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**ACCEPTANCE OF THE ACTIONS TAKEN AT THE FOURTEENTH SESSION OF
WORKING GROUP III**

**Working Group III contribution to the IPCC Sixth Assessment Report (AR6),
Climate Change 2022: Mitigation of Climate Change**

**Changes to the Underlying Scientific-Technical Assessment to ensure consistency
with the approved Summary for Policymakers**

(Submitted by the Co-Chairs of the IPCC Working Group III)

**IPCC Working Group III Contribution to the Sixth Assessment Report –
SPM tricklebacks to the underlying report.**

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B3.5	Chapter 1	15	Footnote 3	Replace “Energy and Industry-CO2” by “Fossil-Fuel and Industry (CO2-FFI)”; Replace “2010” by “2008”; Delete “and Figure 2.11 for panel of countries that have sustained territorial emission reductions longer than 10 years”. After “Lamb et al. (2021)” add “An earlier study found 18 developed countries that had reduced CO2-FFI emissions over 2005-2015 (Le Quéré et al. 2019).” After “Xia et al (2021)” add “identified 23 industrialised countries (UNFCCC Annex I) with CO2-FFI emissions in 2017 lower than in 2000 (Figure 3), of which 22 had increased GDP over the period.” Replace “EEI-CO2” by “CO2-FFI”.
B 3	Chapter 1	13-15	Figure 1.1 and 1.2	Update Figure 1.1 and 1.2 based on revised Figure SPM2 & associated data
B1	Chapter 2	4	15	Replace: 250%; With: 254%
B2	Chapter 2	4	25	Add "high confidence" at end of statement
B1	Chapter 2	4	33	Change to "About 62%" at the beginning of the sentence
B2	Chapter 2	4	36	Add "medium confidence" to the end of the sentence starting "For comparison..."
B3	Chapter 2	5	1	Change "about 24" to "at least 18"
B3, Figure SPM.2	Chapter 2	5	29-39	Text and numbers updated to reflect the region change approved in plenary, the shift to R10 geographic regions in SPM.2 and the underlying chapter figures 2.9, 2.10, and the inclusion of SIDS in the SPM B3 text
B2	Chapter 2	6	2	Add "(medium confidence)" to the end of the sentence starting "Emission growth in AFOLU is more uncertain..."
B3	Chapter 2	6	20	Change confidence statement of the headline to "medium confidence"
B1	Chapter 2	20	12	Replace: 250%; With: 254%
B1	Chapter 2	23	6	Add "(medium confidence)" to the end of the sentence starting "Emissions in the last decade are about the same size..."

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B1	Chapter 2	23	15	Add the following paragraph, required to maintain line of sight with section B1 approved in the plenary: "Even when taking uncertainties into account, historical emissions between 1850 and 2019 constitute a large share of total carbon budgets from 2020 onwards for limiting warming to 1.5°C with a 50% probability as well as for limiting warming to 2°C with a 67% probability. Based on central estimates only, historical cumulative net CO ₂ emissions between 1850-2019 amount to about four fifths of the total carbon budget for a 50% probability of limiting global warming to 1.5°C (central estimate about 2900 GtCO ₂), and to about two thirds of the total carbon budget for a 67% probability to limit global warming to 2°C (central estimate about 3550 GtCO ₂). The carbon budget is the maximum amount of cumulative net global anthropogenic CO ₂ emissions that would result in limiting global warming to a given level with a given likelihood, taking into account the effect of other anthropogenic climate forcers. This is referred to as the total carbon budget when expressed starting from the pre-industrial period, and as the remaining carbon budget when expressed from a recent specified date. The total carbon budgets reported here are the sum of historical emissions from 1850 to 2019 and the remaining carbon budgets from 2020 onwards, which extend until global net zero CO ₂ emissions are reached. Uncertainties for total carbon budgets have not been assessed and could affect the specific calculated fractions (IPCC 2021[Working Group 1 SPM], Canadell et al., 2021[Working Group 1 Ch5])."
B1	Chapter 2	23	Figure 2.7	Change panel b 1.5oC budget to 500 +/- 220 (the >50% budget from WG1)
B3	Chapter 2	26	27	Change "medium confidence" to "high confidence"
B3, Figure SPM.2	Chapter 2	28	Figure 2.9	Figure updated to R10 geographic regions in panel a to reflect changes approved to SPM.2 in the plenary
B3, Figure SPM.2	Chapter 2	29	Figure 2.10	Figure updated to R10 geographic regions in panel a to reflect changes approved to SPM.2 in the plenary; small island developing states (SIDS) added to reflect the inclusion of these in SPM section B.3
B3, Figure SPM.2	Chapter 2	29	Figure 2.11	Figure updated to R10 geographic regions in panel to reflect changes approved to SPM.2 in the plenary
B3, Figure SPM.2	Chapter 2	43	Figure 2.16	Minor adjustment to panel b and c to reflect the region change approved in plenary

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B3, Figure SPM.2	Chapter 2	45	Figure 2.17	Minor adjustment to panel b and c to reflect the region change approved in plenary
B3, Figure SPM.2	Chapter 2	46	Figure 2.18	Minor adjustment to panel b and c to reflect the region change approved in plenary
B3, Figure SPM.2	Chapter 2	48	Figure 2.19	Minor adjustment to panel b and c to reflect the region change approved in plenary
B3, Figure SPM.2	Chapter 2	50	Figure 2.20	Minor adjustment to panel b and c to reflect the region change approved in plenary
B3, Figure SPM.2	Chapter 2	52	Figure 2.21	Minor adjustment to panel b and c to reflect the region change approved in plenary
B7	Chapter 2	54	12	Replace: (robust evidence, medium agreement) With: (medium evidence, high agreement)
B3	Chapter 2	54	15	Add "minimum" before decent living
B1.3	Chapter 2	55	13-17	Replace XXX with YYYY
B4	Chapter 2	58	33	Replace: Existing Figure 2.22; with Figure 2.22 using Figure SPM.3.
B4	Chapter 2	58	34	Replace: Figure 2.22: Learning curves for renewable energy technologies 2000–2019; With: Figure 2.22: Unit cost reductions and adoption in dynamic energy technologies 2000–2020.
B3, Figure SPM.2	Chapter 2	25-26		Text and numbers updated to reflect the region change approved in plenary, the shift to R10 geographic regions in SPM.2 and the underlying chapter figures 2.9, 2.10, and the inclusion of SIDS in the SPM B3 text. E.g instances of "developed countries" changed to "developed countries (regions: North America; Europe; Australia, Japan, New Zealand)" and likewise for "Asia and developing Pacific"
B3, Figure SPM.2	Chapter 2			Instances of "regional classification" to be changed to "regional groupings" for consistency with SPM.2
	Chapter 2			Please align references to scenario categories with the approved language from the plenary, e.g. C1, C3
SPM Table 1	Chapter 3	5	31	Ignore corrigenda, maintain original text / numbers
SPM Table 1	Chapter 3	5	32	Ignore corrigenda, maintain original text / numbers

