

Draft Intended Nationally Determined Contribution

Tirana, 14 August 2015

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- What to decide for an INDC?
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INTERNATIONAL CONTEXT FOR AN INDC



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Environment and Climate Regional Accession Network **ECRAN**

International framework 1.

Further advancing the Durban Platform (1/CP.19) – Warsaw

To invite all Parties to initiate or intensify domestic preparations for their **intended nationally determined contributions**, without prejudice to the legal nature of the contributions, in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties **towards achieving the objective of the Convention** as set out in its Article 2 and to communicate them **well in advance of the twenty-first session of the Conference of the Parties** (by the first quarter of 2015 by those Parties ready to do so) in a manner that facilitates the **clarity, transparency and understanding of the intended contributions**, without prejudice to the legal nature of the contributions;



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International framework 2.

Lima call for action – 1/CP.20

9. Reiterates its invitation to each Party to communicate to the secretariat its intended nationally determined contribution towards achieving the objective of the Convention as set out in its Article 2;

10. Agrees that towards achieving the objective of the Convention as set out in its Article 2 **each Party's intended nationally determined contribution will represent a progression beyond the current undertaking of that Party;**

11. Also agrees that the least developed countries and small island developing States may communicate information on strategies, plans and actions for low greenhouse gas emission development reflecting their special circumstances in the context of intended nationally determined contributions;

12. Invites all **Parties to consider communicating their undertakings in adaptation planning or consider including an adaptation component** in their intended nationally determined contributions;



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International framework 3.

Lima call for action – 1/CP.20

13. **Reiterates** its invitation to all Parties to communicate their intended nationally determined contributions well in advance of the twenty-first session of the Conference of the Parties (by the first quarter of 2015 by those Parties ready to do so) in a manner that facilitates the clarity, transparency and understanding of the intended nationally determined contributions;

14. Agrees that the information to be provided by Parties communicating their intended nationally determined contributions, in order to facilitate clarity, transparency and understanding,

may include, as appropriate, inter alia, quantifiable information on the reference point (including, as appropriate, a base year), time frames and/or periods for implementation, scope and coverage, planning processes, assumptions and methodological approaches including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals, and how the Party considers that its intended nationally determined contribution is fair and ambitious, in light of its national circumstances, and how it contributes towards achieving the objective of the Convention as set out in its Article 2



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Submitted INDCs

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Benin - 7/8/15 - Avoiding cumulative emissions of 120 million tonnes of carbon dioxide equivalent between 2020 and 2030, compared to business as usual. Of this, 5MtCO₂e would be avoided in the energy sector and 115MtCO₂e from land and forests.

Trinidad and Tobago - 6/8/15 - By 2030, an unconditional 30% reduction in business-as-usual CO₂, methane and nitrous oxide emissions from transport, power and industry. A conditional 45% reduction is also on the table.

Macedonia - 6/8/15 - A 30 or 36% reduction in energy-related carbon dioxide emissions by 2030, compared to business as usual. These targets are equivalent to increases against a 1990 baseline of 20 or 31%. Macedonia will consider the use of carbon markets.

Monaco - 29/7/15 - A 50% reduction in greenhouse gas emissions by 2030 on 1990 levels, without the use of carbon credits if possible, but without ruling them out. Includes a section on adaptation.

Kenya - 24/7/15 - A reduction in emissions of 30% by 2030 relative to a business-as-usual scenario of 143 MtCO₂e. This is subject to financial and technological international support. "Does not rule out" use of international market mechanisms. Includes plan for adaptation actions.

Marshall Islands - 21/7/15 - A 32% reduction in emissions below 2010 levels by 2025, with a further indicative target to reduce emissions by 45% below 2010 levels by 2030, "with a view to achieving net zero GHG emissions by 2050, or earlier if possible". The Marshall Islands could increase its target when it is reviewed in five years' time. There are no conditions attached to the submission, but it says that many of its proposed actions will depend on the availability of international support.



