

## Always Look on the Bright Side of Life: The Evolution of Adaptation Law



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## My Last Presentation



## Spot the Difference: Brexit Negotiations



## Spot the Difference: Middle East Negotiations



## Spot the Difference: Paris



## Copenhagen Accord v Paris Agreement

- As a matter of law INDCs are non-binding
- Financial commitments are ostensibly the same as Copenhagen
- Article 15 Paris Agreement explicitly excludes adversarial or punitive action (e.g., INDCs)
- Hence, Paris was an international gathering rather than an international law negotiation

## A Word from our Mother Country

**I AM AN OPTIMIST. IT  
DOES NOT SEEM TOO  
MUCH USE BEING  
ANYTHING ELSE.**



Winston Churchill  
Former Prime Minister of the UK  
(1874-1965)

QuoteHD.com

## Paris Agreement - Adaptation

Governments agreed to:

- strengthen societies' ability to deal with the impacts of climate change;
- provide continued and enhanced international support for adaptation to developing countries.
- Finance cost estimate/year: Dev'd countries – €43 billion/yr (Fankhauser, 2013) (UK €1.25-1.75 billion/yr); petrol/road tax revenue = €26.7 billion/yr

## Domestic Adaptation – Main Paris Provisions (B = binding; NB – non-binding)

- B - Art(8)(a) - promote adaptation ambition in INDCs – *polis generalis*
- B - Art 7(1-5) - adaptation is a: global goal; global challenge; costly; a multi-stakeholder consultative activity; *polis generalis*
- NB - Art 7(9) – National adaptation plans, actions, processes, assess, monitor, evaluate, build resilience (**Why NB? as appropriate**)
- NB – Art 7(10-12) – Submit, update and register adaptation communications [**further to Art 7(9)**]
- B – Arts 9/10 – Finance and Technical support to developing countries (**very weak commitments**)

## Paris Support to Developing Countries

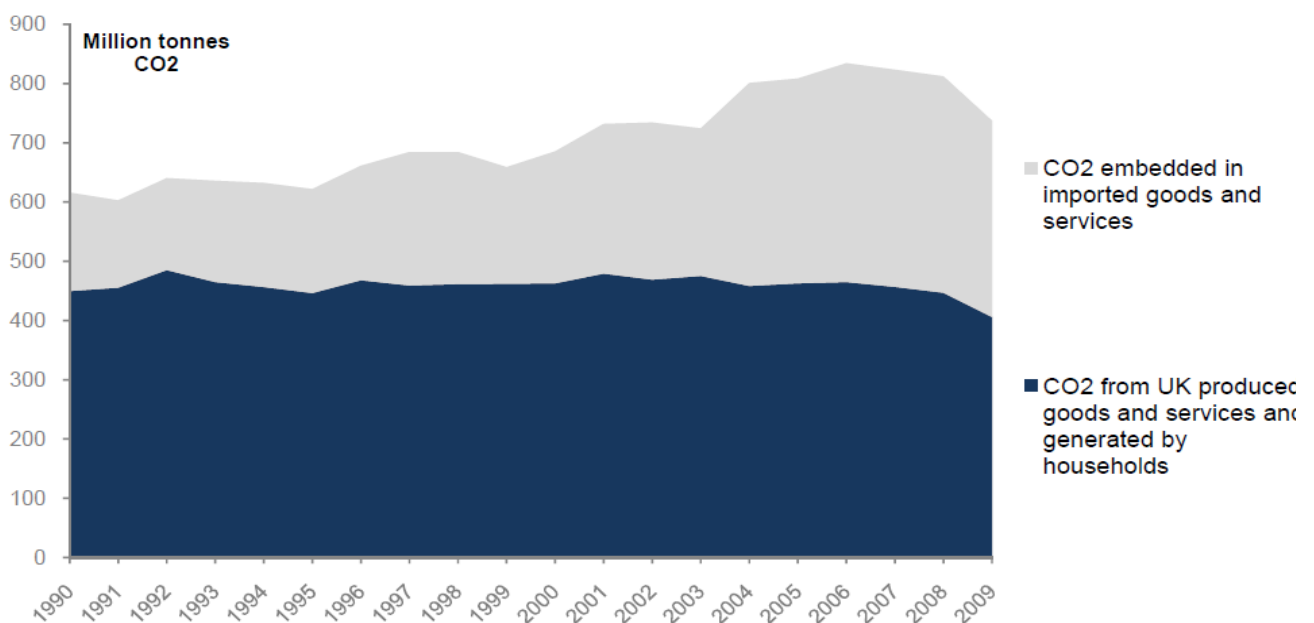
- Developed countries are meant to support climate action to reduce emissions and build resilience to climate change impacts in developing countries.
- Other countries are encouraged to provide or continue to provide such support voluntarily.
- Developed countries intend to continue their existing collective goal to mobilise USD 100 billion per year until 2025 when a new collective goal will be set (mitigation/adaptation ratio?)