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
SPM C1.2	Chapter 3	5	38	Due to recalculation of ranges in C1.2, update numbers from "20 (1-46%) in 2030 and almost 50% (26-64%)" change to "19 (4-46%) in 2030 and 46% (29-64%)"
SPM C1.2	Chapter 3	5	40	Due to recalculation of ranges in C1.2, update numbers from "33% (19-57%), but only moderately so by 2050, 50% (33-69%)" change to "34% (21-57%), but only moderately so by 2050, 51% (35-70%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C1: Below 1.5oC with no or limited overshoot" by "C1: Limit warming to 1.5°C (>50%) with no or limited overshoot"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C2: Below 1.5oC with high overshoot" by "C2: Return warming to 1.5°C (>50%) after a high overshoot"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C3: Likely below 2oC" by "C3: Limit warming to 2°C (>67%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C4: Below 2oC" by "C4: Limit warming to 2°C (>50%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C5: Below 2.5oC" by "C5: Limit warming to 2.5°C (>50%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C6: Below 3oC" by "C6: Limit warming to 3°C (>50%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C7: Below 4oC" by "C7: Limit warming to 4°C (>50%)"
Box SPM.1	Chapter 3	17	17	Table 3.1 Description column. Replace "C8: Above 4oC" by "C8: Exceed warming of 4°C (>=50%)"
Box SPM.1	Chapter 3	21	1	Update figure 3.5 with new category names and IMP names
Box SPM.1	Chapter 3	21	5	Update figure 3.5 caption with new IMP names
Figure SPM.5	Chapter 3	22	1	Update figure 3.6 with panels a-b from SPM5
Figure SPM.5	Chapter 3	22	2	Replace figure 3.6 with: harmonised (infilled) data instead of native, p05-p95 range instead of p25-p75, Current Policies range with Implemented policies and 2030 pledges. Only for CO2 and GHG.
Box SPM.1	Chapter 3	23	1	Add "IMP-" in front of "GS", "Neg", "Ren", "LD" and "SP" in figure 3.7
Box SPM.1	Chapter 3	23	5	Add "IMP-" in front of "GS", "Neg", "Ren", "LD" and "SP" in figure 3.8

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
Box SPM.1	Chapter 3	29	1	Update Figure 3.11 to match Figure Box SPM.1
Figure SPM.5	Chapter 3	30	6	Change panel c and d from figure 3.12 to panels c and d from Figure SPM.5
Figure SPM.5	Chapter 3	30	6	Replace lower panel as per final version of panel e) in Fig SPM 5
C1.2	Chapter 3	37	23	Due to corrections in Net-zero BOX and Table SPM1, change "10-20" to 10-40"
C2	Chapter 3	37	24	Due to recalculated numbers in SPM C2.3, change "4-11" into "5-11"
C1.2	Chapter 3	37	26	Due to recalculated numbers in SPM C1.2, change "20" into "19"
C1.2	Chapter 3	37	26	Due to recalculated numbers in SPM C1.2, change "33% (19-57) in 2030 and a similar 50% (33-69%)" to "34% (21-57) in 2030 and a similar 51 (35-70%)
SPM C1.2	Chapter 3	37	26	Due to recalculated numbers in SPM C1.2, change "20 (1-46%)" into "19 (3-46%"
SPM C1.2	Chapter 3	37	26	Due to recalculated numbers in SPM C1.2, change "almost 50% (26-64%)" into "46% (29-64%)"
Table SPM.1	Chapter 3	44	4	Table 3.2 (updated) Replace with Table SPM1
Table SPM.1	Chapter 3	44	4	Table 3.2 footnotes Replace with Table SPM1 footnotes
Box SPM.1	Chapter 3	52	1	Replace category names (C1, C2, C3) by updated category names in Figure 3.18
Box SPM.1	Chapter 3	52	1	Add "IMP-" in front of "GS", "Neg", "Ren", "LD" and "SP" in Figure 3.18
Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to redefinition of Categories in BOX SPM 1: Change whole line of FN1 to: "Category definitions are defined by their likelihood of exceeding global warming levels (at peak and in 2100)."
Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to definition in BOX SPM 1: Change sentence to "C1:limit warming to 1.5°C in 2100 with a likelihood of greater than 50%, and reach or exceed peak warming of 1.5°C during the 21st century with a likelihood of 67% or less."
Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to definition in BOX SPM 1: Change sentence to "C2:limit warming to 1.5°C in 2100 with a likelihood of greater than 50%, and exceed warming of 1.5°C during the 21st century with a likelihood of greater than 67%."
Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to definition in BOX SPM 1: Change sentence to "C3:limit warming to 2.0°C throughout the 21st century with a likelihood of greater than 67%."

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Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to definition in BOX SPM 1: Change sentence to "C4-C7 comprise modelled scenarios that limit warming to (2°C, 2.5°C, 3°C, 4°C), respectively, throughout the 21st century with a likelihood of greater than 50%."
Box SPM.1	Chapter 3	53	2	Table 3.4 - Due to definition in BOX SPM 1: Change sentence to "C8: exceed warming of 4°C during the 21st century with a likelihood of 50% or greater."
Box SPM.1	Chapter 3	54	1	Fig 3.19 - replace Category names
Box SPM.1	Chapter 3	55	1	Fig 3.21 - replace left panel as per updated version of Panel f in Fig SPM 5
Figure SPM.5	Chapter 3	55	19	Update Figure 3.21 to match Figure SPM.5 - Panel f
Box SPM.1	Chapter 3	58	1	Fig 3.22 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	59	1	Fig 3.23 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	60	1	Fig 3.24 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	61	4	Fig 3.25 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	63	2	Fig 3.26 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	65	1	Fig 3.27 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	66	1	Fig 3.28 -replace Category names as agreed in Box SPM 1
Box SPM.1	Chapter 3	67	27	Table 3.5 - replace Category names as agreed in Box SPM 1
B.6 HS	Chapter 3	68	FN 16	Replace definition of "current NDCs" with definition of "NDCs announced prior to COP26" as adopted in SPM
B.6 HS	Chapter 3	69	FN 18	Reflect definition of immediate action agreed in SPM
C.1 HS	Chapter 3	72	31	Add sentence on temperature range of projecting NDCs to 2100
C.1.3	Chapter 3	72	31	Add sentence on temperature range of extending implemented policies to 2100
B.6.1	Chapter 3	72	33-35	Correct emissions gap numbers to reflect gap numbers in SPM
C.2	Chapter 3	75	23	Add new column to Table 3.6 with C3 category as a joint class
C.2	Chapter 3	75	23	Add six rows to Table 3.6 showing the reduction of the use of coal, oil and gas without CCS in 2030 and 2050
Box SPM.1	Chapter 3	75	23	Table 3.6 - change "Likely 2C" to "Limit to 2c (>67%)"
Table SPM.1	Chapter 3	117	27	Add footnote for corresponding share of scenarios not reaching net zero GHG in C1 as provided in Table SPM.1

