environment
& tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

Quantified emission reduction commitments by individual Annex I Parties
Presentation by South Africa

Workshop on issues relating to scale of emission reductions to be achieved by Annex I Parties

AWG-KP 7.1, Bonn, 27 March 2009

Ranges

Box 13.7 The range of the difference between emissions in 1990 and emission allowances in 2020/2050 for various GHG concentration levels for Annex I and non-Annex I countries as a group[a]

Scenario category	Region	2020	2050
A-450 ppm CO_2 –eq[b]	Annex I	–25% to –40%	–80% to –95%
	Non-Annex I	Substantial deviation from baseline in Latin America, Middle East, East Asia and Centrally-Planned Asia	Substantial deviation from baseline in all regions

- Annex I -25% to -40% below 1990 levels by 2020 for lowest stabilisation level assessed (IPCC AR4, p. 776, Box 13.7)
- Domestic effort for Annex I, carbon market only reduces costs
- Existing pledges from Annex I fall well short of the range
- Range provides a fixed point that should serves as a basis for individual Annex I commitments, not pledge-based

Three approaches

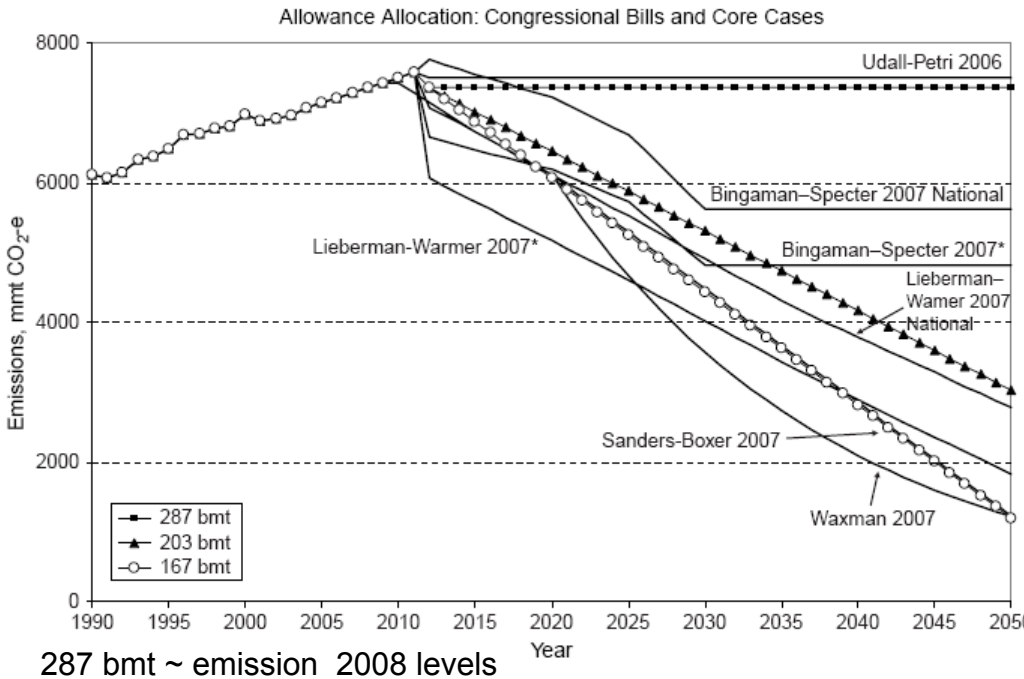
- Top-down (2 variants): to differentiate within Annex I, reflecting responsibility, capability, development and other factors
  - Based on *Responsibility, Capability and Development-based approach (RCD)*
    - Historical responsibility 1850-2000
    - Capability should include HDI, not just GDP / capita
    - Assumes a development threshold to remove poverty
  - Based on *Income, Emissions Intensity, Emissions trends and Population trends (4-factor)*
- Bottom-up: *In-country assessment*
  - Based on studies of mitigation potential for individual AI countries, in-country, or national communications (typically low)
    - With additional measures

In-country assessments

- National Communications
- In-country studies suggest more ambitious targets are possible
- Canada
  - "20% below 2006" → -9% below 1990 levels
  - National communication: -2% with add'l measures
  - IISD report -40% below 1990 in 2020
- Germany
  - Nat'comm: 21% by 2020 compared to 1990 levels **-41%** with *additional* measures
- Australia: -5% to -15% below 2000 levels by 2020
  - CAIT data set: +17% to +5% above 1990 levels

- Obama: -80% by 2050 (should be from 1990)
- ‘Return to’ 1990 levels by 2020 – no reduction
- Various studies – Pew, MIT, Paltsev
  - Sanders-Boxer is consistent with 167 bmt, and Waxman’s proposal is below this
- Argonne Nat’l Lab: moderate energy policies enough for return to 1990 levels by 2020
  - Need to see additional measures