## UK Case Study

- Absolute emissions 771 (1990) 625 (2008) Mt CO<sub>2</sub>-eq. (DECC 15% reduction re UNFCCC requirements) **HOWEVER!**
- Consumption-based emissions have risen 42% between 1990 and 2015 (2013 – >32% Kyoto)
- 92% biofuel imports – 2020 renewables target
- 2014 trade figures have pushed the trade deficit even higher (50% more exports than imports). i.e., China absorbs our footprint!

## Consumption-Based Emissions

Figure 1 CO<sub>2</sub> emissions associated with UK consumption 1990 to 2009





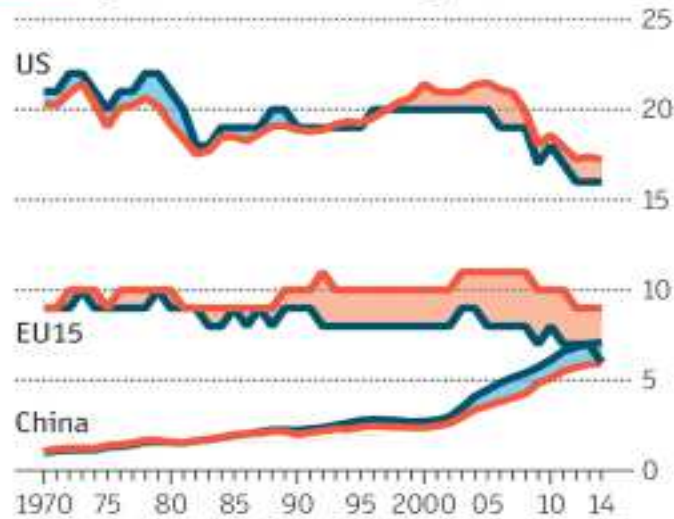
# Trade-based Emissions

## Learning curves

CO<sub>2</sub> emissions per person, tonnes

— Domestic production

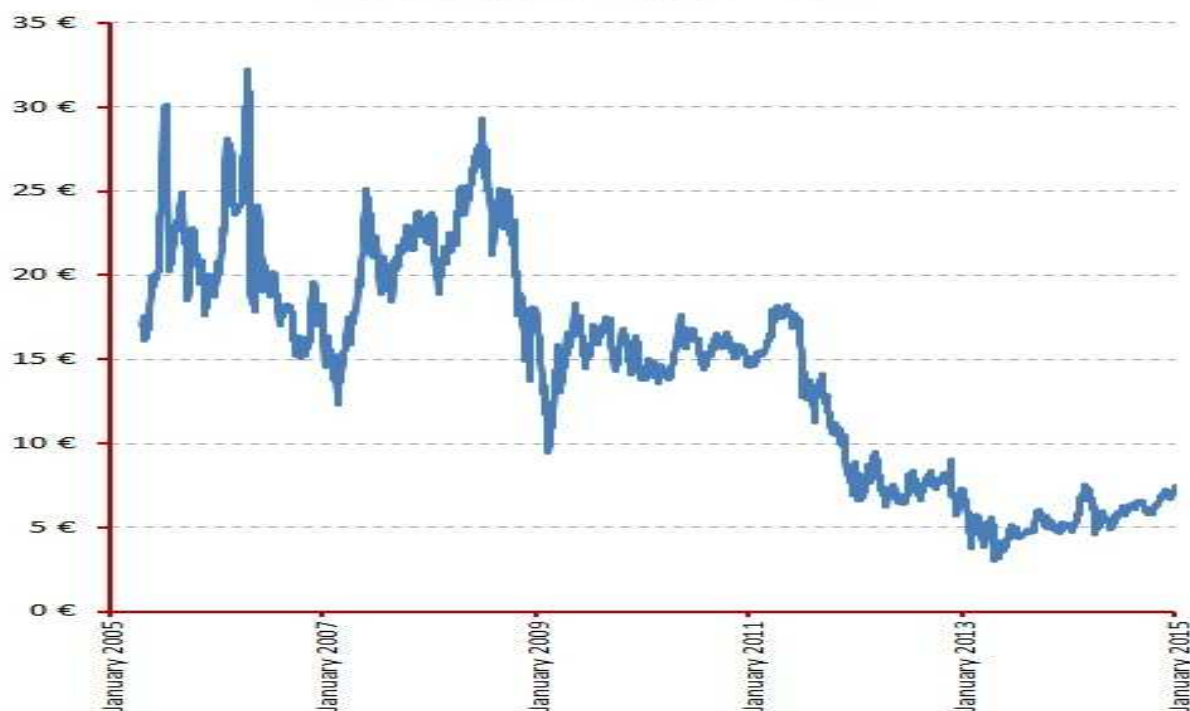
— Adjusted for effect of traded goods



Source: Michael Grubb

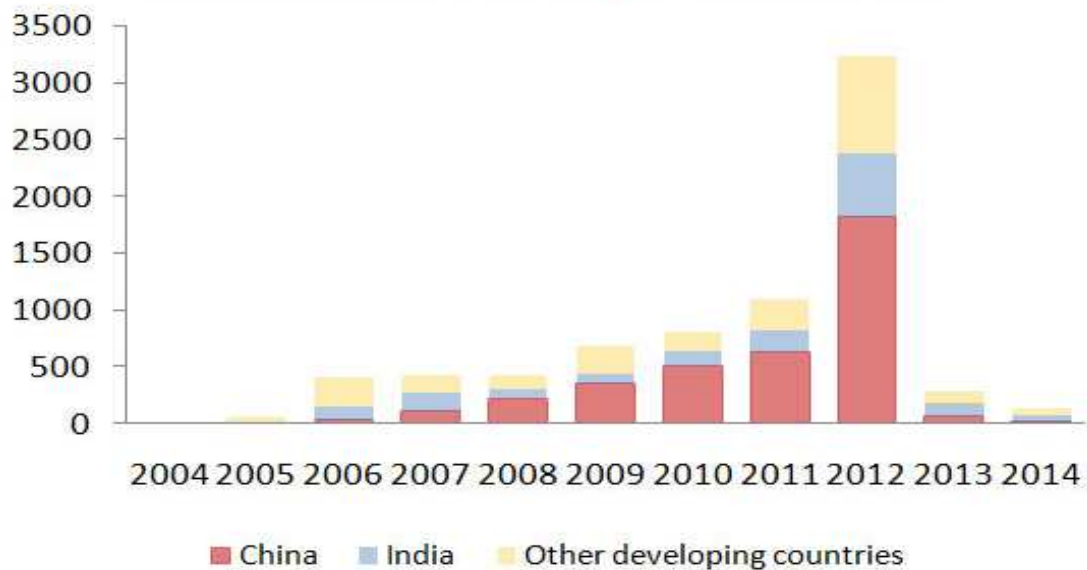
# Economic Incentives

## 10 Years of the EU ETS



# Kyoto Economic Instruments (UNFCCC, 2015)

Figure 1: Number of Projects Registered, by Year



## Summary Legal Solutions

- INDCs need to be legally binding (ICJ-enforced)
- INDCs need to internalise consumption-based GHGs including from trade
- As they are to include trade-weighted GHGs, non-compliance should also be subject to WTO remedies (up to and including WTO suspension)
- A Carbon tax with a floor price feature
- Regulatory Risk Spreading
- The **GREENPEACE** Carbon CREDIT Card



# UK Adaptation Factual Summary

- Within 20-30 years, UK will match or exceed Germany in population size (app. 80 million) with 1/3 of its size
- Temperatures will rise 3 to 7° by 2070; ground temp 4- 10°
- Water use will rise 1%/year throughout
- Rainfall will drop 5-20% by 2050;
- Next Thames Gateway flood event = €6-8 billion (2015)
- 1:100 year flood events have occurred 2X since 2013
- Invasive pest and disease threats have risen every year since 2000
- **Government Response?** The first NAP did not contain any significant new proposals nor lead to any resources being reprioritised. A lack of specifics makes assessing progress against the objectives, and the impact of the actions being taken, difficult. Many of the remaining actions do not have a fixed timescale for delivery.

