
Action Targets for Developing Countries

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Current international context

- Bali Action Plan: COP to consider “*nationally appropriate mitigation actions by developing country Parties ... in a measurable, reportable and verifiable manner.*”
- Developed countries insisting on active involvement of developing countries in post-2012 agreement
- Developing countries focusing on development, see developed countries as having caused the problem, and resistant to emission caps

How can action targets help?

- Provide relative certainty about level of effort required to reduce emissions – developing countries know what they're getting into
- Ensure emissions trajectories bend downward
- Do not require strong initial GHG inventories

What are Action Targets?

So what are action targets?

- An **action target** (AT) is a commitment to achieve or acquire a quantity of GHG *reductions* during a compliance period
 - Have to agree on definition of “reductions”, of course
- % of *actual* BAU emissions – projections can guide action, but in the end, requirement is based on actual emissions
 - Can think of as “pay as you go”
- Sometimes referred to as “cut and trade”, still involves a market mechanism

How would ATs basically work?

- Say country A adopts AT of 20% for period 2013-17. Has to demonstrate achieved or acquired reductions equal to 20% of BAU emissions. Or, thinking “pay as you go”, achieve 1 ton of reductions for every 5 tons emitted.
 - Projection of what BAU would be will guide actions, but at end, have to show 20% of actual BAU

How do you know “actual BAU”?

- BAU = Country A's *emissions* during commitment period + Country A's *domestic reductions* during commitment period
 - Reductions are emissions that would have been emitted but for domestic actions taken

$$BAU = E + R_{dom}$$

- If country A emits 80 tons and reduced 20 tons domestically, BAU = 80 + 20 = 100 tons

How much do you need to reduce?

- Required reductions can be determined by applying the AT to the BAU emissions

$$RR = AT \times (BAU) = AT \times (E + R_{dom})$$

- So Country A met AT domestically

$$RR = 20\% \times (80 + 20) = 20$$

- Note: RR is not 16 (20% of 80). If Country A did nothing, BAU would have been 100.

Could there be trading?

- Say Country A emitted 95 tons during commitment period, with 5 tons domestic reductions
- BAU still 100, RR still 20
- Only 5 tons domestic reductions, has to trade / acquire 15 more (presumably cheaper to buy than to achieve)

$$RR = 20\% \times (95 + 5) = 20$$

$$T = RR - R_{dom} = 20 - 5 = 15$$

Potential Advantages of Action Targets

The challenge

- Unreliable GHG inventories
- Volatile economies
- Developing economies must continue to grow
- Emissions trajectories have to bend down

- How can developing countries pick targets that are achievable, meaningful, and politically and economically viable?

Greater certainty about efforts

- Fixed targets (e.g., a cap) and intensity targets (emissions per unit GDP) both based on projections – projected BAU emissions, projected GDP
 - Highly speculative
 - Historical GHG inventories unreliable
- Because based on projections, can produce range of outcomes depending on actual economic and emissions growth
 - Significant reductions → No effort → Hot air

Comparisons of uncertainty

Country	Scenario	Projected GDP in 2015 (billion \$)	Projected BAU Emissions in 2015 (MtC)	-2% Fixed Targets			-2% Intensity Targets			-2% Action Targets		
				2015 Emissions with Target (MtC)	Required Change in Emissions (MtC) (%)		2015 Intensity with Target (MtC / billion \$)	Required Change in Emissions (MtC) (%)		2015 Emissions with Target (MtC)	Required Change in Emissions (MtC) (%)	
Brazil	Low	1228	131	149	+18	+14%	0.105	-2	-2%	128	-3	-2%
	Ref.	1421	152	149	-3	-2%	0.105	-3	-2%	149	-3	-2%
	High	1641	167	149	-18	-11%	0.105	+5	+3%	164	-3	-2%
China	Low	2066	989	1293	+304	+31%	0.438	-83	-8%	969	-20	-2%
	Ref.	2949	1319	1293	-26	-2%	0.438	-26	-2%	1293	-26	-2%
	High	3392	1456	1293	-163	-11%	0.438	+31	+2%	1427	-29	-2%
India	Low	934	342	368	+26	+8%	0.341	-23	-7%	335	-7	-2%
	Ref.	1077	375	368	-7	-2%	0.341	-8	-2%	368	-8	-2%
	High	1241	412	368	-44	-11%	0.341	+11	+3%	404	-8	-2%
South Korea	Low	975	158	174	+16	+10%	0.155	-7	-4%	155	-3	-2%
	Ref.	1126	178	174	-4	-2%	0.155	-4	-2%	174	-4	-2%
	High	1298	200	174	-26	-13%	0.155	+1	+1%	196	-4	-2%
Mexico	Low	838	150	171	+21	+14%	0.176	-2	-1%	147	-3	-2%
	Ref.	967	174	171	-3	-2%	0.176	-3	-2%	171	-3	-2%
	High	1114	198	171	-27	-14%	0.176	-2	-1%	194	-4	-2%