USA



287 bmt ~ emission 2008 levels

203 bmt -50% from 1990 by 2050

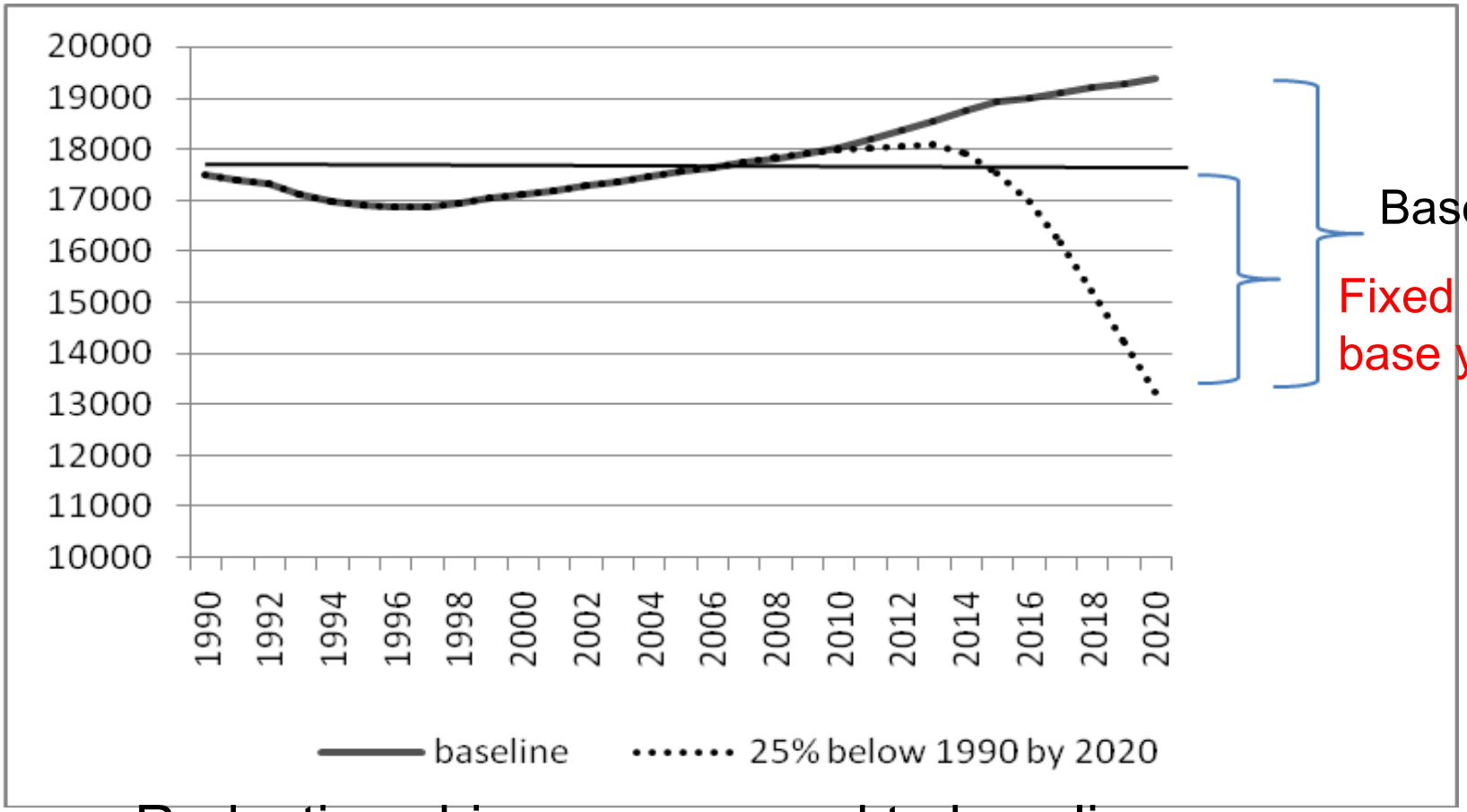
167 bmt ~ -80% from 1990 by 2050

Doing so little for so long, cannot be reason to be allowed to do less than required-by-science in future

Rationale and criteria

- Take responsibility and capability index, based on Art 3.1, drawing on Greenhouse Development Rights
- Exclude NAI, recalculate index for A1 countries only
  - Weighted index - 60% responsibility, 40% capability, different weightings possible
- Annex I mitigation requirement as group, here -40% below 1990 levels by 2020
- Assign mitigation requirement in relation to RCD index
- Defines number for each A1 country
  - reduction from countries baseline emissions in 2020
  - preferably as reduction from fixed base year, 1990
- Four indicators for mitgiation potential
  - adjusted for Annex I as group to -45%
  - Income, intensity, emissions trends and pop trends

Reduction against *baseline projection* very different to same percentage reduction against *fixed base year*



Reductions bigger compared to baseline
Baselines typically assume no change in lifestyles, production and consumption patterns

	RCD for -40%		Four Factor		RCD for -40%		Four Factor
	Baseline method	1990 method			Baseline method	1990 method	
Australia	9%	-28%	-36%	Latvia	-133%	-25%	-45%
Austria	-31%	-60%	-45%	Lithuania	-89%	-27%	-45%
Belarus	-65%	-15%	0%	Luxembourg	-44%	-55%	-45%
Belgium	-44%	-61%	-45%	Netherlands	-34%	-42%	-45%
Bulgaria	-5%	-16%	-45%	New Zealand	0%	-20%	-23%
Canada	-24%	-33%	-35%	Norway	-31%	-56%	-42%
Croatia	46%	-28%	-45%	Poland	6%	-30%	-45%
Czech Republic	-11%	-34%	-45%	Portugal	19%	-37%	-45%
Denmark	-45%	-48%	-45%	Romania	-14%	-18%	-45%
Estonia	-73%	-22%	-45%	Russian Federation	-43%	-17%	-57%
Finland	-10%	-36%	-45%	Slovakia	36%	-30%	-45%
France	-52%	-58%	-45%	Slovenia	122%	-36%	-45%
Germany	-65%	-51%	-45%	Spain	24%	-45%	-45%
Greece	18%	-33%	-45%	Sweden	-66%	-65%	-45%
Hungary	4%	-33%	-45%	Switzerland	-52%	-58%	-41%
Iceland	-20%	-35%	-32%	Turkey	71%	-15%	-45%
Ireland	-3%	-36%	-45%	Ukraine	-44%	-9%	-90%
Italy	-10%	-42%	-45%	United Kingdom	-80%	-70%	-45%
Japan	-24%	-38%	-36%	United States of America	-51%	-50%	-36%

Thank you