



**IPCC Synthesis Report
Fourth Assessment Report**

Comments on the Final Government Draft

GOVERNMENT and ORGANIZATION COMMENTS

– TOPIC 4 (all batches to 7 November 2007) –

November 7, 2007



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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Topic - Batch - Comment	Page	Line	To Page	To Line	Comment
4-A-1	0	0			Well-written in general. (Government of Argentina)
4-A-2	1	1	1	2	To accurately differentiate this Topic from the following one, and to make the title shorter and therefore more useful as a title, we suggest it should be "Adaptation and mitigation options and responses to 2030". The detail of the scope of the topic can be removed from the title and either set out briefly in introductory text (as was done for Topic 2), before section 4.1, or moved to Section 4.1 simply by including the extra words 'at global and regional levels' in the second sentence of that section. Thus: "This topic focuses on adaptation and mitigation options that can be implemented by 2030, at global and regional levels, and their inter-relationship with sustainable development; ..." (Government of New Zealand)
4-A-3	1	1	1	10	It would be clearer to include the 2030 time horizon in the title of the topic. (this would help distinguish it from Topic 5). (Government of Australia)
4-A-4	1	1	1	2	Adaptation is not just about sustainable development. Our obligation extends beyond human survival of climate change. (WWF International)
4-A-5	1	6	1	17	There are no findings in this section 4.1, an omission that needs correcting. we suggest including here as a bolded header the lines from 18-31 of page 8 of the previous draft of Topic 4 ("There is high confidence that adaptation and mitigation can together reduce the risks of climate change and can act as complementary response measures to climate change" (and some supporting text drawn from the original 2 bullets). This would meaningfully address the relationship between mitigation and adaptation, something that is not otherwise adequately addressed elsewhere in Topic 4. (Government of Canada)
4-A-6	1	8	1	12	The previous draft had a very important statement on the need for both policy options, which is no longer contained in the current draft. Please reconstitute the following text from the previous draft (p. 1, ll. 8-9) after the first sentence: "Both responses are needed, adaptation to respond to the impacts of past and future climate change, and mitigation to reduce future impacts." (Government of European Community)
4-A-7	1	8	1	9	Revise sentence to read "Societies can respond to climate change by adapting to its impacts and by reducing GHG emissions (mitigation), thereby reducing the rate and magnitude of change." (Government of United States of America)
4-A-8	1	8	1	12	Reintroduce the simple and clear statement from the previous draft "It is clear that both responses are needed, adaptation to respond to the impacts of past and future climate change, and mitigation to reduce future impacts". While this concept is discussed more fully in section 5.3, it needs to also be included under Issue 4. (Government of Canada)
4-A-9	1	8	1	9	Please rephrase as follows: "Societies can respond to climate change by adapting to its impacts and by reducing the rate and magnitude of climate change through reduction of GHG emissions (mitigation)."

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					(Government of Switzerland)
4-A-10	1	8	1	9	For clarity of expression, insert "by" before "reducing the rate". (Government of European Community)
4-A-11	1	8	1	8	"Societies" IBID (WWF International)
4-A-12	1	12	1	12	We suggest replacing the phrase "... extends the timeframe." by "... over a longer timeframe." to make the sentence read better. (Government of New Zealand)
4-A-13	1	14	1	17	The capacity to adapt and mitigate is mainly dependent on the world-view and the self-conception of a society and its leaders. Most important is a view that accepts human beings as part of the manyfold interlinked world-system (incl. ecosystems and artificial human systems) in which sustainable principles are an essential part of survival and not just something that is "nice-to-have". The paragraph should make a statement like that and thus put the technical solutions into perspective of that. (Government of Switzerland)
4-A-14	1	14	1	14	Please rephrase as follows: "The capacity to adapt and to mitigate is dependent on socio-economic and environmental circumstances and on the availability of information and technology." (Government of Switzerland)
4-A-15	1	21	1	22	The statement that "Adaptation reduces vulnerability" is not universally correct, because some adaptation to climate change may be ineffective. Reverse to the corresponding statement in the previous draft, which was much better: "There is high confidence that adaptation can reduce vulnerability" to climate change. Furthermore, the temporal reference "especially in the short-term" is not correct. Most adaptations are effective (though possibly not sufficiently so) in the long-term as well, and some adaptations work only in the long term (e.g., changes in town and regional planning, or in building codes; improved coastal protection; major behavioural changes). Suggest to change to "Some adaptations can be effective in the short term (up to a few years) whereas others are effective in the long term only (several decades)". (Government of European Community)
4-A-16	1	21	1	22	the old wording in the previous draft ("There is high confidence that adaptation can reduce vulnerability, especially in the short term") seems to be more appropriate and more consistent with other parts of the report. Change to old wording, and add, for better balance: "However, adaptation alone is not expected to cope with all the projected effects of climate change, especially over the long term as most impacts increase in magnitude." (Government of Germany)
4-A-17	1	21	1	22	The confidence statement that used to be attached to this heading has been deleted. We would like to see it reinstated. The sentence should begin "There is high confidence that....." (Government of Canada)

