

A package for future international climate change policy: enhancing developing country participation

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Content

- Merits & shortcomings of current regime: DC perspectives
- Contents of Likely Deal?
 - Objective
 - Mitigation
 - Adaptation
 - Technology
 - Financing



Package for future climate policy

DC Perspectives

- Rejection of Kyoto by Bush in 2001 hampered implementation worldwide & slowed international negotiations
 - Rapid rise in DC emissions (from low per capita levels) does not change the fact that CC is caused mainly by historic emissions.
 - Many OECD countries' emissions have risen despite Kyoto targets, despite IPCC AR4 but...
 - Progress has been made through establishment of global carbon markets, reporting, review & compliance
 - More attention now on DC issues: adaptation, deforestation, SD-PAMs
- Recession may dampen green enthusiasm & lead to protectionism...response measures issue
- US election adds momentum to Bali Road Map negotiations comprising two main tracks:
 - UNFCCC track – Long Term Cooperative Action –LCA
 - All parties, including USA and developing countries actions
 - Kyoto Track- next round of targets, timetables and improvements to carbon markets
 - USA not a party but will cover Kyoto parties, no targets for developing countries
- Negotiations will result in new Protocol or amendments to Kyoto plus UNFCCC actions. Timetable: Copenhagen, COP-15, CMP 5 (December 2009) with negotiations in March/April, June, August/September and December

US re-engagement: crucial to all Parties

- Obama's inaugural speech highlights shift in position/framing...
 - “roll back the spectre of a warming planet”
 - “new era of responsibility”
 - “restore science to its rightful place”
 - “we can no longer afford indifference to the suffering that occurs outside our borders”
 - “nor can we consume the world's resources without regard to the effect”
 - “the way we use energy strengthens our adversaries and endangers the planet”

US re-engagement

- Obama's pledges in election:
 - \$150 bn investment in green energy over 10 years
 - 1m hybrid cars, fuel consumption of 150mpg by 2015
 - USA electricity from renewables increased by 10% by 2012, 25% by 2025
 - Internationally:
 - GHG emissions 80% by 2050
 - Return US emissions to 1990 levels by 2020
 - By contrast EU target is 20% reduction by 1990 level by 2020 (30% if others ICs agreed more stringent levels)
 - Details of how/when US will reengage, which track not yet clear

Likely Deal Contents?

- Remaining presentation part of proposals based on project financed by the UK Department of Energy and Climate Change (formerly UK Department for Environment, Food and Rural Affairs)
- The opinions expressed are those of the authors alone and do not reflect the views of their respective institutions or the UK Department of Energy and Climate Change.

Objective

Shared
vision

Mitigation

Adaptation

Technology

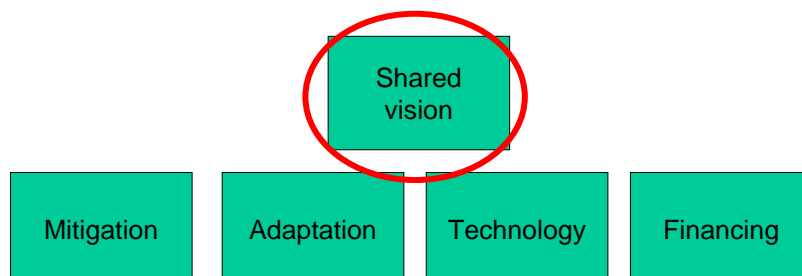
Financing

- Package “deal” for a Copenhagen agreement
- Stimulate frank discussions on a future climate change regime

Objective

- Balanced merge of key features of proposals
- Have the big picture
- Compatible with stringent climate goals while ensuring sustainable development
- Common but differentiated responsibility

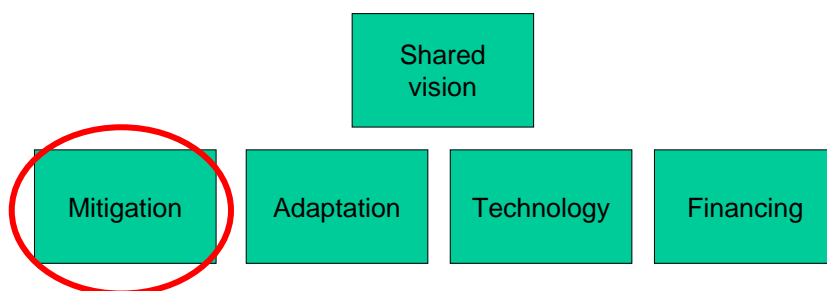
Content



Shared vision

- Global emissions should peak in the next 10–15 years
- Global emissions are reduced below half of 1990 level by 2050
- At the same time, economic development should proceed in a sustainable manner.
 - halve, between 1990 and 2015, the proportion of people, whose income is less than \$1 a day
 - halve, between 1990 and 2015, the proportion of people who suffer from hunger
- Adaptation efforts are adequate to allow natural systems (and the human systems that depend on them) to adapt.