All data from EIA Int'l Outlook 2003

Comparative uncertainty

- Fixed targets
 - Low GDP – little or nothing may need to be done
 - High GDP – could be very hard to meet target
- Intensity targets
 - High GDP – little or nothing may need to be done
 - **Low GDP – greater reduction efforts needed**
 - Can fix this, but makes mechanism – and negotiations – more complicated
- Action targets
 - Low GDP & High GDP – pretty comparable

Example: China uncertainty

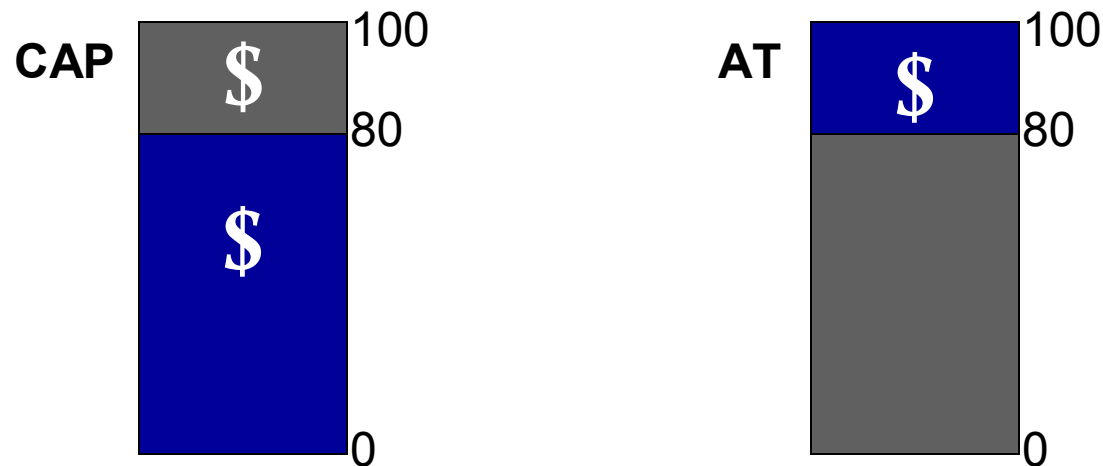
- Fixed targets
 - Low GDP – 304 MtC hot air, 31% increase
 - High GDP – 163 MtC reduction, 11% decrease
 - *467 MtC difference*
- Intensity targets
 - Low GDP – 83 MtC reduction, 8% decrease
 - High GDP – 31 MtC hot air, 2% increase
 - *114 MtC difference*
- Action targets
 - Low GDP – 20 MtC reduction, 2% decrease
 - High GDP – 29 MtC reduction, 2% decrease
 - *9 MtC difference*

Economic growth

- Developing economies must & will grow
- ATs allow growth; reductions tied to whatever actual BAU emissions are
 - Overly stringent fixed target could hurt developing economies
 - Intensity target requires more effort in times of low GDP

Lower compliance costs

- ATs may also impose lower compliance costs on emitters, given focus on *reductions*, not *emissions*
- Compare to cap-and-trade, where need allowances for each emission



Emissions reductions

- Developing country emissions will grow, but less than would have otherwise; reductions based on actual BAU emissions, so emissions trajectory has to bend downward
- Hot air not possible
- Fixed targets may not provide more environmental certainty for developing countries, given uncertainty of projections
 - Pick target too lax = hot air
 - Pick target too stringent = goes unmet

Implementing Action Targets

Critical implementation decisions

- Defining “reductions”
 - Devising definitions and accounting standards that enable quantifying emission reductions with reasonable accuracy and simplicity
 - Actions & policies; CDM plus
- Criteria & formula
 - As few variables as possible
 - Obligation set by formula, strengthens over time
- Compliance
 - Accuracy & oversight of GHG inventory less than other systems, given reduced uncertainty

Thank you!

- Action targets are a concept still being honed and developed, but the idea seems worthy of consideration
- Feedback is very, very welcome

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