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4-A-18	1	23	2	35	Vulnerability can also increase if Adaptation does not have a global approach. It could be zones, countries or social groups while adapting themselves, could cause a des-adaptation in other regions, countries or social groups. (Government of Argentina)
4-A-19	1	24	1	28	Again, this goes beyond people. Planning only for people's needs and not the environment is a recipe for the degradation of both. (WWF International)
4-A-20	1	25	1	26	Presumably trends in economic globalisation can also reduce vulnerability (eg by reducing poverty, increasing adaptive capacity). It is not clear whether this means that the net consequence of globalisation is to increase vulnerability, or that some of the consequences of globalisation are negative. Risk that this sentence could be seen as 'political' (a criticism of globalisation) and not evidence-based (dependent on the quality of the supporting information referred to in WGII). We suggest the sentence be clarified. If possible identify specific trends associated with economic globalisation. (Government of United Kingdom)
4-A-21	1	25	1	25	Please add "inequity" after "unequal access" to resources to account for inequalities in areas such as power relations, gender, ethnicity, indigenous populations, migrations, refugees, children. (Government of Sweden)
4-A-22	1	27	1	27	Add "7.2" to cited sections (Government of United States of America)
4-A-23	1	30	1	30	"Societies" IBID (WWF International)
4-A-24	1	33	1	34	First, substitute "any" for "the" before "adverse impacts". Second, insert "over the next few decades" at the end of the sentence which currently ends with "variability". This is to make it even clearer that adaptation options are necessary over the short term, since WG1 showed that climate change is relatively insensitive to emissions scenarios out to 2030. (Government of United States of America)
4-A-25	1	45	1	45	Change "5.2" to "5.5" (Government of United States of America)
4-A-26	2	3	2	3	Please remove the comma between 'as' and 'agriculture'; it is not good English. (Government of New Zealand)
4-A-27	2	6			"benefit-cost ratios" is normally stated "cost-benefit ratios". (Government of Japan)
4-A-28	2	8	2	8	Replace "now" by "early in the planning stage" (Government of European Community)

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4-A-29	2	11	2	12	Why do women have less capacity in adapting to climate change? I do not think that this statement is true (at least not for central Europe). Is this statement politically correct? (Government of Switzerland)
4-A-30	2	11	2	13	Some ecosystems and species also have a lower adaptive capacity. (WWF International)
4-A-31	2	11	2	13	Please ensure consistency with WG SPM and with SYR SPM: here "women" and "indigenous people" are mentioned, in other places it is "the ill", and neither women nor indigenous people are mentioned. (Government of Belgium)
4-A-32	2	13	2	13	Insert the word "adaptive" before "capacity" at the end of the bold statement. (Government of United States of America)
4-A-33	2	15	2	19	The "capacity to adapt" is a capacity, not a process. Suggest to replace "The capacity to adapt is a dynamic process influenced by a society's productive base including" by "Adaptive capacity depends on". (Government of European Community)
4-A-34	2	21	2	27	This paragraph aims to correctly point out that effective action depends not only on the availability of economic resources but also on other factors such as governance. However, these non-economic factors are generally included in the conceptualization of adaptive capacity, which would make the second sentence incorrect. A clearer formulation would be "Without good governance and effective institutions, economic resources do not automatically translate into effective action, as highlighted by the large damage caused by recent extreme climate events in high-income countries." (Government of European Community)
4-A-35	2	21	2	23	Please include 'institutional' in the list of constraints. (Government of New Zealand)
4-A-36	2	25	2	27	It is strongly recommended that the following section is maintained in the Final Report; 'For example, a heat wave in 2003 caused high levels of mortality in European cities (especially among the elderly), and in 2005 Hurricane Katrina caused large human and financial costs in the United States.' (Government of Japan)
4-A-37	2	26	2	27	Re: eg a heat wave in 2003 caused high levels of mortality in European cities (especially among the elderly), and in 2005 Hurricane Katrina caused large human and financial costs in the United States - these examples may suggest that SYR authors directly attribute these events to anthropogenic climate change - is this so? (Government of Australia)
4-A-38	2	26	2	27	In fact the region affected by Hurricane Katrina has yet to recover over 2 years later, indicating that we may not fully understand what factors convey "high" adaptive capacity. In fact, there may be no such thing.