Content



Mitigation – developed countries

- Absolute emission reduction targets are differentiated by country.
- Agreed for two five-year periods and every five years

Annex I	Present pledges		
	until 2020	2020-2040	after 2040
EU-27	20% below 1990	1% pa	2% pa
EIT	25% below 1990	1% pa	2% pa
USA	10% below 1990 in 2030	1% pa	2% pa
Others	emissions not increase above 2005 level	1% pa	2% pa

Mitigation – developed countries

Annex I -25% Slow			
Annex I	until 2020	2020-2040	after 2040
EU-27	30% below 1990	3% pa	5% pa
EIT	45% below 1990	3% pa	5% pa
USA	10% below 1990	3% pa	5% pa
Others	10% below 1990	3% pa	5% pa

Annex I -40% Fast			
Annex I	until 2020	2020-2040	after 2040
EU-27	45% below 1990	3.6% pa	3.6% pa
EIT	60% below 1990	3.6% pa	3.6% pa
USA	25% below 1990	3.6% pa	3.6% pa
Others	25% below 1990	3.6% pa	3.6% pa

Mitigation – developing countries

- Groups based on common but differentiated responsibilities and respective capabilities
 - Newly industrialized countries – binding absolute targets for agreed sectors
 - Rapidly industrializing countries – binding dynamic sectoral targets for agreed sectors and sustainable development policies and measures or extended CDM (programmatic CDM and improvement of existing CDM)
 - Other middle income developing countries - No-lose sectoral targets (no penalties apply if not achieved) and SD-PAMs or extended CDM for other sources
 - Least developed countries - SD-PAMs and extended CDM
- Developing countries negotiate mitigation actions appropriate for its category (or withdraw from the international agreement).
- Provide national mitigation plans describing their reference development, new actions according to their category, resulting emission levels and financing needs

Mitigation – REDD

- Countries with large forest implement actions to reduce deforestation and forest degradation
- Reductions below “business as usual” baseline financially supported, except for Newly Industrialised Countries and Rapidly Industrialising Countries that agree on a target in this sector with an own contribution.
- “One way linked”: Each developed country commits to buy REDD credits to a collective maximum of 300 MtCO₂ per year (roughly 10% of total current deforestation emissions) in 2020, increasing to 500 MtCO₂ per year in 2050. If REDD credits are not available, countries can fulfil their commitment with other units from the carbon market.
- Once a country receives REDD credits for reduced deforestation, it is expected to ensure that the forest is preserved and not deforested at a later date. To ensure permanence: (1) A buffer of credits must be maintained and (2) A financial reserve must be kept by the country to replace the issued credits in case of loss of the forest
- Additional non-market incentives for REDD
- Capacity building in monitoring deforestation and implementing conservation strategies

Mitigation – sectoral actions

- Specific actions for several important sectors by all countries (binding for developed and newly industrialised countries and indicative for all other countries):
 - Emissions-intensive industries: Emissions-intensity levels
 - Electricity production: stop building new coal-fired power stations (without CCS) by 2020, phase out any existing stations (without CCS) by 2050, zero net emissions in the in the power sector by 2065
 - Passenger transport: global or regional energy efficiency standards
 - Electrical appliances: standards for energy efficiency
 - Heating and cooling: Best practice guidelines for existing buildings. All new buildings built after 2020 are very low / zero energy buildings

Mitigation – response measures

- Halve subsidies on fossil fuel production and consumption in all countries
- Restructure taxes to reflect carbon content of fuels in all countries
- Developing countries may request financial assistance for to diversify their economies, higher assistance for lower GDP/cap
- Transfer of technologies that can assist with capture emissions from fossil fuel production and consumption

Mitigation

	Capability	Responsibility	Potential
	GDP/cap	Cumulative GHG/cap since 1990	GHG/cap
Current world average	8700	5	6.5
Newly industrialised countries	15000	3	6
Rapidly industrialising countries	10000	2.5	5
Other developing countries	5000	1	2