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Submitted INDCs

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Japan - 17/5/15 - A 26% reduction in emissions on 2013 levels by 2030. Includes precise information on how it will generate its power by 2030.

New Zealand - 7/7/15 - A 30% reduction by 2030 on 2005 levels, which translates to an 11% reduction on 1990 levels. New Zealand says its INDC is conditional upon confirmation of accounting rules in Paris that will allow it "unrestricted access" to global carbon markets.

Singapore - 3/7/15 - A 36% reduction in emission intensity by 2030, compared to 2005 levels, with emissions peaking "around 2030". Singapore intends to achieve this without international market mechanisms, though will continue to study their potential. The [INDC](#) contains information on adaptation activities.

Iceland - 30/6/15 - Intends to take part in the EU's collective effort to reduce emissions across the region by 40% on 1990 levels by 2030. The precise commitment it will take on as part of this effort sharing approach has yet to be decided; if no agreement is reached, Iceland will submit a new INDC.

South Korea - 30/6/15 - A 37% reduction on business-as-usual emissions by 2030. Its INDC estimates that Korea's BAU emissions in 2030 will be 850.6 megatonnes of carbon dioxide equivalent. Korea will decide whether or not to incorporate its land use sector, which acts as a net sink, "at a later stage". It will partly use carbon credits to achieve its target.

China - 30/6/15 - A peak in carbon dioxide emissions by 2030, with "best efforts" to peak earlier. China has also pledged to source 20% of its energy from low-carbon sources by 2030 and to cut emissions per unit of GDP by 60-65% of 2005 levels by 2030, potentially putting it on course to peak by 2027.

Serbia - 30/6/15 - A 9.8% reduction on 1990 levels by 2030. Serbia has also included a section on [loss and damage](#) - extreme climate and weather conditions have cost the country €5bn since 2000. Adaptation measures implemented between 2000 and 2015 have cost around \$68m, it adds.



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Submitted INDCs

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Ethiopia - 10/6/15: A 64% reduction on business as usual emissions by 2030, equivalent to a 3% reduction against a 2010 baseline.

Morocco - 5/6/15: An unconditional 13% reduction on business as usual emissions by 2030, with a conditional 32% reduction if Morocco receives "new sources of finance and enhanced support".

Canada - 15/5/15: A 30% reduction on 2005 greenhouse gas emissions, by 2030. This includes possible use of international emissions credits. It also includes the land sector and forestry.

Andorra - 1/5/15: A 37% reduction in greenhouse gas emissions from a business-as-usual scenario by 2030.

Liechtenstein - 23/4/15: A 40% reduction on 1990 levels by 2030. This includes the possibility to achieve emissions reductions abroad, but with the primary focus on domestic emissions.

Gabon - 1/4/15: At least a 50% reduction in greenhouse gases by 2025 compared to a business as usual scenario. This would mean emissions would hit roughly the same levels as they were in 2000. They also include a national adaptation strategy focused on coastal areas.

Russia - 31/3/15: 25-30% domestic reduction in greenhouse gases by 2030 compared to 1990 levels. The Russian pledge includes "maximum possible account" of the land sector

US - 31/3/15: 26-28% domestic reduction in greenhouse gases by 2025 compared to 2005, making its "best effort" to reach the 28% target. This includes the land sector and excludes international credits "at this time".

Mexico - 30/3/15: Unconditional 25% reduction in greenhouse gases and short lived climate pollutants from a business-as-usual scenario by 2030, which would rise to 40% subject to the outcome of a global climate deal. For the unconditional pledge, this means peaking net emissions by 2026 and reducing emissions intensity per unit of GDP by around 40% from 2013 to 2030.

Norway - 27/3/15: At least a 40% reduction in greenhouse gases by 2030 compared to 1990 levels, including use of EU carbon credits.