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					(WWF International)
4-A-39	3	1	3	1	Unlike the WG2 Tech Summary Table TS.6, Table 4.1 does not indicate the kind of climate change impact to which the adaptation measure is responding. Therefore, the U.S. Government suggests a note for the title or below the table stating “Multiple aspects of climate change (e.g., higher temperatures, changed precipitation patterns, increased storminess, etc.) are considered for the adaptation options.” (Government of United States of America)
4-A-40	3	1			Table 4.1: Irrigation should be added as adaptation option in Agriculture. (Government of Argentina)
4-A-41	3	1			Table 4.1.: This table is well done and covers a lot of vital information. Maintaining this table as is in the final publication is strongly recommended. (Government of Japan)
4-A-42	3	1	3	1	Table 4.1, Energy Sector, Underlying Policy Framework: Replace “use of alternative sources” with “end-use demand reduction and use of low- or zero-carbon energy sources”. (Government of United States of America)
4-A-43	3	1			Table 4.1 Row 7(Energy), Column 2. "...single sources of energy" H2O cooled power plants (coal, nuclear). (WWF International)
4-A-44	3	1			Table 4.1 Row 1(Water), Column 2. Add early protection of environmental flows and cap & trade systems. (WWF International)
4-A-45	3	1	3	1	Replace “renewable sources” with “low- or zero-carbon energy sources”. The point should be to adapt the energy system for low-carbon production and reduced end-use demand, as well as improved infrastructure. (Government of United States of America)
4-A-46	3	1			In the Energy category of Table 4.1, the phrase "reduced dependence on a single source, e.g. large hydropower dams" does not make any sense unless written in relation to a major GHG emitting source like coal or oil, not (large) hydropower which is by anybody's definition a "cleaner" source, certainly in relation to fossil fuels. We would thus strongly recommend that the phrase "e.g. large hydropower dams" be deleted. (Government of Canada)
4-A-47	3	1	3	1	In first column of table, in cell on Human Health, change “14.5” to “14.4” or “14.4.5”. Section 14.5 does not support the statement, while Section 14.4.5 does. (Government of United States of America)
4-A-48	4	1	5	21	This section is missing extremely important text from the WG3 SPM that is needed for readers to properly interpret the statements and numbers. – The definitions of “economic potential”, “market potential”, “bottom-up studies”, and “top-down studies” from WG3 Box SPM-2 should be