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B6.4	Chapter 3	117	29	Update net negative CO2 range and add footnote for corresponding range based on harmonized emissions
Box SPM.1	Chapter 3	all	all	For all references in the text, update wording relating to warming categories to reflect new definitions in Box SPM 1, e.g. change "in pathways that limit warming to 1.5°C with no or limited overshoot" into "in pathways that limit warming to 1.5°C (>50%) with no or limited overshoot" change "in pathways likely to limit warming to 2°C" into "in pathways that limit warming to 2°C (>67%)"
Box SPM.1	Chapter 3	all	all	change all statements pathways "likely below 2°C" into "limit warming to 2°C (>67%)"
B.6 HS	Chapter 3	all	all	Replace term "current NDCs" with "NDCs announced prior to COP26" as adopted in SPM throughout Chapter
Box SPM.1	Chapter 3	Several	Several	Add "IMP-" in front of "GS", "Neg", "Ren", "LD" and "SP" across the text
B.6	Chapter 3	Several	Several	Rename mentions in assessment of NDC ranges as "NDCS announced prior to COP-26"
B.6	Chapter 3	Several	Several	Rename mentions in assessment of "Current Policies" ranges as "Trend from implemented policies until the end of 2020"
Table SPM.X	Chapter 4 ES	3	19-22	<i>Update as:</i> ... 1.5°C (>50%) with no or limited overshoot of 19-26 GtCO ₂ -eq, and 10-16 GtCO ₂ -eq for scenarios that likely limit warming to 2°C (>67%) with immediate action. When conditional elements of NDCs are included, these gaps narrow to 16-23 GtCO ₂ -eq and 6-14 GtCO ₂ -eq, respectively."
Table SPM.X	Chapter 4	20	4-11	<i>Update as:</i> New and updated unconditional NDCs reduce the median gap with emissions pathways that limit warming to 2°C (>67%) in 2030 by slightly more than 20%, from a median gap of 17 GtCO ₂ -eq (9-23) to 13 (10-16). New and updated conditional NDCs reduce the median gap with emissions pathways that limit warming to 2°C (>67%) in 2030 by about one third, from 14 GtCO ₂ -eq (10-20) to 9 (6-14). New and updated unconditional NDCs reduce the median gap with emissions pathways that limit warming to 1.5°C (>50%) with no or limited overshoot in 2030 by about 15%, from a median gap of 27 GtCO ₂ -eq (19-32) 8 to 22 GtCO ₂ -eq (19-26). New and updated conditional NDCs reduce the median gap with emissions pathways that limit warming to 1.5°C (>50%) with no or limited overshoot emissions pathways in 2030 by about 20%, from a median gap of 24 GtCO ₂ -eq (20-29) to 19 GtCO ₂ -10 eq (16-23).
Figure SPM4	Chapter 4	23	CCB4, Figure 1	Update the chapter 4 x-chapter box 4 figure 1 according to the SPM approved figure

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B6	Chapter 4	18 table 4.2		Add column with "Cut-off date" after first column with following entries: Climate Action Tracker 8/2020, PBL 11/2020, JRC GECO 12/2019, ENGAGE 7/2019 in order to underpin the information in Footnote 20 in floor draft.
Figure SPM4 caption	Chapter 4	23 CCB4, Figure 1 caption	2-14	Update the chapter 4 x-chapter box 4 figure 1 caption according to the SPM approved figure
Table SPM.X	Chapter 4	24 CCB4	1-5	<i>Update as: ... giving rise to a 2030 median emissions gap of 19-26 GtCO₂eq (16-23 GtCO₂eq) for limiting end-of-century warming to 1.5°C (50% chance) with no or limited overshoot and 10-16 GtCO₂eq (6-14 GtCO₂eq) for limiting warming to 2°C (67% chance)."</i>
C10, Figure SPM.6	Chapter 5	3	16-17	Replace "IEA WEO, 2020 STEPS baseline" with "2050 emissions projection of two scenarios consistent with policies announced by national governments until 2020"
B3	Chapter 5	4	5	add "minimum" before "material conditions" - e.g. "a benchmark of minimum material conditions for human well-being"
B3	Chapter 5	10	14	add "minimum" before "material conditions" - e.g. "specifies the underlying minimum material and energy requirements"
C10, Figure SPM.6	Chapter 5	40	27-30	Replace the text "Technology adoption.....and Chapter 10" with the following text " Technology adoption, particularly banning combustion and diesel engines and 100% EV targets (and other zero-carbon fuels, especially in freight) and efficient lightweight cars, can contribute to between 30 and 70% of GHG emissions reduction in the land transport in 2050, with 50% as our central estimate (see Supplementary Material II Chapter 5, Table SM2 and Chapter 10.4 and 10.7, consistent with scenario modelling (Figure 10.27) and based on rapid reduction in the GHG emission footprint of vehicle production. These numbers are consistent with the end of fossil fuel-based new cars in 2035 in major economies and of 100% vehicles being zero-emission vehicles in 2050. Other economies that display vehicles obtained on second hand markets may phase out fossil fuel cars only after 2050, hence limiting the overall mitigation potential of electric vehicles to well below 100% in 2050. Higher energy and CO ₂ -footprint in BEV production compared to ICE production are to be met with more rapid decarbonization of the industry sector and by the reduced need of overall vehicle stock, due to socio-cultural and infrastructure measures. Ehrenberger et al. 2021 shows that the development of technologies, fleets, and their use are decisive factors in reducing

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				<p>the use of fossil energies, resulting in 26% to 65% CO2 emissions reduction potential until 2040 for the case of Germany. Electric vehicles can be used to provide new shared services. In this case, reductions of CO2 emissions of close to 20% can be obtained in a scenario where 20% of car trips and all bus feeder trips are replaced, but considerable higher reductions are possible when shared pooled mobility replaces private vehicle trips in urban areas. (ITF, 2017b, 2017d). A study shows that ICEs vehicles reduce CO2 emissions to 60% or 80% of current emissions levels by 2050 (Hill et al., 2019). Similarly, the power grid decarbonization is assumed to improve to either 50% or 80% over current rates, with 80% being the expected decarbonization and 50% a more conservative estimate. Each possibility for EV adoption rate, ICE efficiency improvement, and power decarbonization is combined (Hill et al., 2019). Beyond consuming less energy, EVs enable greater use of low-carbon and renewable energy sources than are available from conventional petroleum-based fuels. These technical advantages lead to the potential for greatly reducing petroleum use, air pollution, and carbon emissions. International collaboration could better leverage existing efforts to promote zero-emission vehicles. The establishment of a zero-emission vehicle deployment target and an electric mobility target for 2035 would help in establishing a common long-term global electric-drive vision (Lutsey, 2015)."</p>
C10, Figure SPM.6	Chapter 5	42-43	Figure 5.7	<p>Update caption of figure 5.7 as "Demand-side mitigation response options related to demand for services have been categorised into three broad domains: 'socio-cultural factors', associated with individual choices, behaviour and lifestyle change, social norms and, culture, 'infrastructure use', related to the design and use of supporting hard and soft infrastructure that enables changes in individual choices and behaviour; and 'end-use technology adoption', which refers to the uptake of technologies by end- users. Demand side mitigation is a central element of the IMP-LD and IMP-SP scenarios (see 3.3). Food (nutrition) demand-side potentials in 2050 assessment is based on bottom-up studies and estimated following the 2050 baseline for the food sector presented in peer-reviewed literature (more information in Supplementary Material II Chapter 5 and 7.4.5). Industry (manufactured products), land transport, aviation, and shipping (mobility), and buildings (shelter) assessment of potentials for total emissions in 2050 are estimated based on approximately 500 bottom up studies representing all global regions (detailed list is in Table SM5.2). Baseline is provided by the sectoral mean GHG</p>