EU - 6/3/15: At least a 40% domestic reduction in greenhouse gases by 2030 compared to 1990 levels.

Switzerland - 27/2/15: 50% reduction in greenhouse gases by 2030 compared to 1990 levels, partly using carbon credits from international mechanisms.



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WHAT TO DECIDE FOR AN INDC?



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Information in the INDC

- The reference point (including, as appropriate, a base year)
- Time frames and/or periods for implementation
- Scope and coverage
- Planning processes
- Assumptions and methodological approaches including those for estimating and accounting for GHG emissions and, as appropriate, removals
- How is the INDC fair and ambitious, in light of its national circumstances, and how it contributes towards achieving the objective of the convention as set out in its Article 2
- Other information



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Questions for an INDC

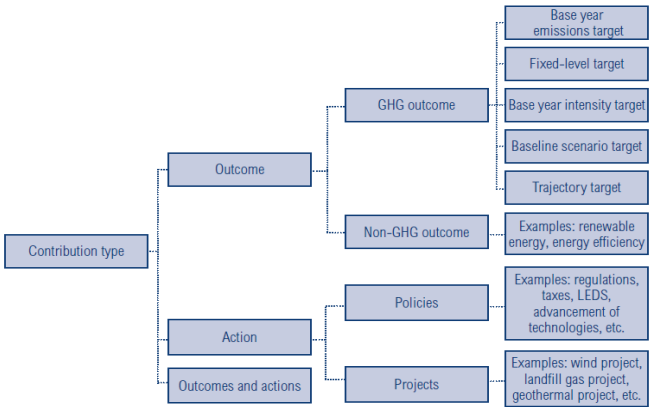
- Contribution type: outcome or action?
- Choice of gases?
- Choice of sectors?
- Choice of the way expressing the target?
- Choice of the time-frame
- Choice of the target level
- GHG impact
- Assessment of fairness
- Assessment of ambition
- Transparency
- Treatment of LULUCF sector
- Use of flexible mechanisms



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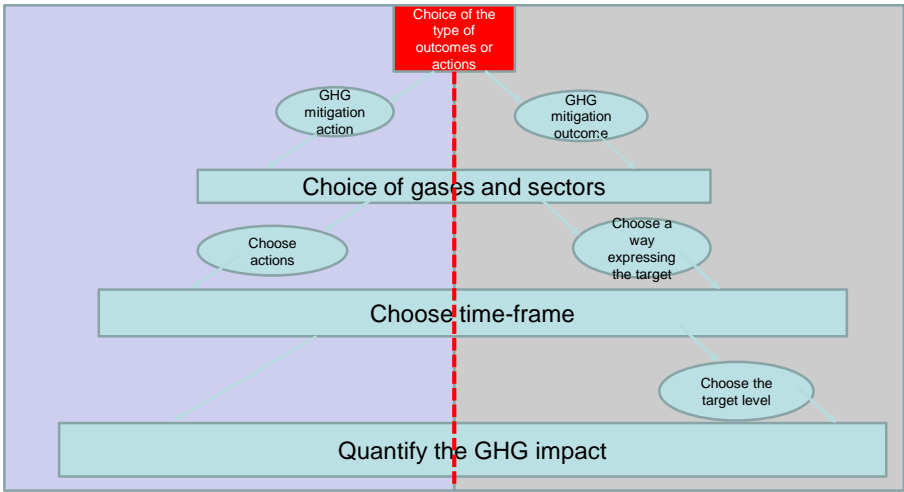
Source: Designing and Preparing Intended Nationally Determined Contributions (INDCs).
WRI/UNDP



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CHOICE OF THE WAY EXPRESSING THE TARGET