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					included explicitly in this SPM as a footnote (not via a reference to the glossary as is currently done with Footnote 15). – A footnote is needed to clarify that the top-down estimates are from climate stabilization scenarios and imputed prices (WG3 SPM page 9, second bullet under “Top-down studies”), which are very different from the constant price carbon paths assumed by many bottom-up studies. – A footnote is needed reflecting the fact that all the estimates assume an idealized global climate policy (WG3 Box SPM-3). The uncertainties note from the WG3 SPM should be added (WG3 SPM, page 9): “Uncertainties in the estimates are shown as ranges in the tables below to reflect the ranges of baselines, rates of technological change, and other factors that are specific to the different approaches. Furthermore, uncertainties also arise from the limited information for global coverage of countries, sectors, and gases.” (Government of United States of America)
4-A-49	4	1			Section 4.3 comment: We are concerned at the inadequate reference in this section to the highly variable potential for mitigation that may exist within sectors. While this is not an issue for global estimates, it may lead to communities and policymakers having either an unreasonably low or an unreasonably high expectation of the mitigation available. For smaller nations without a wide economic base it may lead to unduly high or unduly low expectations of emissions reductions. We suggest adding the sentence "There may be considerable unevenness in the mitigation potential available within some sectors (e.g. agriculture)." after page 5 line 24 (and before the reference to WGIII SPM). Other references are clearly available, e.g. for agriculture, to WGIII 8.4.3. (Government of New Zealand)
4-A-50	4	1	8	38	In the section "Mitigation options" I miss the more integrative view of city and regional planning. An intelligently planned infrastructure could reduce transport volume, energy consumption, energy transmittance, waste, it could close circles of production and recycling etc. I suggest to add a sentence that underlines the huge potential of synergies when viewing the detailed aspects as a linked system. (Government of Switzerland)
4-A-51	4	1	4		A footnote needs to be added to this table to clarify whether or not the numbers in the table are cumulative or independent. That is, taking the bottom-up studies, economic potential box as an example, are there 5-7 GtCO ₂ eq/yr available at negative cost PLUS ANOTHER 9-17 GtCO ₂ eq/yr available at 20\$ PLUS ANOTHER 13-26 GtCO ₂ eq/yr at 50\$ etc. or is each successive result inclusive of the one before? We suspect the numbers are inclusive but feel this should be made explicit to the reader. (Government of Canada)
4-A-52	4	3	4	6	Change the first part of the bolded header to read: “There is high agreement and much evidence that both bottom-up and top-down studies indicate that...” The WG3 SPM statement (page 9, paragraph 5) was designed to indicate that both the bottom-up global estimate and the top-down global estimates indicated similar magnitudes of economic potential. The current wording in the SYR SPM misleadingly suggests that there is “much evidence” from bottom-up studies. That is simply not the case, since there was only one bottom-up global estimate, and it was generated by WG3 Chapter 11 for AR4 (see note in WG3 Box SPM-2). (Government of United States of America)
4-A-53	4	6	4	6	"below current levels" doesn't match with 2000 data quoted in the footnote 16. Either change footnote to 2005/2006 data or change text to "below 2000 levels" (International Energy Agency)

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4-A-54	4	10	4	11	Replace “The economic potential is generally greater than the market potential” with “The economic potential is greater than the market potential due to barriers that limit uptake of technologies.” (Government of United States of America)
4-A-55	4	13	4	14	Table 4.2: The economic mitigation potential is apparently independent of the assumed SRES scenario? This is strange and needs explanation. Isn't part of the reduction potential already realized under the SRES B2-like projections? The columns with the percentages of SRES projections are rather trivial in that respect. It is good to give reference to 2030 projections, but the current representation is confusing. (Government of European Community)
4-A-56	4	21	4	21	To be consistent with the WG3 SPM, change “agree” to “are in line with”. (Government of United States of America)
4-A-57	5	1	5	1	The addition of the extra information beneath the chart makes for a very busy graphic. Suggest deleting all the "GtCO ₂ eq/yr" along the bottom under each individual graph, and simply expanding the note at the side that explains what the numbers are to say (add words in italics): "potential at <US\$100/tCO ₂ -eq in GtCO ₂ eq/yr." (or " GtCO ₂ eq/yr potential at <US\$100/tCO ₂ -eq") (Government of Canada)
4-A-58	5	1	5	19	Figure 4.1: This image could be clarified if there was text that conveyed that emission reductions are cumulative at the higher carbon costs, as opposed to additional. Suggest adding text at the end of line 5 that states: "Emission reductions are cumulative, as the cost of emission reductions increases." (Government of Canada)
4-A-59	5	17	5	17	Need to define "high-cost options" (International Energy Agency)
4-A-60	5	18	5	19	Amend to "... is in the order of..." (International Energy Agency)
4-A-61	5	22	5	22	We suggest changing 'one', in "No one technology ..." to 'single', "No single technology ..." as this reads better in English (Government of New Zealand)
4-A-62	5	24	5	24	We strongly urge that the sentence "There may be considerable unevenness in the mitigation potential available within some sectors (e.g. agriculture)." be added at the end of this line (and before the reference to WGIII SPM). (Government of New Zealand)
4-A-63	5	32	5	32	Strike “to 5-”. (Government of United States of America)
4-A-64	6	1	6	1	Under the Transport topic, “efficient operation of air, maritime, and surface transportation systems” should be included as environmentally effective adaptation examples.