Mitigation

	2015	2020	2025	2030	2035	2040	2045	2050
Canada	6	6	6	6	6	6	6	6
USA	6	6	6	6	6	6	6	6
OECD Europe	6	6	6	6	6	6	6	6
Japan	6	6	6	6	6	6	6	6
FSU	5	5	5	5	5	5	5	5
E Europe	5	5	5	5	5	5	5	5
Oceania	5	6	6	6	6	6	6	6
C America	3	4	4	4	4	4	4	4
S America	4	5	5	5	5	5	5	5
N Africa	3	3	3	5	5	5	5	5
SEW Africa	2	3	3	3	4	4	4	4
Middle East	4	4	4	4	4	4	4	4
S Asia	2	2	2	2	3	4	5	5
E Asia	4	5	5	5	5	5	5	5
SE Asia	3	3	3	4	4	4	4	4

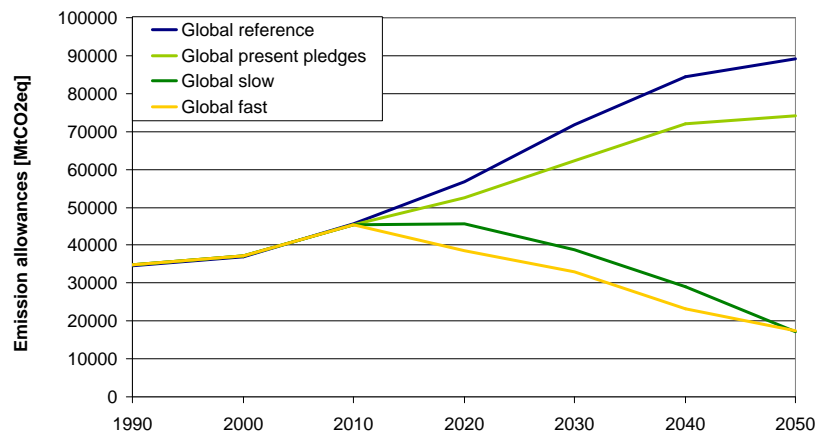
1	Least developed country (LDC)
2	Other developing country (ODC)
3	Rapidly industrialising developing country (RIDC)
4	Newly industrialised country (NIC)
5	DC moved to Annex I
6	Annex I

Source: Evoc Tool



Package for future climate policy

Mitigation

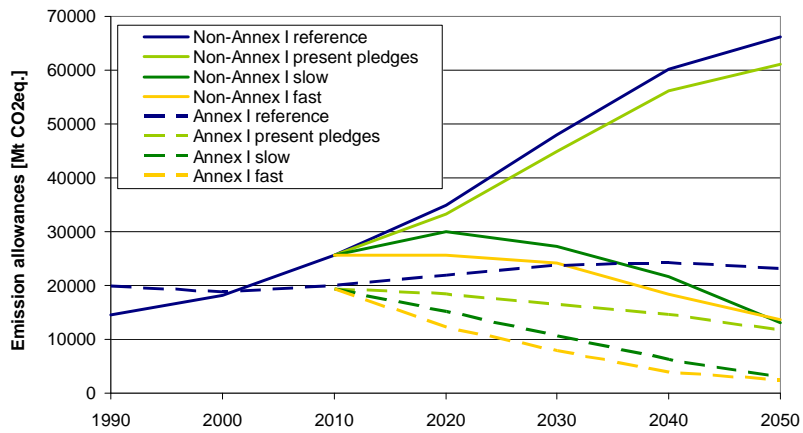


Source: Evoc Tool



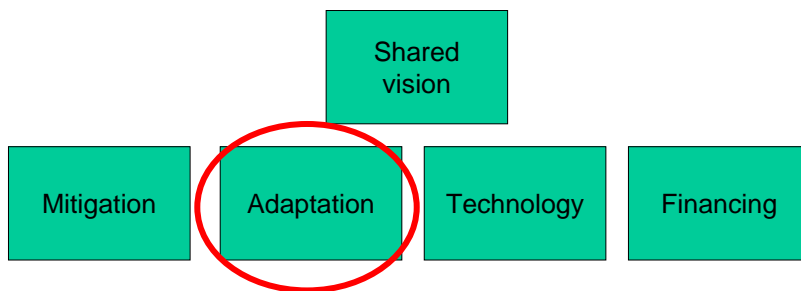
Package for future climate policy

Mitigation



Source: Evoc Tool

Content



Adaptation I

- Enhance implementation and funding of adaptation across a broad spectrum of developmental activities and better utilization of approaches and instruments for risk management and disaster reduction.