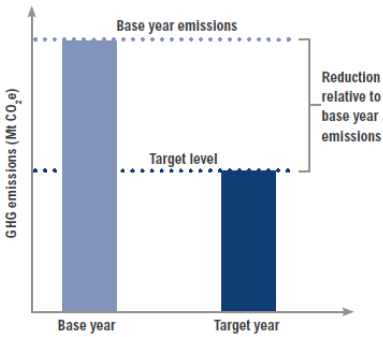
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Enviroment and Climate
Regional Accession Network **ECRAN**

Base year GHG
emission target -
reduction in
greenhouse gas
emissions relative to a
historical base year

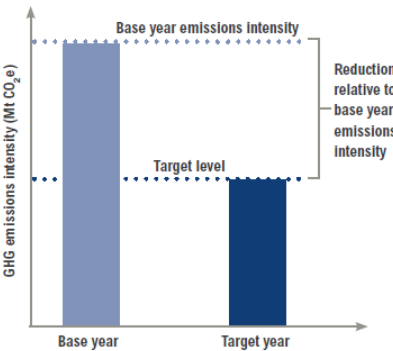


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Base year GHG intensity target: a reduction in GHG intensity relative to a historical base year (e.g. GHG reduction in carbon intensity per unit of GDP by 2030 compared to 2005 levels)

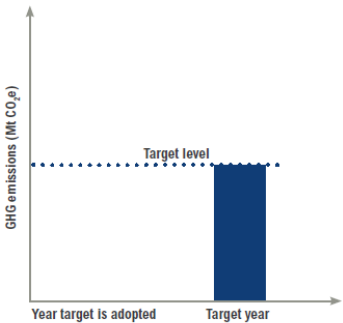


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Fixed level target: a reduction in greenhouse gas emissions to a fixed, absolute level e.g. carbon neutrality

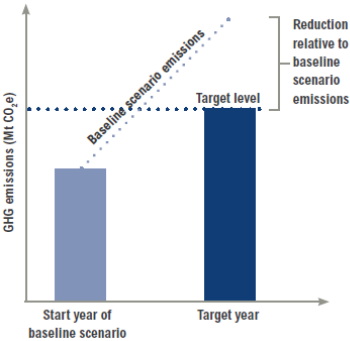


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Baseline scenario
target: a reduction in GHG emissions relative projected future emissions (e.g. x% GHG reduction below Business As Usual by a specific date)

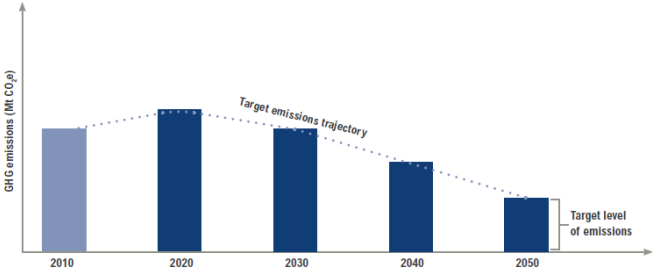


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Trajectory target – reduction of the greenhouse gas emissions to specified quantities in multiple target years of periods over a longer period. This allows for the carbon budget approach and scenarios with peaking, stagnating and declining emission parts



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HOW TO ANSWER TO THE QUESTIONS FOR ALBANIA



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Questions for an INDC

- Contribution type: outcome or action?
- Choice of gases?
- Choice of sectors?
- Choice of the way expressing the target?
- Choice of the time-frame
- Choice of the target level
- GHG impact
- Assessment of fairness
- Assessment of ambition
- Transparency
- Treatment of LULUCF sector
- Use of flexible mechanisms



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Choice of the way expressing the target

- Base year GHG emission target - reduction in greenhouse gas emissions relative to a historical base year
- Base year GHG intensity target: a reduction in GHG intensity relative to a historical base year (e.g. GHG reduction in carbon intensity per unit of GDP by 2030 compared to 2005 levels)
- ~~Fixed level target: 2 tons/capita emission level by 2050?~~ ~~issions to a fixed, absolute level e.g. carbon neutrality~~
- Baseline scenario target: a reduction in GHG emissions relative projected future emissions (e.g. x% GHG reduction below Business As Usual by a specific date)
- ~~Trajectory target — reduction of the greenhouse gas emissions to specified quantities in multiple target years of periods over a longer period. This allows for the carbon budget approach and scenarios with peaking, stagnating and declining emission parts~~