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					(Government of United States of America)
4-A-65	6	1	6	1	Transport row refers to WGIII 5.4. Was this intended to refer to WGIII 5.5, Policies and Measures? (Government of United States of America)
4-A-66	6	1			Table 4.3: This table is well done and covers a lot of vital information. Maintaining this table as is in the final publication is strongly recommended. (Government of Japan)
4-A-67	6	1			Table 4.3: Energy supply: From my point of knowledge it is incorrect to add nuclear power as a key mitigation technology since the potential risk for the human race is bigger than the one from climate warming. It sounds very strange to me to substitute one danger for human life with another one. Questionable is also the propagated switch from coal to gas. However, missing are the concepts that show the improvement of energy supply by investing in local ("dezentral") energy collection, transformation and use. (Government of Switzerland)
4-A-68	6	1			Table 4.3, Row: Energy Supply. Change order of technologies: Nuclear Power should be mentioned after Renewables, according to its lower mitigation potential, cf. Figure 5.2. (Government of Germany)
4-A-69	6	1			Table 4.3 comment: Row 6 (Agriculture) Column 4 (Key constraints ...): The high degree of variability within this sector needs to be noted. We suggest adding: "Technologies and practices may not be applicable to some agricultural systems". There is some space available in this cell of the table; if this is insufficient we suggest the last two words ("to implementation") in the existing text be removed as they would be understood anyway. If that is still not enough we suggest re-wording the existing text as "May encourage synergy with sustainable development and reduce vulnerability to climate change". (Government of New Zealand)
4-A-70	6	1	6	1	Move "solar photovoltaics integrated into buildings" to the un-italicized part of the paragraph in Row 4 (buildings), Column 2 (key mitigation technologies). This is a commercial technology and technique currently being used in the marketplace. (Government of United States of America)
4-A-71	6	1	6	1	Move "concentrating solar, and solar photovoltaics" to the un-italicized part of the paragraph in Row 2 (energy supply), Column 2 (key mitigation technologies). These are commercial technologies and techniques currently being used in the marketplace. (Government of United States of America)
4-A-72	6	1			For clarity: Table 4.3: Energy Supply: write out CCS the first and not the second time it is introduced (Government of European Community)
4-A-73	6	1	6	1	Consider replacing "obligations" with "mandates" in Row 2 (energy supply), Column 3 (policies, measures). This terminology covers both obligation schemes as used in the United Kingdom as well as portfolio standard concept common in U.S.

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					(Government of United States of America)
4-A-74	6	1	6	1	Consider deletion of “environmentally” in Row 1 (title row), Column 3 (policies, measures). Descriptor not required as many of measures have other benefits in addition to environmental value. (Government of United States of America)
4-A-75	6	1	6	1	Consider adding “plug-in” before “hybrid” and deleting “with more powerful and reliable batteries” in Row 3 (transport), Column 3 (policies, measures). This differentiates between current and future commercial hybrid vehicle technologies. (Government of United States of America)
4-A-76	6	1	6	1	Add, “more efficient aircraft operations” after “more efficient aircraft”. While newer, more efficient aircraft will have the greatest impact reducing GHG, enhanced aircraft operational procedures also play a role. Aircraft are long-lived assets; it takes some time for new technologies to diffuse into the fleet. Hence operational procedures are a nearer term approach that may reduce fuel burn 6-12%. (Government of United States of America)
4-A-77	7	1	7	4	We are not aware of "... [substantial] near-term health co-benefits from reduced air pollution, as a result of actions to reduce GHG emissions ..." in New Zealand, although there is data available on the relevant variables. Air pollution is not generally an issue in most New Zealand locations. We have examined the underlying text (WGIII 11.8), which does not appear to include New Zealand sources, and wonder how comprehensive it is. We are reluctant to weaken a strong statement that we imagine may be of value to readers of the SYR in many other countries, but we would ask that the authors consider omitting the phrase 'in all analysed world regions'. The statement, that "... there is high agreement ... that near-term health benefits ... as a result of actions to reduce GHG emissions, can be substantial." is still a strong one. (Government of New Zealand)
4-A-78	7	1	7	48	There are too many bolded headings on this page. More efforts to synthesize results are needed. For comparison, the section on Adaptation Options only had two major bolded findings while this page alone has 5 and there are 6 in total for section 4.3 Mitigation Options. Our suggestions would be to 1) keep lines 11-23 but clarify text (see specific comment below), 2) move the text on lines 25-31 down, to under the header that begins on line 43. These sections belong together since they both address the issue of policies and practices that create incentives for mitigation. (Government of Canada)
4-A-79	7	11	7	13	This sentence does not convey a message. Suggest changing the text to say something a bit more tangible, e.g. "There is high agreement and medium evidence that the actions of Annex I countries to reduce emissions may affect the global economy and the balance of global emissions, although the scale of emissions leakage to countries without emissions targets remains uncertain." (Government of Canada)
4-A-80	7	11	7	13	Please clarify this sentence. We believe this needs to be by adding the word 'mitigation' before 'action', placing a comma after 'action', and changing 'action' to the plural, thus: "... there may be effects from Annex I countries mitigation actions, on the global economy ...". A better formulation in English is to re-order as: "... there may be effects from the mitigation actions of Annex I countries, on the global economy ...".