## UK, Climate Act, 2008, c. 27 (as amended)

- Sec. 16 - There shall be an **Adaptation Sub-Committee** of the Committee on Climate Change, in order to provide advice to and scrutiny of the Government's adaptation work.
- Sec. 56 - Adaptation - the **Government must report** at least **every five years** on the risks to the UK of climate change, and publish a **program** setting out how these impacts will be addressed.
- Sec. 58 - **Programme on Adaptation to Climate Change** including climate change objectives, proposals and policies to be provided to Parliament (rather crucially such objectives are not drafted into the Act nor otherwise referred to in law). Hence, such a programme is unenforceable in a court of law.

# UK, Climate Act, 2008, c. 27 (as amended)

- Sec. 59 – There is a legal requirement for the Climate Change Committee to **evaluate the National Adaptation Programme every two years** (nothing further) Sec. 62 - The Act also introduces powers for the Government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks.
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## What Should a NAP Implement? A Twelve-Point Plan

Key Implementation Points	UK Response / Evidence (Red/Amber/Green)
1. Establish better monitoring systems: a system of linked, new and existing indicators, including lead indicators of vulnerability, is an important tool for informing both public and private sector decision-making.	DEFRA Budget for Adaptation Team reduced 40%; Zero monitoring results for NAP vulnerability/adaptation;
2. Provide user relevant information, guidance, incentives and tools for private adaptation: support private adaptation innovation (drivers and barriers analysis)	No cost distribution solutions; No guidance – Thus far only NAP + Adaptations Sub Cttee Reports, 2014, 2015
3. Build capacity to deliver effective and efficient adaptation across Government: integrate decision-making and build local capacity	Very little local government NAP planning; Skill and planning gaps in central government; No cost distribution solutions;
4. Ensure critical services and systems are able to cope with current climate variability and extremes of weather: (i.e., droughts / floods –	3.8 million homes at risk of flooding (30% of new build to be constructed in flood plains); only 1 para on flooding in NAP (no risk

# What Should a NAP Implement? A Twelve-Point Plan

Key Implementation Points	UK Response (Red/Amber/Green)
5. Refine current agricultural and related policy frameworks: ensure they long-term resilience of land and food security	Soil carbon levels falling nationally in arable soils; lowland peat soils being lost or degraded (high carbon release); most productive arable land at risk; decline in species diversity
6. Encourage research and development into new 'adaptive' technologies, markets and measures: pilot funding, innovation partnerships	No new funding for adaptation; Threats pathogens, air pollution and UV radiation rising; No data on weather responses and NHS – declining resources for emergency services
7. Encourage the uptake of water savings measures with clear benefits today: invest in fixing leaks, create user water reduction incentives	State is moving out of flood funding (private solutions); abstraction charging being discussed; SuDS measures weakened; slow progress in flood risk management strategies
8. Enable water companies to make appropriate investments in supply-side measures: reservoirs, water transfer systems, water reuse	R&D budgets have been in decline since 2008 as has infrastructure investment; leakage rates of 20-30% are common; Profits £800 million (2015); Thames Barrier (TB2) £2 billion project being mooted.

# What Should a NAP Implement? A Twelve-Point Plan

Key Implementation Points	UK Response (Red/Amber/Green)
9. Refine current water abstraction licensing: rationalises and reduces water use and related ecosystem fragility	Not done; most homes have no meters let alone businesses; no water use reduction incentives
10. Ensure new and existing public infrastructure and buildings are resilient against extreme weather and climate change: (e.g., schools, hospitals and flood defences).	No incentives for retrofits; No resilience incentives in BREAM;
11. Use policy tools to encourage the resilience and robustness of private infrastructure, buildings and land management: (e.g. property developers, insurance, health care providers, water companies, energy operators, transport operators and telecommunications).	Zero heat stress strategy – risks increasing with aging population; hard surface (flash flood) construction is rising/not managed; transport, water, energy infrastructure new build has zero resilience legal requirements;
12. Ensure that major new developments, such as infrastructure, buildings and land management support are resilient.	No data on infrastructure resilience and no risk assessments to date; no resilience requirements in EIA/SEA;

