity reduces while overall production increases, emissions continue to increase but generate carbon credits that masquerade as “reductions”.

Sectoral carbon markets

- *Who benefits?* Serious questions also remain unanswered about where this money would go (to states, corporations, communities?) and how this would be governed
- *Even looser caps.* Credits from sectoral carbon markets will provide new cheap and bogus sources of credits that can be traded in cap and trade schemes – with rules already in place in the EU, and provisions in the Waxman-Markey act, already allowing for this possibility

REDD

- Forest ecosystems estimated to hold around 20% of earth's CO₂
- REDD stands for Reducing Emissions from Deforestation and Degradation

REDD

- Pilot scheme implemented by World Bank Forest Carbon Partnership Facility (FCPF), which is seeking a forest carbon market
- REDD launched September 2008 with \$35million contribution from Norway. 9 countries eligible for UN-REDD funds
- Also bilateral agreements – eg. Australia-Indonesia

REDD

- REDD presumes that deforestation happens because standing forests make less money than forests that are cut down.
- In fact, the commodification of forests is what drives deforestation.
- This commodification includes the role of corporate and development bank investment in new infrastructure, mining and oil extraction projects; industrial logging; and land clearance to make way for monoculture plantations for the pulp and paper and palm oil industries.





Riau, Sumatra, Indonesia
Palm Oil for Export

REDD

- *Tragedy of enclosures.* REDD is likely to fuel property speculation and so exacerbate land conflicts
- *Who benefits?* REDD schemes often governed by states whose claim to land over-rides tenure rights of Indigenous Peoples and forest communities
- REDD will encourage further dispossession
- REDD schemes will be managed by many of the same logging and plantation corporations responsible for deforestation in the first place

REDD

- Danger that “an endless stream of deforestation credits will simply allow companies in the developed world to pay a little extra and pass costs on to consumers without otherwise changing their policies” (*Nature*, March 2008)
-

REDD

- *Too much uncertainty.* It is notoriously difficult to measure deforestation and degradation rates, even with new spy satellites. The variation in measurements far exceeds the level of “reductions” that would be traded
- *Active and Inactive Carbon Cycles.* Forest carbon is not equivalent to the carbon burnt in the use of fossil fuels. Forests work as “sinks” as part of an active carbon cycle, storing then releasing carbon as trees grow. Fossil fuels, once burnt, release carbon that cannot be put back (except over hundreds of thousands of years)



Alternatives

- *Carbon trading is worse than nothing.* As carbon trading helps to avoid change and even increases emissions, it is not a question of alternatives to carbon trading but rather of taking measures that actually tackle climate change
- *The importance of saying “no”.* A Copenhagen climate treaty with carbon trading at its centre is a bad deal for the climate, and is likely to be worse than no deal at all

Alternatives

- *New policies.* There are numerous positive proposals for all sectors – from efficiency standards for electrical appliances and buildings to feed-in tariffs for renewables
- *New revenues:* tax and restrict currency and fuel speculation. This is a better means than a regressive carbon tax to generate revenue for clean investment
- *Fuel poverty:* This should be accompanied by proactive policy measures to tackle fuel poverty, such as a ban on pre-pay metering



Sub station near Tata Motors Wind Generators

Alternatives

- Renewable energy - but not uncritically
- Renewables can be damaging when they greenwash industrial expansion, dispossess local populations, or simply *supplement* expansions in fossil fuel use

Alternatives

- *New energy research.* Private research on energy alternatives and use favours “least cost” false solutions (eg. agrofuels, hydroelectric dams, nuclear power) rather than environmentally effective alternatives, so is less effective than public research
- *Reclaiming the public.* Public research agendas are currently driven by private companies, undermining their effectiveness too – this system needs reform to set environmental and social priorities over corporate ones

Alternatives

- *Re-estimating energy demand* . Current models presume limitless growth and overstate future energy demand, without disaggregating fundamental needs from the desire of many industries to capitalise upon a continued supply of cheap power.
- A comparative historical study led by Professor Paul Craig of the University of California found that most forecasts had overestimated US energy demand by 100 per cent.

Alternatives

- In other words, energy demand estimates assume a need to build more power stations than are either needed or environmentally sustainable, and these over-projections helped to keep prices low – which is, in turn a key structural driver of over-consumption
- The Transition Towns movement is going some way towards re-estimating demand with its “Energy Descent Action Plans”, but lacks a structural analysis of heavy industry use (or capitalist accumulation) and is often divorced from organising for more equitable distribution of energy

Alternatives

- Leaving fossil fuels in the ground
- Radically reducing wasteful consumption (in the North and by Southern elites)
- Repayment of “climate debt”
- Resource conservation that promotes peoples' sovereignty over energy, forests, land and water
- Sustainable farming and food sovereignty

Alternatives

- *Economic growth = emissions growth.* There is no evidence that “advanced” economies are decarbonising – making it extremely unlikely that GDP growth can be delinked from a growth in emissions, and even more unlikely that this could happen quickly enough to be of any use in urgently tackling climate change
- The good news is that more effective measures of human well-being than GDP growth do not correlate closely with increased emissions – ie. we can live happy and fulfilled lives if we set aside the capitalist growth fetish

Thanks You

- For more details see:
- www.carbontradewatch.org
- www.tni.org