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					(Government of New Zealand)
4-A-81	7	11	7	23	Delete, as this is confusing and misleading without the necessary context and explanations, and does not seem to be relevant for the Synthesis report. It is better covered in SPM of WG III. (Government of Germany)
4-A-82	7	11	7	13	Although perhaps largely a context issue, this sentence as it stands risks misinterpretation because it refers exclusively to Annex I countries. There is ample evidence (e.g. WGIII 11.4.3.5, 13.3.3.3) that the actions of non-Annex I countries may also affect global emissions. To ensure that the IPCC is seen to maintain a balance, it is essential that either the sentence removed or it is followed by another sentence along the lines of: "There may also be effects on global emissions from non-Annex I countries actions." (Government of New Zealand)
4-A-83	7	12	7	12	Replace "countries" with "countries" (Government of United States of America)
4-A-84	7	13	7	13	Strike "remains uncertain" and insert in it place "is potentially high (as much as 20%)". (Government of United States of America)
4-A-85	7	17	7	17	Replace "spill over" with "spillover" (Government of United States of America)
4-A-86	7	25	7	31	These important paragraphs on behaviour an lifestyles should be reflected in the SYR SPM. (Government of Belgium)
4-A-87	7	33	7	37	Please accurately reflect the research here and utilise "global" when discussing carbon prices, e.g., "global carbon-price signal" on line 37 and "global carbon prices" on line 38. (Government of Canada)
4-A-88	7	37	7	41	The paragraph needs a footnote regarding the underlying assumption of an idealized global climate policy (WG3 Box SPM-3), which is important information for properly interpreting the statements. Also, the second sentence needs a footnote: "Relevant literature implies that policies and measures may induce technological change. Remarkable progress has been achieved in applying approaches based on induced technological change to stabilization studies; however, conceptual issues remain." (WG3 Box SPM-4) (Government of United States of America)
4-A-89	7	42	7	42	The following sentence from the WG3 SPM on this material would be useful to fully inform policymakers: "Barriers to the implementation of mitigation options are manifold and vary by country and sector. They can be related to financial, technological, institutional, informational, and behavioral aspects." (WG3 SPM, page 19, paragraph 23, bullet 4) (Government of United States of America)

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4-A-90	7	45	7	47	The sentence "Their applicability depends on national circumstances" should be reworded, as it does not reflect in a balanced way the discussion in WG III report (chapters 7, 12 and 13) not only on applicability, but also on on what influences effectiveness of different policies and instruments. Chapter 13 makes the important statement that applicability can be enhanced when instruments are adapted to local circumstances. This should be included, and also the old sentence from May-draft of topic 4 included: "Their effectiveness depends on how well they are designed, national circumstances, an understanding of their interactions, stringency, and monitoring to improve implementation." (see WG III chapters 7.9, 12.2, 13.2) (Government of Germany)
4-A-91	8	10	8	11	Last sentence in this bullet point not clear, suggest to delete. (Government of European Community)
4-A-92	8	15			Tradable permits will establish a carbon price' expresses a strong belief without revealing under what conditions this could happen. So far the EU Emission Trading Scheme has not established such price, but rather reflects the statement "Fluctuation in the price of carbon makes it difficult to estimate ..." (line 17-18 same page). Under what conditions a price is established? (E.g. table 4.3, p.6 of same topic is more scientific, and refers also to 'predictable allocation mechanisms' as an important factor). (Government of Belgium)
4-A-93	8	15	8	18	The bullet on Tradable permits has a biased focus in particular compared to the bullet above on taxes and charges: replace existing text on tradable permits with: "Tradable permits establish a carbon price and market mechanisms will ensure that investments for reduction are carried out at least cost. They can guarantee a preset outcome of reductions, in particular as Cap-and-Trade system with solid monitoring, reporting and compliance provisions in place, while the volume of allowed emissions determines their environmental effectiveness." (Government of European Community)
4-A-94	8	32	8	33	Remove: "and enable progress toward stabilisation". This is valid for all listed policies. RD&D as such is not a policy, so add instead: "Government support of RD&D can steer research and development towards technologies that may contribute to climate change mitigation in the longer term. However, support for R&D alone does not provide for deployment of technologies." (Government of European Community)
4-A-95	8	38	8	38	Replace: "level emissions" by "emission levels" (Government of European Community)
4-A-96	8	40			Sections 4.4 & 4.5. Adaptation examples in these sections are evocative of non-human adaptation issues, however all other discussions of adaptation are exclusively about human communities. This inconsistency should be corrected. (WWF International)
4-A-97	8	40	9	23	Section 4.4: The current draft lacks very important text on the necessity for combining mitigation and adaptation, which is lacking from the current draft. Please reconstitute the text from p. 8, ll. 18-31 of the previous draft, with the following changes: Replace "the risk of possible future impacts" by "future risks", and replace "optimal mix" by "optimal policy mix". Furthermore, please consolidate the "high confidence" statement with Topic 5, which makes a very similar statement with "very high confidence". (Government of European Community)