International cooperation to support urgent implementation of adaptation actions

- “Prompt start” for urgent adaptation measures in vulnerable developing countries
- Methodologies to identify national adaptation priorities
- Increasing the predictability and scale of adaptation resources
- Shift from project funding to integration in national planning



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Adaptation II

Risk management and reduction

- Countries identify specific risk management needs and potential mechanisms by mid-2010.
- Countries agree on categories of risk management needs by the end of 2010.
- Countries agree on one or more mechanisms to address each category of risk management needs by the end of 2012.

Disaster reduction

- Enhanced coordination of adaptation with disaster reduction strategies under the Global Platform for Disaster Risk Reduction and the Hyogo Framework for Action

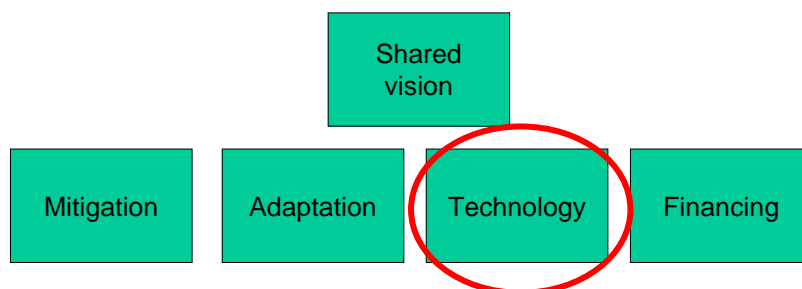
Economic diversification

- Developing countries request financial assistance from the Adaptation Fund for adjustment or economic diversification to reduce vulnerabilities



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Content



Technology I

Retrofitting 'old' technology and deployment of existing technology

- A Technology Fund with a mandate to enhance technology transfer and accelerate deployment of technology in developing countries
- Expert panels propose strategies to accelerate deployment of specific technologies globally
- National technology transfer plans, based on TNAs, that provide financial assistance to developing countries for transfer specific technologies with commitments to implement the technologies and dismantle the trade and investment barriers they face

Incentives to bring new technologies into the market

- Technology Fund could invest in private Venture Capital funds, purchase patent rights, license technologies, or guarantee purchases to help bring emerging climate-friendly technologies into the market
- Industrialized countries commit to targets, such as renewables targets, for domestic implementation of agreed technologies (linked with sectoral mitigation actions)

Technology II

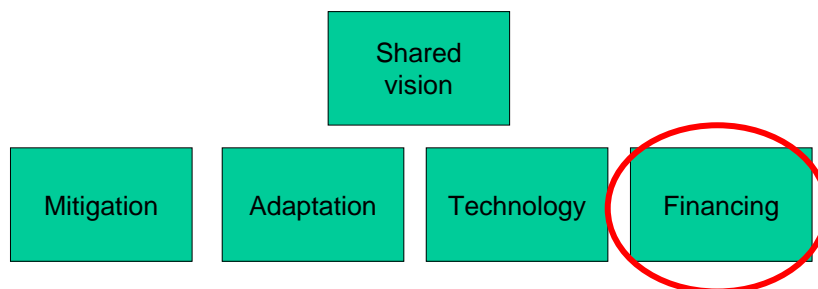
Long-term research and development for new technologies

- Industrialized countries double funding for climate change mitigation and adaptation research by 2020.
- Financial support to developing countries to participate in international research efforts

Effectiveness

- Effectiveness of package is evaluated at five year intervals

Content



Finance

Market mechanisms

- CDM extended to include more activities
- REDD as new market
- Linked to comparable emission trading systems

Financial support

- Financial support for specific mitigation measures, such as CCS
- Financial support for mitigation policies in developing countries, such as energy efficiency
- Financial support for implementation of adaptation actions and economic diversification
- Technology fund activities