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				<p>emissions in 2050 of the two scenarios consistent with policies announced by national governments until 2020.</p> <p>The heights of the coloured columns represent the potentials represented by the median value. These are, based on a range of values available in the case studies from literature shown in Chapter 5 Supplementary Material II. The range is shown by the dots connected by dotted lines representing the highest and the lowest potentials reported in the literature. The demand side potential of socio-cultural factor in food has two parts. The median value of direct emissions (mostly non-CO₂) reduction through socio-cultural factors is 1.9 GtCO₂eq without considering land-use change through reforestation of freed up land. If changes in land use patterns enabled by this change in food demand are considered, the indicative potential could reach 7 GtCO₂-eq. The electricity panel presents how sectoral demand-side mitigation options (industry, transport, and buildings) can change demand on the electricity distribution system. Electricity accounts for an increasing proportion of final energy demand in 2050 (additional electricity bar) in line with multiple bottom-up studies (detailed list is in Table SM5.3), and Chapter 6 (6.6). These studies are used to compute the impact of end-use electrification which increases overall electricity demand. Some of the projected increase in electricity demand can be avoided through demand-side mitigation options in the domains of socio-cultural factors and infrastructure use strategies in end-use electricity use in buildings, industry, and land transport found in literature based on bottom-up assessments."</p>
C10	Chapter 5	Figure SPM 6	Figure SPM 6	Add a note to clarify that potentials from socio-cultural factors and infrastructure use reflect mitigation potential from sufficiency
C10, Figure SPM.6	Chapter 5	SM 5II-2		Replace "reuse and recycling" with "Networks established for recycling, repurposing, remanufacturing and reuse of metals, plastics and glass, labelling low emissions materials and products" in Table SM5.2: row Industry/Infrastructure use; column: Specific mitigation strategies
C10, Figure SPM.6	Chapter 5 SMII	SM 5II-2		Replace "Avoid short life span products in favour of products with longer lifespan" with "Shift in demand towards sustainable consumption such as, intensive use of longer lived repairable products; benchmarking and labelling low emissions materials and products" in Table SM5.2: row Industry/ Socio-cultural factors; column: Specific mitigation strategies
C10, Figure SPM.6	Chapter 5	SM5 II-2		Add "Table 11.6" to the references of Table SM5.2: Industry, Infrastructure use

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C10, Figure SPM.6	Chapter 5	SM5 II-2		Replace "a) Access to materials efficient services; b) Access to energy efficient and CO ₂ - neutral materials" with "Green procurement to access material efficient products and services; access to energy efficient and CO ₂ neutral materials" in Table SM5.2: row Industry/Technology adoption; column: Specific mitigation strategies
C10, Figure SPM.6	Chapter 5	SM5 II-2		Table SM5.2 row: Industry/ Manufactured products ; column: Emissions in 2050 update as " 15.4 Gt CO ₂ (Mean of IEA WEO2020, STEPS (14.4 Gt CO ₂) and IP-ModAct projection (16.3 Gt CO ₂)"
C10, Figure SPM.6	Chapter 5	SM5 II-3		Table SM5.2 row: Shipping/Mobility ; column: Emissions in 2050 update as "1.4 Gt CO ₂ (Mean of IEA WEO2020, STEPS (1.2 Gt CO ₂) and IP-ModAct projection (1.6 Gt CO ₂)"
C10, Figure SPM.6	Chapter 5	SM5 II-3		Table SM5.2 row: Aviation/Mobility ; column: Emissions in 2050 update as "1.8 Gt CO ₂ (Mean of IEA WEO2020, STEPS (1.8 Gt CO ₂) and IP-ModAct projection (1.9 Gt CO ₂)"
C10, Figure SPM.6	Chapter 5	SM5 II-4		Table SM5.2 row: Land Transport/Mobility ; column: Emissions in 2050 update as "6.9 Gt CO ₂ (Mean of IEA WEO2020, STEPS (7.0 Gt CO ₂) and IP-ModAct projection (6.7 Gt CO ₂)"
C10, Figure SPM.6	Chapter 5	SM5 II-5		Add "(Chapter 9 presents it under non-technological and behavioural mitigation options and strategies section (9.5) and potentials (9.6))" to the end of the sentence row: Buildings/Socio-cultural factors; column: Explanation
C10, Figure SPM.6	Chapter 5	SM5 II-5		Add "(Chapter 9 presents it under the sufficiency pillar and discusses the global and regional emission reduction potentials in 2050, see Figure 9.16)" to the end of the sentence "b) decent living standard, floor space per capita, sharing economy" row: Buildings/Infrastructure use; column: Explanation
C10, Figure SPM.6	Chapter 5	SM5 II-5		Table SM5.2 row: Buildings/Shelter ; column: Emissions in 2050 update as "10.3 Gt CO ₂ (Mean of IEA WEO2020, STEPS (8.7 Gt CO ₂) and IP-ModAct projection (11.8 Gt CO ₂)"
C10, Figure SPM.6	Chapter 5	SM5 II-6		Replace "Chapter 9 (9.3, 9.4, 9.5, 9.6, 9.9)" with "Chapter 9 (9.5, 9.6.2, Figure 9.16)" in Table SM5.2 row: Buildings/Infrastructure use; column: References
C10, Figure SPM.6	Chapter 5	SM5 II-6		Add "(for more information, see chapter 9 the global and regional potential emissions reduction from demand-side energy efficiency (9.6.2, Figure 9.16))" to the end of bullet point "a" in Table SM5.2 row: Buildings/Technology adoption; column: Explanation
C10, Figure SPM.6	Chapter 5	SM5 II-6		Add " (also see chapter 9 the global and regional potential emissions reduction from on-site renewable energy technologies (9.6.2, Figure 9.16))" to the end of bullet point "b" in Table SM5.2 row: Buildings/Technology adoption; column: Explanation

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C10, Figure SPM.6	Chapter 5	SM5 II-6		Replace "Chapter 9 (9.4, 9.6, 9.9)" with "Chapter 9 (9.4, 9.6.2, Figure 9.16)" in Table SM5.2 row: Buildings/Technology adoption; column: References
C10, Figure SPM.6	Chapter 5			Replace all "Technology adoption" with "End-use technology adoption" in Table SM5.2, under Demand side mitigation achieved through column
	Chapter 7	4	1	replace FOOTNOTE 1 by "Global databases make different choices about which emissions and removals occurring on land are considered anthropogenic. Currently, net CO ₂ land fluxes from land reported by global book-keeping models used here differ from those from the aggregate global net emissions based on national GHG inventories. This difference, which has been considered in the literature, mainly reflects differences in how anthropogenic forest sinks and areas of managed land are defined. Other reasons for this difference, which are more difficult to quantify, can arise from the limited representation of land management in global models and varying levels of accuracy and completeness of estimated LULUCF fluxes in national GHG inventories. Neither method is inherently preferable. This chapter reports estimates from different databases and approaches, but uses CO ₂ LULUCF from book-keeping models to report overall emissions to ensure consistency and comparability across chapters."
B2.2	Chapter 7	4	29-31	replace by: AFOLU CO ₂ emissions fluxes are mainly driven by land use change (CO ₂ LULUCF), and account for about half of total net AFOLU emissions. The rate of deforestation has generally declined, while global tree cover and global forest growing stock levels are likely increasing (medium confidence)
B2.2	Chapter 7	12	19	Table 7.1, row CO ₂ , column A: replace: "book-keeping models only" with "book-keeping models, managed soils and pasture"
B2.2	Chapter 7	12	19	Table 7.1, row Total, column A: replace: "book-keeping models only" with "book-keeping models, managed soils and pasture"
B2.2	Chapter 7	13	1	Replace "This number is used for consistency with WGI and Chapter 2, this report." with "Book-keeping based CO ₂ -LULUCF emissions (5.7±4.0) are consistent with WGI and Chapter 2, this report. The value of 5.9(±4.1) includes CO ₂ emissions from urea application to managed soils and pasture."
B.2.3	Chapter 8	4	12	add "(i.e., urban form)" after "how cities are laid out" (now reads: "how cities are laid out (i.e., urban form)")