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4-A-98	8	40	9	10	Is there a reason why no example is provided on how adaptation responses could contribute to sustainable development? (Government of Australia)
4-A-99	8	43	8	45	This sentence was preceded by another, even more important sentence in the previous draft. Please reconstitute the following text from the previous draft (p. 8, ll. 44-45): "Climate change and other sustainable development policies are often but not always synergistic." (Government of European Community)
4-A-100	8	43	9	19	This section (Section 4.4) in the Synthesis Report is clearer than the comparable section in the SPM. Two points are being made independently: that there are potential synergies and conflicts between climate response options and sustainable development (message 1) and between mitigation and adaptation options (message 2). The merging of this material in the SPM was done poorly such that the header makes one message, and the underlying text, another. (Government of Canada)
4-A-101	8	43	8	45	In my understanding of sustainable development, there exist no conflicts between different dimensions of sustainable development. What is meant with this statement? (Government of Switzerland)
4-A-102	8	44	8	44	Please add "positive" in front of "synergies". Synergies can have positive, neutral and negative consequences depending on the goal. This is pointed out in climate change literature after 2005. However, since it is a correction in the usage of concepts rather than a new climate science finding, I think it is appropriate to correct the terminology here. Most synergies will involve trade-offs, thus it is confusing to use the pair "synergies and trade-offs". Alternatively the concept "convergences" can be used in pair with "trade-offs". (Government of Sweden)
4-A-103	8	46	8	46	The important information from WG II that "climate change could impede nations' abilities to achieve sustainable development" is missing and should be added as a bold statement (also in the SPM). (Government of Germany)
4-A-104	8	47	8	48	This sentence is overly narrow in referring only to renewable energy. The WGIII SPM refers to broader energy considerations too - for example, energy market reform and energy efficiency. Redraft with a broader focus. (Government of Australia)
4-A-105	8	47	8	47	For clarity, insert "modern" before "renewable energy". (Government of European Community)
4-A-106	9	2	9	3	For clarity, replace "may be negative for " by "may threaten". (Government of European Community)
4-A-107	9	10	9	10	"...non-climate policies can affect adaptive capacity and vulnerability" such as...? (WWF International)