## NAP Recommendations

1. Flood Re – Flood risk alleviation and development planning for new homes; flood risk management plans for all local authorities
2. New regulatory standard to address overheating in homes, hospitals, care homes
3. Regulatory prohibitions on urban green space reduction
4. Soil carbon / Soil Conservation Strategy
5. Mandate Country Stewardship Scheme to protect remaining ecosystems and farmland

## NAP Recommendations

6. Regulatory prohibition on destruction of peat lands and peatland restoration targets
7. Amend Water Industries Act, 1991, to apply conditions to water use for new development
8. Water companies to be statutory consultees for sewer network planning; SuDS and surface paving
10. OFWAT to report on leakage reduction; abstraction licences and meter uptake with targets
11. All infrastructure development to be subject to EIA/SEA to build in resilience requirements

## Generation 4c: Risk-based Regulation: Assess, Share, Manage – Flooding (UK)

Parties	Implementation	Who failed?	Result
Government	Flood Management	<b>Government</b> Underspent	Reputational damage and 175,000 homes now worthless
Insurers	Potentially Insurer	5 year deal to insure (ended 2013)	Lost market does not insure these homes – reputation issue too
Re Insurers	Potentially Re Insurer	5 year deal to reinsure (ended 2013)	Out of the games re these homes (like insurers)
Consumer	None	No role	£10 per head tax hike
Banks	None	No role	Lost investment in these homes as no longer sellable

## G4c: Risk-based Regulation: Assess, Share, Manage – Climate Change

Parties	Implementation	Who failed?	Result
Government	Most of responsibility	Government	Climate crisis – national reputational loss
Insurers	Some new business but no incentives or protection	None as yet	Yes – lose potential markets that might otherwise be available; lose on potentially viable solutions when liabilities are placed squarely on the technology providers – e.g. CCS Technology, renewables,
Banks	Some new business but no incentives or protection	None as yet	Yes – lose on investments when firms have large carbon liabilities (Standard USA)
Consumers	None unless you volunteer to reduce your carbon footprint + taxes (not hypothecated)	None as yet	More tax hikes to come

## Climate Justice 1 – Climate/Energy: *Urgenda* Citizen Suit (2016)

- Netherlands pledges modest GHG emissions cuts so
- 886 citizen plaintiffs bring suit vs. Government **Grounds?**
- A human rights and tort law action revolving around negligence – Government “knowingly contributing” beyond 2 Degrees
- EU Precautionary principle argued
- 1972 Stockholm “good neighbour” principle argued
- Remedy sought directly against Government
- **Result** – Judicial order to reduce GHG emissions by 25% in 5 years.
- *Klimaat Zak* – Belgium case to come upon same principles
- Both based upon UN Intergovern’l Panel “sound science”

## Climate Justice 1 - Climate/Energy: *Loppersum Village Decision*

- *Loppersum Village Decision*– Groningen, Netherlands (Decision April 2015)
- **Result:** Court ordered Dutch Government to halt gas extraction due to the threat of small earthquakes to local residents
- A case brought by 20 residents with no vested interest behind them
- Restart only if a national energy security threat