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B.2.3	Chapter 8	4	18-23	<p>REVISED STATEMENT SHOULD READ: "The urban share of combined global (CO₂ and CH₄) emissions is substantial and continues to increase (high confidence). In 2015, urban emissions were estimated to be 25 GtCO₂-eq (about 62% of the global share) and in 2020, 29 GtCO₂-eq (67-72% of the global share).[FOOTNOTE] About 100 of the highest emitting urban areas account for approximately 18% of the global carbon footprint (high confidence). {8.1, 8.3}"</p> <p>FOOTNOTE: "These estimates are based on consumption-based accounting, including both direct emissions from within urban areas, and indirect emissions from outside urban areas related to the production of electricity, goods, and services consumed in cities. Estimates include all CO₂ and CH₄ emission categories except for aviation and marine bunker fuels, land-use change, forestry, and agriculture. {8.1, Annex I: Glossary}"</p>
C.6 HS	Chapter 8	5	35	hyphen between "net" and "zero" (reads: "net-zero"); please also make consistent throughout chapter (any time "net zero" is modifying a noun - as in "net-zero emissions" for example - it should be hyphenated)
C.6 HS	Chapter 8	5	35	delete "or near net zero"
C.6 HS	Chapter 8	5	36	replace "Urban deep decarbonisation entails implementing three broad strategies concurrently" with "Three broad mitigation strategies have been found to be effective in reducing emissions when implemented concurrently"
C.6 HS	Chapter 8	5	37	replace "reducing urban energy consumption" with "reducing or changing urban energy and material use towards more sustainable production and consumption"
C.6 HS	Chapter 8	5	39	hyphen between "net" and "zero" (reads: "net-zero"); please also make consistent throughout chapter (any time "net zero" is modifying a noun - as in "net-zero emissions" for example - it should be hyphenated)
C.6 HS	Chapter 8	5	40	replace "stocks" with "storage in the urban environment"
C.6 HS, C.6.2	Chapter 8	5	40	Replace "(medium evidence, high agreement)" with "(high evidence, high agreement)"
C.6 HS	Chapter 8	5	41-42	replace "a city cannot achieve net zero GHG emissions by only focusing on reducing emissions within its administrative boundaries" with "cities can achieve net-zero emissions only if emissions are reduced within and outside of their administrative boundaries through supply chains."
C.6.2	Chapter 8	6	16	Insert footnote after "roofs": "These examples are considered to be a subset of nature-based solutions or ecosystem-based approaches."

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C.6.2	Chapter 8	6	25	replace "potentials" with "potential" (should not be plural)
C.6.2	Chapter 8	6	25-38	REVISED STATEMENT SHOULD READ: The potential and sequencing of mitigation strategies to reduce GHG emissions will vary depending on a city's land use, spatial form, development level, and state of urbanization (i.e., whether it is an established city with existing infrastructure, a rapidly growing city with new infrastructure, or an emerging city with infrastructure build-up) (high confidence). New and emerging cities will have significant infrastructure development needs to achieve high quality of life, which can be met through energy-efficient infrastructures and services, and people-centred urban design (high confidence). The long lifespan of urban infrastructures locks in behaviour and committed emissions. Urban infrastructures and urban form can enable socio-cultural and lifestyle changes that can significantly reduce carbon footprints. Rapidly growing cities can avoid higher future emissions through urban planning to co-locate jobs and housing to achieve compact urban form, and by leapfrogging to low-carbon technologies. Established cities will achieve the largest GHG emissions savings by replacing, repurposing, or retrofitting the building stock, targeted infilling and densifying, as well as through modal shift and the electrification of the urban energy system. New and emerging cities have unparalleled potential to become low or net zero GHG emissions while achieving high quality of life by creating compact, co-located, and walkable urban areas with mixed land use and transit-oriented design, that also preserve existing green and blue assets. {8.2, 8.4, 8.6}
B.2.3	Chapter 8	36	41	replace '24.5 GtCO ₂ -eq' with '25 GtCO ₂ -eq'
B.2.3	Chapter 8	36	42	replace '28.5 +/- 0.1 GtCO ₂ -eq' with '29 GtCO ₂ -eq'
B.2.3	Chapter 8	36	43	delete "excluding aviation, shipping, and biogenic sources." and insert new sentence "This estimate includes all CO ₂ and CH ₄ emissions except aviation, shipping, and biogenic sources (i.e., land-use change, forestry, and agriculture)."
B.2.3	Chapter 8	38	13	After "region." insert new sentence: "This estimate is derived from consumption-based accounting that includes both direct emissions from within urban areas and indirect emissions from outside urban areas related to the production of electricity, goods, and services consumed in cities. It incorporates all CO ₂ and CH ₄ emissions except aviation, shipping and biogenic sources (i.e., land-use change, forestry, and agriculture)."
B.2.3	Chapter 8	38	13-14	delete "The total values exclude aviation, shipping, and biogenic sources."

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B.2.3	Chapter 8	46	15	replace '28.5 +/- 0.1 GtCO ₂ -eq' with '29 GtCO ₂ -eq'
C.1	Chapter 8	46	16-27	New language to accommodate language on IMPs. Edited lines should now read: "By 2050, with moderate to low urban mitigation efforts, urban emissions are projected to rise to 34.0 GtCO ₂ -eq (SSP2-4.5) or 40.2 GtCO ₂ -eq (SSP3-7.0) —driven by growing urban population, infrastructure, and service demands. However, scenarios that involve rapid urbanization can have different outcomes as seen in SSP1-RCP1.9 based on green growth, versus SSP5-RCP8.5 with the strongest carbon lock-in lacking any decarbonization. Other scenarios involve mixed and/or low urbanization, along with other differences, including the implementation of electrification, energy, and material efficiency, technology development and innovation, renewable energy preferences, and behavioural, lifestyle, and dietary responses (see Table 8.2). With aggressive and immediate mitigation efforts to limit global warming to 1.5°C (>50%) with no or limited overshoot, urban GHG emissions could approach net zero and reach a maximum of 3.3 GtCO ₂ -eq in 2050 (SSP1-RCP1.9). Under aggressive but not immediate urban mitigation efforts to limit global warming to 2°C (>67%), urban emissions could reach 17.2 GtCO ₂ -eq in 2050 (SSP1-RCP2.6)."
C.6.2	Chapter 8	47	8	Add footnote to end of sentence, after "...implementations.": footnote: "These scenarios have been assessed by WGI to correspond to intermediate, high, and very low GHG emissions."
C.1	Chapter 8	47	footnote	New language added to accommodate language on IMPs. Edited footnote should now read: "The SSP1-RCP1.9 scenario is aligned with the C1 category of the Illustrative Mitigation Pathways (IMPs) that include IMP-LD, IMP-Ren and IMP-SP. Implications are provided in Table 8.3."
C.1	Chapter 8	50	5	New language added to accommodate language on IMPs. Edited text should now read: "IMP-Ren, IMP-LD and IMP-SP represent pathways in the C1 category that also includes SSP1-1.9."
C.6 HS	Chapter 8	51	4	replace "stocks and uptake" with "storage in the urban environment"
C.6 HS	Chapter 8	51	2-3	replace "reducing urban energy consumption" with "reducing or changing urban energy and material use towards more sustainable production and consumption"
B.2.3	Chapter 8	54	6	After "built" add "(i.e., urban form)"
C.6 HS	Chapter 8	98	1	replace "reduce urban energy consumption" with "reduce or change urban energy and material use towards more sustainable production and consumption"