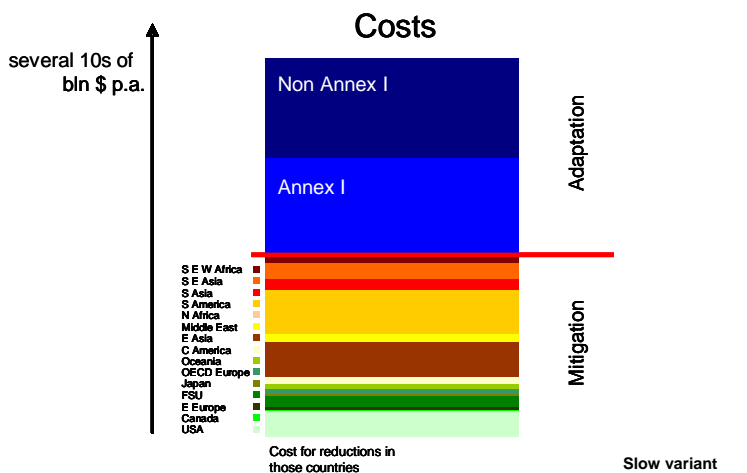
Finance

Funding sources

- Generate additional revenue of tens of billion USD per year for adaptation, mitigation and technology development and deployment through:
 - Imposing a levy on JI and international emission trading by auctioning 2% of AAUs and RMUs issued
 - Phased in auctioning allowances for international aviation and marine emissions

Establish agreed principles for governance of funding

Overall financial flows in 2020

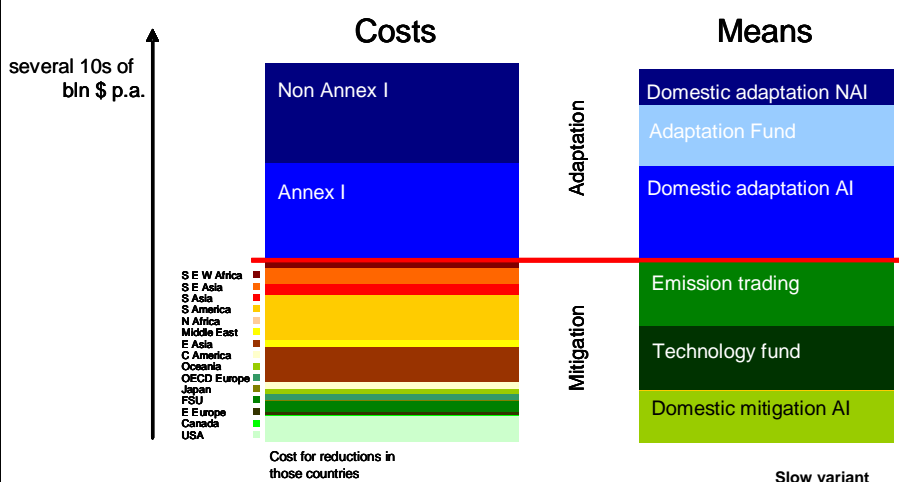


Source of mitigation costs: GLOCAF model



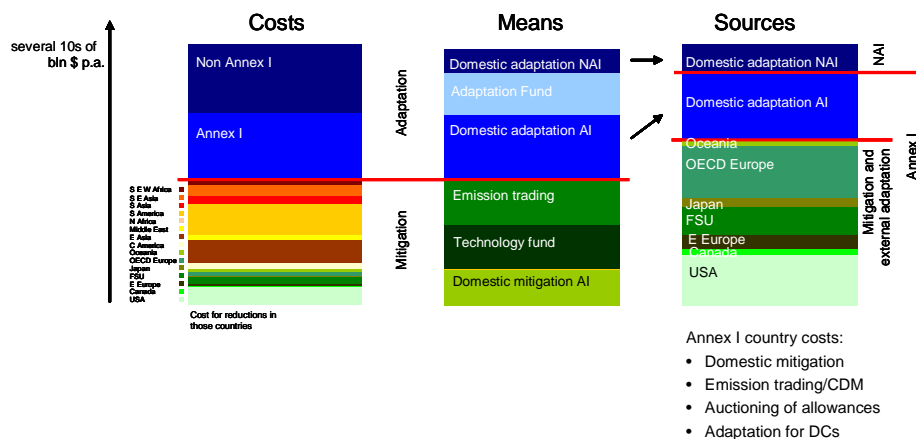
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Overall financial flows in 2020



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Overall financial flows in 2020



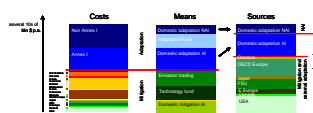
Slow variant



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Summary

- Comprehensive package
- To stimulate a discussion
- **Mitigation**
 - Deep reductions in developed countries
 - Some reductions in developing countries to the most part supported by developed countries
- **Adaptation**
 - Substantive support for adaptation activities
- **Technology**
 - Cooperation for technology development and deployment
- **Financing**
 - Expanding market mechanisms
 - New sources of financing



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