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4-A-108	9	12	9	13	Exchange "Both synergies and trade-offs" with "Synergies" (Government of Sweden)
4-A-109	9	15	9	17	This sentence seems very broad and opaque. It would be best to single out a couple of significant practical examples which can be presented in specific terms. (Government of Australia)
4-A-110	9	15	9	19	This paragraph does not explain at all how there are synergies and tradeoffs between adaptation and mitigation options. If this is an important message, then suggest adding some text to further elucidate the header. We suggest adding the following (lines 5-7 page 65 Technical Summary WGII but note ref should be to 8.4.3 not 8.4.2 as in TechSumm): " Adaptation actions can have (often unintended) positive or negative mitigation effects, whilst mitigation actions can have (also often unintended) positive or negative adaptation effects [18.4.3 (not 18.4.2 we think) 18.5.2]. Also consider adding some text from paragraph below in Technical Summary about synergies. (Government of Canada)
4-A-111	9	15	9	15	Change text to "Examples of synergies include sustainable bioenergy production...". (Government of Canada)
4-A-112	9	15	9	19	Because examples were provided for synergies, examples should also be provided for trade-offs. Suggest to add "such as increasing air condition" at the end of the paragraph. (Government of European Community)
4-A-113	9	16	9	17	It is not clear what is meant by "but options are rather limited in other sectors". Should it be "but synergies are rather limited in other sectors"? (Government of Australia)
4-A-114	9	16	9	16	For logical consistency, the order of "forestry" and "energy use in bulidings" should be switched. (Government of European Community)
4-A-115	9	21	9	21	For clarity, add "sustainable " before "development policies". (Government of European Community)
4-A-116	9	22	9	23	Right hand column of Table could do with adding verbs eg "Avoids GHG emissions from deforestation" (International Energy Agency)
4-A-117	9	27	9	27	the word "notable" is ambigious. Change to "important achievements". (Government of Germany)
4-A-118	10	1	10	23	In point 4.5. it is necessary to highlight that not always a lower cost in global terms implies a lower cost for each actor. All depends on what are the implementation costs involved and if the total social and other eventual external costs that may be produced are included or not (increasing prices of basic goods and services, indirect loss of jobs, etc.). Global cost-efficiency (the way in which usually is measured the efficiency in these processes) not always implies that the best or the most cost-effective option from the host country point of view is being implemented. Many times this situation

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					hinders the fact that the disparity in income distribution and property rights of the resources at international level (and within the own countries) makes that the resources belonging to the poor are cheaper than those belonging to the reach and hence is cheaper to affect and/or use (or over use) these resources. (Government of Argentina)
4-A-119	10	2	10	5	Why are TAR estimates presented but not the updated AR4 estimates? Either delete the part of the sentence starting with "that showed..." or add the AR4 estimates. (Government of European Community)
4-A-120	10	4	10	5	Insert the word "global" to read "showed 0.2-2% lower GLOBAL GDP", "GLOBAL emissions trading" and "0.1-1.1% lower GLOBAL GDP". (Government of Canada)
4-A-121	10	16	10	17	Sentence is mixing meanings, as market mechanisms typically reduce costs but do not themselves improve environmental effectiveness. Sentence should be split, e.g. "Expansion of market mechanisms may reduce global costs for achieving a given level of mitigation. Greater cooperative efforts may improve environmental effectiveness." (Government of Canada)
4-A-122	10	16	10	20	It is true that international cooperation mechanisms will reduce overall mitigation costs, but nothing assures that will be effective to get an effective GHG emissions reduction, unless exists an effective compromise, mostly from Annex I countries, to change their production and consumption patterns. (Government of Argentina)
4-A-123	17	3			Start with "In order to give a few examples, renewable energy generally has a positive effect on energy security, employment, and on air quality. Given costs relative to other supply options, renewable electricity, which accounted for 18% of the electricity supply in 2005, can have a 30-35% share of the total electricity supply in 2030 at carbon prices up to 50 US\$/t Co2 equiv. (Text from SPM WG 3, page 17) In addition, CCS in underground geological formations is a new technology with the potential to make an important contribution to mitigation by 2030 (SPM WG 3, page 18). Also by 2030, about 30% of the projected GHG emissions in the building sector can be avoided with net economic benefit (SPM WG 3, page 18). In the sector of forest policies, about 65% of the total mitigation potential (up to 100 US\$/tCO2equiv) is located in the tropics and about 50% of the total could be achieved by reducing emissions from deforestation. (WWF International)
4-A-124	17	19	17	20	Sentence is mixing meanings, as market mechanisms typically reduce costs but do not themselves improve environmental effectiveness. Sentence should be split, e.g. "Expansion of market mechanisms may reduce global costs for achieving a given level of mitigation. Greater cooperative efforts may improve environmental effectiveness." (Government of Canada)

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Topic - Batch - Comment	Page	Line	To Page	To Line	Comment
4-B-1	3	1			Tab. 4.1 is to small, landscape format would help (Government of Switzerland)
4-B-2	6	1			Tab. 4.3 is to small, landscape format would help (Government of Switzerland)
4-B-3	7	25	7	26	This conclusion is slightly trivial. I had the feeling that the "Summaries for Policymakers" from Working Group I and from Working Group II are clearer in their conclusions. (Government of Switzerland)