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Choice of gases

- Carbon Dioxide (CO₂)
- ~~• Methane (CH₄)~~
- ~~• Nitrous Oxide (N₂O)~~
- ~~• Hydrofluorocarbons (HFCs)~~
- ~~• Perfluorocarbons (PFCs)~~
- ~~• Sulphur hexafluoride (SF₆)~~
- ~~• Nitrogen trifluoride (NF₃)~~



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Choice of sectors

Table 1: Anthropogenic greenhouse gas emissions in Albania, (kt)

Gases	Sectors	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
CO₂	1 Energy	3,992.89	4,024.08	4,142.96	4,311.75	4,556.10	4,493.32	4,530.38	4,579.05	4,632.29	4,969.44
	2 Industrial Processes	520.00	852.00	806.00	966.00	1,043.00	1,118.00	1,195.00	1,470.00	1,547.00	1,623.12
	3 Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4 Land-Use Change & Forestry	3,259.00	1,770.00	1,114.00	409.00	572.00	486.00	187.00	215.00	65.00	302.00
	5 Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	7,771.89	6,646.08	6,062.96	5,686.75	6,171.10	6,097.32	5,892.38	6,262.05	6,114.29	6,309.56
CH₄	1 Energy	4.36	4.39	4.56	4.78	5.06	4.99	5.03	5.09	5.15	5.15
	2 Industrial Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3 Agriculture	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	4 Land-Use Change & Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5 Waste	24.14	24.24	24.19	24.65	26.69	26.96	30.30	29.66	29.08	35.28
	Total	4.41	4.47	4.64	5.06	5.35	5.28	5.32	5.38	5.43	5.43
N₂O	1 Energy	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	2 Industrial Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3 Agriculture	75.74	71.74	69.55	70.09	67.02	66.63	65.29	60.93	57.17	53.66
	4 Land-Use Change & Forestry	1.01	1.04	1.01	1.01	1.02	1.01	1.02	1.01	1.01	1.03
	5 Waste	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28
	Total	98.98	97.11	94.84	95.85	94.83	94.70	96.71	92.70	87.36	90.97
CO₂eq	1 Energy	4,112.35	4,144.17	4,266.62	4,443.13	4,693.36	4,629.11	4,667.01	4,716.94	4,771.44	5,108.59
	2 Industrial Processes	520.00	852.00	806.00	966.00	1,043.00	1,118.00	1,195.00	1,470.00	1,547.00	1,623.12
	3 Agriculture	1,551.55	1,589.46	1,463.32	1,474.51	1,409.80	1,401.37	1,372.99	1,281.10	1,201.77	1,127.73
	4 Land-Use Change & Forestry	3,280.21	1,791.88	1,135.23	430.27	593.32	387.87	188.34	234.23	-43.73	-261.39
	5 Waste	590.64	592.74	591.69	601.35	647.29	652.96	723.1	750.66	692.48	827.68
	Total	10,054.75	8,890.25	8,262.86	7,915.26	8,386.76	8,308.69	8,146.43	8,432.93	8,173.97	8,425.73

(Source: IPCC Methodology-Albania, years 2000-2009)



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Choice of sectors and gases

What does the limitation mean?