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C.6.1	Chapter 8	4-5	43-4	<p>REVISED STATEMENT SHOULD READ: "The global share of future urban GHG emissions is expected to increase through 2050 with moderate to low mitigation efforts due to growth trends in population, urban land expansion, and infrastructure and service demands, but the extent of the increase depends on the scenario and the scale and timing of urban mitigation action (medium confidence). In modelled scenarios, global consumption-based urban CO₂ and CH₄ emissions are projected to rise from 29 GtCO₂-eq in 2020 to 34 GtCO₂-eq in 2050 with moderate mitigation efforts (intermediate GHG emissions, SSP2-4.5), and up to 40 GtCO₂-eq in 2050 with low mitigation efforts (high GHG emissions, SSP 3-7.0). With aggressive and immediate mitigation efforts to limit global warming to 1.5°C (>50%) with no or limited overshoot by the end of the century (very low emissions, SSP1-1.9), including high levels of electrification, energy and material efficiency, renewable energy preferences, and socio-behavioural responses, urban GHG emissions could approach net-zero and reach a maximum of 3 GtCO₂-eq in 2050. Under a scenario with aggressive but not immediate urban mitigation policies to limit global warming to 2°C (>67%) (low emissions, SSP1-2.6), urban emissions could reach 17 GtCO₂-eq in 2050. [FOOTNOTE] (Figure TS.13) {8.3.4}"</p> <p>FOOTNOTE: "These scenarios have been assessed by WGI to correspond to intermediate, high, and very low GHG emissions."</p>
C.6.2	Chapter 8		20-22	insert confidence level for lines 20-22 as 'high agreement, robust evidence' (this represents the correct assessment for the climate mitigation co-benefits)
C.6 HS	Chapter 8			For all appearances of "net zero" where "net zero" modifies a noun (e.g., "net zero cities" or "net zero emissions"), and a hyphen is missing, please add hyphen between "net" and "zero" so it reads "net-zero" before noun (e.g., "net-zero cities" or "net-zero emission")
Footnote in C7.3	Chapter 9	Section 9.9.3.1 page 83	Line 28	Add text from footnote included in C7.3 which defines sufficiency policies (a set of measures and daily practices that avoid the demand for energy, materials, water and land while delivering wellbeing for all within planetary boundaries
C10 Figure SPM 6			Figure SPM 6	Add a note to clarify that potentials from socio-cultural factors and infrastructure use reflect mitigation potential from sufficiency interventions

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C8	Chapter 10			Please align references to scenario categories with the approved language from the plenary, e.g. C1, C3. This includes updating (as needed) the labels in Figure 10.13, Figure 10.14, and Figures 10.17 to Figure 10.21
C12.1, Figure SPM.7	Chapter 12 - Supplementary material	5	17	Replace "For electric vehicles" with: "Electric light duty vehicles currently still are often more expensive over the lifetime than vehicles with internal combustion engines. Costs of batteries are falling rapidly (Section 2.5.3) and "
C12.1, Figure SPM.7	Chapter 12 - Supplementary material	5	18	Add after "prior to that date.": "This means that mitigation costs will be highly variable until 2030, so no mitigation costs could be assigned to this technology. The same is valid for electric heavy duty vehicles."
C12.1, Figure SPM.7	Chapter 12	21	Table 12.3	Line 'Light duty vehicles – electric vehicles': Remove "0.5" from second column. • Add to last column: "Estimated potential is 0.5 GtCO ₂ -eq, mitigation costs are variable."
C12.1, Figure SPM.7	Chapter 12	21	Table 12.3	Line 'Heavy duty vehicles – electric vehicles': Remove "0.2" from second column. •
C12.1, Figure SPM.7	Chapter 12	21	Table 12.3	Line 'Carbon capture, utilization and storage (CCU and CCS)': Add in the fifth column below 0.15: "(0.08 – 0.36)"
C12	Chapter 12	Figure SPM 7	Figure SPM 7	Cost and potentials-Replace 'avoid demand for energy services' par sufficiency measures
C12, Figure SPM 7			Figure SPM 7	Replace 'avoid demand for energy services' par sufficiency interventions
E4	Chapter 13	5	46-47	<i>Change the existing sentence 'Removing fossil fuel subsidies could reduce emissions by 1-10% by 2030 while improving public revenue and macroeconomic performance (robust evidence, medium agreement). {13.6}.'</i> <i>to the following sentence: 'Removing fossil fuel subsidies would reduce emissions, improve public revenue and macroeconomic performance, and yield other environmental and sustainable development benefits. Subsidy removal may have adverse distributional impacts which can be mitigated by measures such as re-distributing revenue saved (high confidence). Fossil fuel subsidy removal is projected by various studies to reduce global CO₂ emissions by 1-4%, and GHG emissions by up to 10% by 2030, varying across regions (medium confidence). {13.6}'</i>
C3	Chapter 14	25	Figure 14.2	Figure needs to be replaced, to take into modification of pathways data. Tony Patt has emailed the revised figure file to Renée.