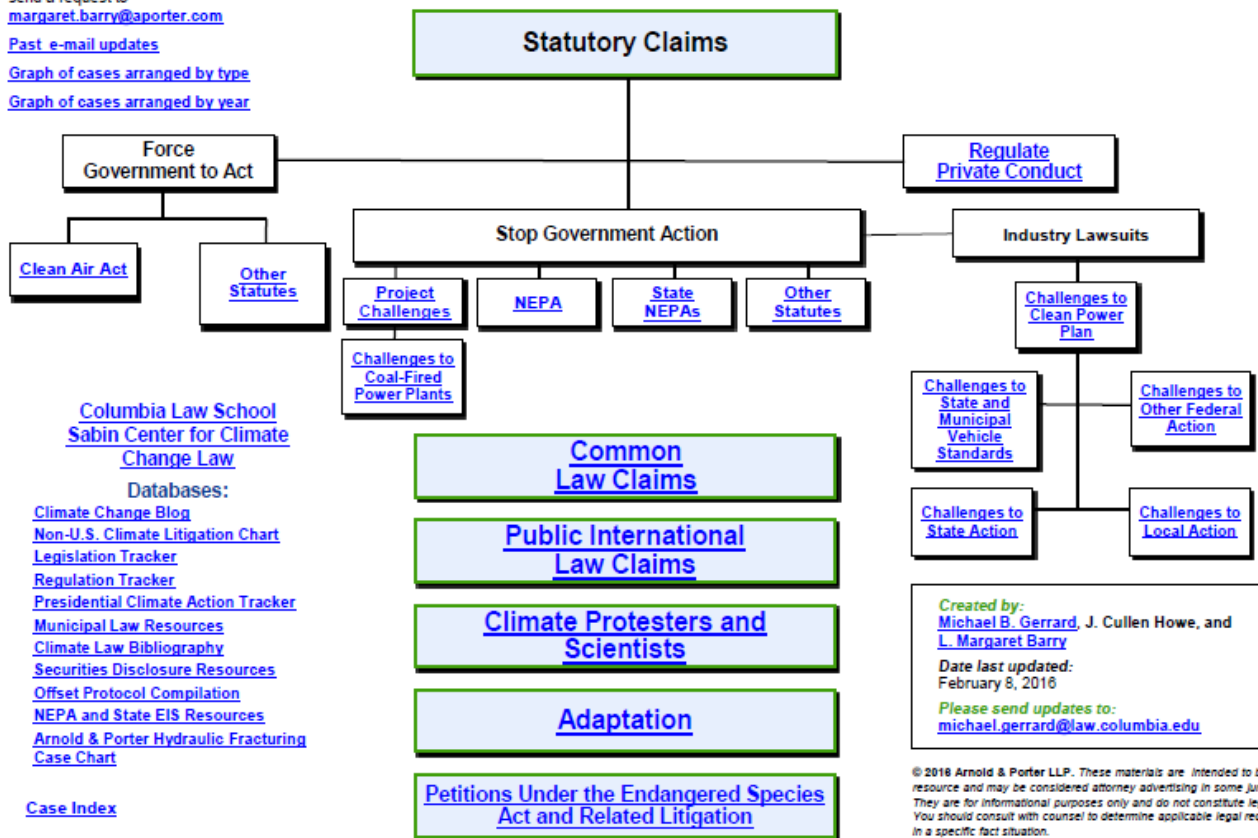
## Climate Justice 1 – Climate / Energy ICJ Legal Opinion – Climate Change Damage (2013)

- Following the WHO ICJ opinion about the legality of the use of nuclear weapons (2008)
- “What are the obligations under international law of a State for ensuring that activities under its jurisdiction or control that emit greenhouse gases do not cause, or substantially contribute to, serious damage to another State or States?” (sets up damage cases)
- Would require UN Gen Assembly assent – USA discouraged this move
- Strategic utility – *Exxon v Kivalina* 2009 Arctic cases + 13 Vulnerable States – sea level rise (Declaration) \$\$\$

## Some ‘New’ Human Rights?

- Right to (‘healthy’, GHG –Free )Environment
  - *Minors Oposa 1993*
  - *Attakoya Thangal v. Union of India W.P 1990*
- Right To Maintain Cultural Traditions
  - ‘*Inuit Petition*’ + *Kivalina case*
- The Right to Environmental Refugee Status based upon imminent ecological vulnerability
  - Amendment to the Geneva Convention
- Codifying economic rights in the UNFCCC

## CLIMATE CHANGE LITIGATION IN THE U.S.



### State as Defendant:

#### ECJ *French Hake* Case 304/02 as basis for Kyoto failures

- 20 years of non-compliance with Fisheries Law
- Juvenile hake takings and reproduction losses
- Too little too late policy not enforced so EU Treaty Art 260 (formerly Art 228) penalty assessment
- Lump sum for period between Art 256 and 260 judgments then daily fine post Art 260 judgment
- **10/20** (serious) x **3/3** (duration) x **21.1** (GNP x Council vote) x **500** Euro (flat rate) = **€31,650/day**
- Result: Further penalty of ½ lump sum for each six months from the Art 260 judgment day **€57.8 million**
- Remember **Francovich** too – State liability to 3<sup>rd</sup> parties

# The Carbon CREDIT Card

- How does it work? Voluntary for 6 months
- Remember we produce £3, 000/tonne of CO<sub>2</sub>
- Every person gets a card. Notional footprint of 12 tonnes per person
- Start with energy emissions – power and transport
- E.g., transport emissions ride a bike get 2 tonne credit – drive a Range Rover lose a 2 tonne credit
- Then once this is bedded down focus upon products