- Total emissions in 2009: 8425 kt CO₂ eq
- Emissions covered by the INDC (2009): 6593 kt CO₂ eq
- Energy sector emissions (2009): 5108 kt CO₂ eq



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Fairness and ambition

- Egalitarian: each human being has an equal right to use the atmosphere; this translates into schemes based on per capita entitlement
- Sovereignty and acquired rights: all countries have a right to use the atmosphere and current emissions constitute a 'status quo right'; this translates into schemes based on grandfathering entitlements.
- Responsibility / polluter pays: the greater the contribution to the problem, the greater the share in the mitigation / economic burden.
- Capability: the greater the capacity to act or ability to pay, the greater the share in the mitigation / economic burden



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Table SPM.1: Key characteristics of the scenarios collected and assessed for WG3 AR5. For all parameters, the 10th to 90th percentile of the scenarios is shown¹. [Table 6.3]

CO ₂ eq Conc in 2100 [ppm CO ₂ eq]	Representative Concentration Pathways (RCPs)		CO ₂ emission budget ² (GtCO ₂)		CO ₂ eq emissions in 2050 relative to 2010 (%)	Temperature change (relative to 1850-1870) ^{3,4}			
			2011-2050	2011-2100		2100 Temperature (degrees C) ⁵	Probability of staying below 1.5 degrees C (%)	Probability of staying below 2 degrees C (%)	Probability of staying below 2.5 degrees C (%)
<430			Only limited number of studies from individual research groups						
430 – 480	RCP 2.6	Total range	550-1270	630-1180	31-65	1.5-1.8 (1.2-2.3)	Less likely than not	Likely	Very likely
480 – 530		No exceedance of 530 ppm CO ₂ eq	900-1220	1020-1280	43-60	1.8-1.9 (1.4-2.4)	Unlikely	More likely than not	Likely
		Exceedance of 530 ppm CO ₂ eq	1190-1620	990-1550	51-119	1.9-2.2 (1.5-2.9)	Very unlikely	More unlikely than not	More likely than not
530 – 580		No exceedance of 580 ppm CO ₂ eq	1110-1600	1220-2130	52-98	2.1-2.3 (1.7-2.9)	Very unlikely	More unlikely than not	Likely
		Exceedance of 580 ppm CO ₂ eq	1510-1790	1160-1970	98-123	2.2-2.3 (1.7-2.9)	Extremely unlikely	Unlikely	More likely than not
580 – 650	RCP 4.5	Total range	1260-1640	1880-2430	68-139	2.3-2.7 (1.8-3.4)	Extremely unlikely	Unlikely	About as likely as not
650 – 720		Total range	1320-1720	2620-3320	103-131	2.6-2.9 (2.1-3.6)	Exceptionally unlikely	Very unlikely	Unlikely
720 – 1000	RCP 6.0	Total range	1600-1930	3620-4990	128-168	3.1-3.7 (2.5-4.7)	Exceptionally unlikely	Extremely unlikely	Unlikely to very unlikely
>1000	RCP 8.5	Total range	1840-2320	5350-6950	165-220	4.1-4.8 (3.3-6.3)	Exceptionally unlikely	Exceptionally unlikely	Exceptionally unlikely



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Fairness and ambition

	1990	2000	2010	2030
World Total emission Gg	38,232,170.06	40,563,437.00	50,911,113.68	
EU 28	5,636,933.47	5,103,281.75	4,834,156.78	3,382,160.08
EU 28 population	475,160,781.00	486,958,178.00	503,234,845.00	518,499,055.00
EU emission/capita	11.86	10.48	9.61	6.52
Population of Albania	3,286,000	3,196,130	3,150,143	3,310,564
Albania's emission Gg CO2eq	4,341.02	6,774.54	8,687.00	
Albania's emission/capita	1.32	2.44	2.76	
Albania's emissions in % of world emissions	0.011	0.017	0.017	

¹ 2009 inventory data is used as proxy data for 2010 as there is no GHG inventory data available for Albania for 2010.