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
E4	Chapter 14	48	3-6	<p><i>Change the existing sentence 'Modelling studies of global fossil fuel subsidy removal result in projected emission reductions of between 1 and 10 per cent by 2030 (Delpiazzo et al. 2015; IEA 2015; Jewell et al. 2018; IISD 2019) and between 6.4 and 8.2 per cent by 2050 (Schwanitz et al. 2014; Burniaux and Chateau 2014).'</i></p> <p><i>to the following sentence: 'Modelling studies of global fossil fuel subsidy removal result in projected global carbon dioxide emission reductions of between 1 and 4 percent (Jewell et al. 2018, Delpiazzo et al. 2015) and GHG emissions by up to 10 per cent by 2030 (IEA 2015) or 6 to 8 per cent by 2050 (Schwanitz et al. 2014, Burniaux and Chateau 2014, IISD 2019). These are global projections and the extent of emission reductions varies by region.'</i></p>
C3	Chapter 14	25	27 - 29	Replace "cost-effective long-term mitigation pathways for limiting warming to 1.5°C with low (<0.1°C) overshoot (50% chance), respectively for limiting warming to 2°C (66% chance)" with "pathways that limit warming to 1.5°C (>50%) with no or limited overshoot, and those to limit warming to 2°C (>67%)"
SPM E5.1	Chapter 15	3	14	<p>FOOTNOTE X on the use of the term needs in the chapter and the SPM. FOOTNOTE X: "The term Investment 'Needs' used in the chapter means equal to the term Investment Requirement used in SPM"</p> <p>In the SPM at E.5.1 after "Average annual modelled investment requirements FOOTNOTE X"</p> <p>In the Chapter at page 3, line 14 after "investment needs FOOTNOTE X"</p>
B5.4	Chapter 15	3	34	remove 'promising'
SPM E5.1	Chapter 15	4	5	Add footnote to XX on regional investment in ES (p.4 line 5) and in 15.5 (p.39, line 19)
E5.1	Chapter 15	4	5	add 'is wide for all sectors and': The gap 'is wide for all sectors and' represent
E5.1	Chapter 15	4	5	Replace confidence statement from (high confidence) to (medium confidence)
E5.1	Chapter 15	4	7	add 'in relative terms': like AFOLU 'in relative terms'
E5.1	Chapter 15	4	10	<p>replace "magnitude of the challenge, with financial and economic viability, access to capital markets, appropriate regulatory frameworks and institutional capacity to attract and facilitate investments and ensure safeguards being decisive to scale-up financing" with</p> <p>: "...magnitude of the challenge, with financial and economic viability, access to capital markets, investment requirements for adaptation, reduction of losses and damages, climate-responsive social protection, appropriate regulatory frameworks and</p>

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
				institutional capacity to attract and facilitate investments and ensure safeguards being decisive to scale-up financing”
E5.1	Chapter 15	4	10	Add the list to (p.4, line 10). “...driving the magnitude of the challenge, with financial and economic viability, access to capital markets, investment requirements for adaptation, reduction of losses and damages, climate-responsive social protection, appropriate regulatory frameworks and institutional capacity to attract and facilitate investment...”
SPM E5.4	Chapter 15	4	41	Add "and clear" and remove "can" text to: Providing strong climate policy signals helps guide investment decisions. Credible, and clear signaling by governments and the international community reduce can uncertainty for financial decision-makers and help reduce transition risk.
B5.4	Chapter 15	5	11	Replace "Green bond market and markets for sustainable finance product" with "Markets for green bonds, ESG (environmental, social and governance) and sustainable finance products"
B5.4	Chapter 15	5	15	Replace "Green bond market and markets for sustainable finance product" with "Markets for green bonds, ESG (environmental, social and governance) and sustainable finance products"
E5.4	Chapter 15	5	46	Add ‘economic instruments’: (vii) economic instruments, such as phasing-in carbon pricing and phasing out fossil fuel subsidies, in a way...
	Chapter 15	32	10	Replace “global mitigation pathways assessed in Chapter 3 for key energy sub-sectors for scenarios likely to limit warming to 2°C or lower” with “global modelled mitigation pathways assessed in Chapter 3 for key energy sub-sectors for scenarios, likely to limit warming to 2°C or lower”
C9.1	Chapter 15	35	6	Replace this paragraph based on a change done by chapter 7 in the SPM C9.1: Chapter 7 stresses the importance of opportunity costs for AFOLU mitigation options, in particular for afforestation and avoided deforestation projects, and derives net annual costs of around 278 billion USD yr-1 in the next several decades, mostly opportunity costs. Net costs of delivering 5-6 Gt CO2 yr-1 of forest related carbon sequestration and emission reduction around 2050 as assessed with sectoral models are estimated to reach to ~USD400 billion yr-1 by 2050., excluding externality costs (Chapter 7.4).
SPM E5.1	Chapter 15	39	19	Add footnote to XX on regional investment in ES (p.4 line 5) and in 15.5 (p.39, line 19)

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
E5.2	Chapter 15	39	26	Replace ‘highly divergent financial risk-return profiles and economic costs as well as standardization, scalability and replicability of investment opportunities as basis for private sector investment appetite.’ with ‘highly divergent financial risk-return profiles, in particular due to missing or weak regulatory environments consistent with ambitions levels, and economic costs as well as limited local capital markets, limited institutional capacity to ensure safeguard, standardization, scalability and replicability of investment opportunities and financing models, and a pipeline ready for commercial investments’
B5.4	Chapter 15	90	46	remove 'promising'
E5.1	Chapter 15	91	11	replace ‘until 2030’ with ‘between 2020 and 2030’
	Chapter 15	all	all	Replace 'Asia-Pacific Developed' with 'Australia, Japan and New Zealand' in various sections
E3	Chapter 15		Several	Replace the use of the phrase 'Indigenous groups' with 'Indigenous Peoples' throughout chapter 13 and TS statements related to Ch13
Box SPM.1	Chapter 16	27	27	Replace “AR6 low-carbon pathways” by “AR6 global modelled pathways”
Box SPM.1	Chapter 16	27	30	Replace “1) reference and current policies including NDCs and 2) 2°C and well-below 2°C” by “1) scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%), and 2) and scenarios that limit warming to 2°C (>67%) or lower”
Box SPM.1	Chapter 16	27	44	Replace “current policies scenarios” by “scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%)”
Box SPM.1	Chapter 16	27	39-40	Replace ““current policies” scenarios (Box 16.1, Figure 1b), where energy and climate policies are implemented in line with the current NDCs” by “scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%) (Box 16.1 Figure 1b)” to read “Median values of renewables installed capacity increase with respect to 2020 capacity scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%) (Box 16.1 Figure 1b)”
Box SPM.1	Chapter 16	28	1	Replace “2°C and well-below 2°C scenarios” by “scenarios that limit warming to 2°C (>67%) or lower” to read “In the case of the scenarios that limit warming to 2°C (>67%) or lower,” instead of “In the case of the 2°C and well-1 below 2°C scenarios,”

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
Box SPM.1	Chapter 16	28	4	Replace “2°C scenarios” by “scenarios that limit warming to 2°C (>67%) or lower” to read “The higher deployment in the scenarios that limit warming to 2°C (>67%) or lower cannot be” instead of “The higher deployment in 2°C scenarios cannot be...”
Box SPM.1	Chapter 16	28	11-12	In the figure caption, replace “1) reference and current policies including NDCs and 2) 2°C and well-below 2°C” by “1) scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%) (“Reference and current policies”), and 2) scenarios that limit warming to 2°C (>67%) or lower (“2°C and 1.5°C)”
Box SPM.1	Chapter 16	29	2	Replace “Reference and current policies’ are C6 and C7 scenario categories” by “ ‘Reference and current policies’ are scenarios that limit warming to 3°C (>50%) and scenarios that limit warming to 4°C (>50%) (C6 and C7 AR6 scenario categories)”
Box SPM.1	Chapter 16	29	2-3	Replace “ ‘2C and .5C’ are C1, C2 and C3 scenario categories” by “ ‘2C and .5C’ are scenarios that limit warming to 2°C (>67%) or lower (C1, C2 and C3 AR6 scenario categories)”
D1	SDGs	Figure SPM 8	Figure SPM 8	Add a note clarifying that: building design and changes in construction methods and circular economy are sufficiency interventions
Figure SPM8	Chapter 17	section 17.3.3		Update Figure 17.1 will all changes to SPM8 approved by plenary
D1. Figure SPM 8:			Figure SPM 8	Add a note clarifying that: <ul style="list-style-type: none"> · Building design · Change in construction methods and circular economy Are sufficiency interventions
B3	Glossary	12		Change “A set of essential material preconditions for human wellbeing” to “A set of essential minimum material preconditions for human wellbeing”
C10	Glossary			Add definition of ‘choice architecture’ to the glossary: “Choice architecture = The presentation of choices to consumers, and the impact that presentation has on consumer decision-making”
C8	Glossary			Update definition of ‘sufficiency’ in the glossary “Sufficiency policies = A set of measures and daily practices that avoid demand for energy, materials, land and water while delivering human wellbeing for all within planetary boundaries”
B3	Glossary			Add definition of ‘access to modern energy services’: “Access to modern energy services = Access to clean, reliable and affordable energy services for cooking and heating, lighting, communications, and productive uses”