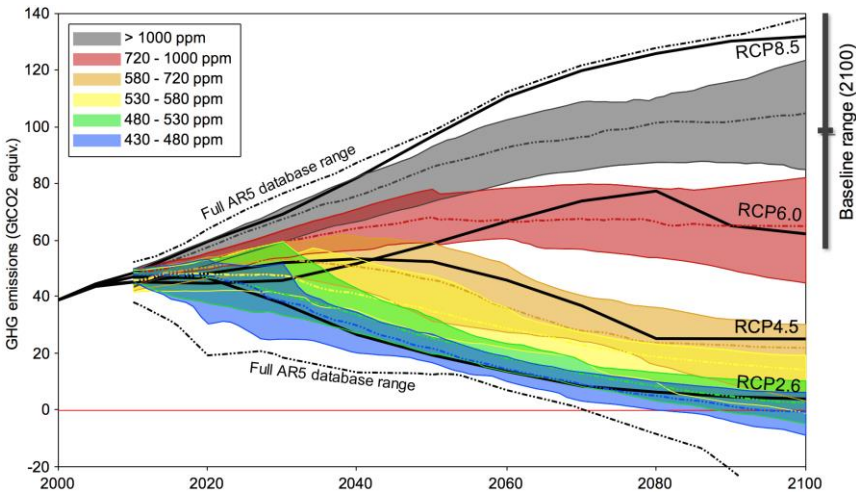


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Emission futures - global

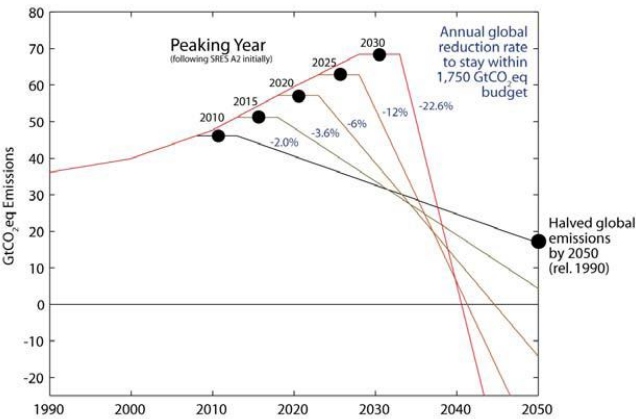


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Peaking and decrease



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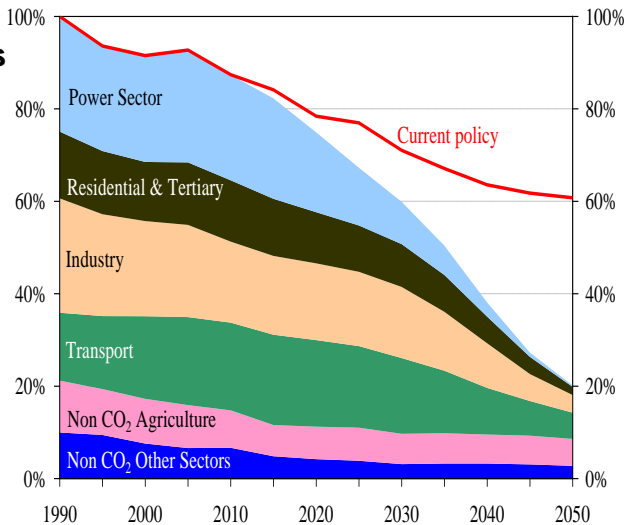
EU: Focus on Climate policies

80% domestic reduction in 2050 is feasible

- with currently available technologies,
- with behavioural change only induced through prices
- If all economic sectors contribute to a varying degree & pace.

Efficient pathway:

- 25% in 2020
- 40% in 2030
- 60% in 2040



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Questions for an INDC

- Contribution type: outcome or action? - **outcome**
- Choice of gases? – **CO₂**
- Choice of sectors? – **economy-wide**
- Choice of the way expressing the target? – **deviation from baseline**
- Choice of the time-frame **2015-2030**
- Choice of the target level
- GHG impact
- Assessment of fairness - **fair**
- Assessment of ambition
- Transparency
- Treatment of LULUCF sector - **excluded**



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Thank you for your attention!

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