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
B3	Glossary			Update definition of 'decent living standards': "Decent living standards = A set of minimal material requirements essential for achieving basic human well-being, including nutrition, shelter, basic living conditions, clothing, health care, education, and mobility"
Box SPM.1	Annex III	all Part II.3	all Part II.3	change climate category names to names agreed in SPM.
SPM Box.1	Annex III	II-61	4-15	Change of description of IMPs, to be reflected in paragraph
SPM Box.1	Annex III	II-62	2 (Table II.2)	Change of description of IMPs, to be reflected in Table II.2
Table SPM.1	Annex III	II-68	16	Add caveat that not all figures contain all scenarios in the database depending on the scope of the analysis.
Box SPM.1	Annex III	II-75	15 (Table II.7)	Reflect climate categorization and category names as agreed in SPM in Table II.7
Box SPM.1	Annex III	II-76	2(Table II.8)	Reflect climate categorization and category names as agreed in SPM in Table II.8
SPM Box.1	Annex III	II-80	41 (Table II.10)	Scenario count of cost-effective scenarios mentioned. Add column of scenario count per policy category for scenarios that passed vetting and with climate outcome
B3, Figure SPM.2	Annex II			Instances of "regional classification" to be changed to "regional groupings" for consistency with SPM.2
A, C.6	TS	2	11	insert "systems" after "Urban" so that the title of 5.2 reads "Urban systems and other settlements" (consistency with the title of Chapter 8)
B3, Figure SPM.2	TS	18	Figure TS.4	Figure updated to R10 geographic regions in panel a and b to reflect changes approved to SPM.2 in the plenary
B2	TS	23	20	Add "(medium confidence)" to the end of the sentence starting "Emission growth in AFOLU is more uncertain..."
A, C.6	TS	61	1	insert "systems" after "Urban" so that the title of 5.2 reads "Urban systems and other settlements" (consistency with the title of Chapter 8)
B.2.3	TS	61	11	add "(i.e., urban form)" after "how cities are laid out" (now reads: "how cities are laid out (i.e., urban form)")

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C.6.1	TS	61	16-22	<p>REVISED STATEMENT SHOULD READ: "The urban share of combined global (CO₂ and CH₄) emissions is substantial and continues to increase (high confidence). In 2015, urban emissions were estimated to be 25 GtCO₂-eq (about 62% of the global share) and in 2020, 29 GtCO₂-eq (67-72% of the global share).[FOOTNOTE] About 100 of the highest emitting urban areas account for approximately 18% of the global carbon footprint (high confidence). {8.1, 8.3}"</p> <p>FOOTNOTE: "These estimates are based on consumption-based accounting, including both direct emissions from within urban areas, and indirect emissions from outside urban areas related to the production of electricity, goods, and services consumed in cities. Estimates include all CO₂ and CH₄ emission categories except for aviation and marine bunker fuels, land-use change, forestry, and agriculture. {8.1, Annex I: Glossary}"</p>
B.2.3	TS	62	4	<p>Add after "legend:" (as new, first sentence): "This estimate is derived from consumption-based accounting that includes both direct emissions from within urban areas and indirect emissions from outside urban areas related to the production of electricity, goods and services consumed in cities."</p>
B.2.3	TS	62	4	<p>replace "exclude aviation, shipping, and biogenic sources" with "exclude aviation and marine bunker fuels, and biogenic sources (i.e., land-use change, forestry, and agriculture sources)"</p>

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C.6.1	TS	63	1-2	<p>REVISED STATEMENT SHOULD READ: "The global share of future urban GHG emissions is expected to increase through 2050 with moderate to low mitigation efforts due to growth trends in population, urban land expansion, and infrastructure and service demands, but the extent of the increase depends on the scenario and the scale and timing of urban mitigation action (medium confidence). In modelled scenarios, global consumption-based urban CO₂ and CH₄ emissions are projected to rise from 29 GtCO₂-eq in 2020 to 34 GtCO₂-eq in 2050 with moderate mitigation efforts (intermediate GHG emissions, SSP2-4.5), and up to 40 GtCO₂-eq in 2050 with low mitigation efforts (high GHG emissions, SSP 3-7.0). With aggressive and immediate mitigation efforts to limit global warming to 1.5°C (>50%) with no or limited overshoot by the end of the century (very low emissions, SSP1-1.9), including high levels of electrification, energy and material efficiency, renewable energy preferences, and socio-behavioural responses, urban GHG emissions could approach net-zero and reach a maximum of 3 GtCO₂-eq in 2050. Under a scenario with aggressive but not immediate urban mitigation policies to limit global warming to 2°C (>67%) (low emissions, SSP1-2.6), urban emissions could reach 17 GtCO₂-eq in 2050. [FOOTNOTE] (Figure TS.13) {8.3.4}"</p> <p>FOOTNOTE: "These scenarios have been assessed by WGI to correspond to intermediate, high, and very low GHG emissions."</p>
C.6	TS	64	3	replace "five" with "six" (should read: "six regional domains")
C.6.1	TS	64	4	After "regions" end sentence, insert footnote: "These scenarios have been assessed by WGI to correspond to intermediate, high, and very low GHG emissions."
C.6	TS	65	13	"emissions (medium evidence, high agreement)." should be BOLD
C.6	TS	65	20	"change (very high confidence)." should be BOLD
C.6 HS	TS	65	25	delete "or near net zero"
C.6 HS	TS	65	25	hyphen between "net" and "zero" (reads: "net-zero"); please also make consistent throughout chapter (any time "net zero" is modifying a noun - as in "net-zero emission" for example, it should be hyphenated)
C.6 HS	TS	65	27	replace "reducing urban energy consumption" with "reducing or changing urban energy and material use towards more sustainable production and consumption"
C.6 HS	TS	65	29	replace "stocks" with "storage in the urban environment"

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
C.6 HS, C.6.2	TS	65	30	Replace "(medium evidence, high agreement)" with "(high evidence, high agreement)"
C.6 HS	TS	65	26-27	replace "Effective emission reductions in cities entail implementing three broad strategies concurrently" with "Three broad mitigation strategies have been found to be effective in reducing emissions when implemented concurrently"
C.6 HS, C.6.4	TS	65	30-32	replace "a city cannot achieve net zero GHG emissions by only focusing on reducing emissions within its administrative boundaries" with "cities can achieve net-zero emissions only if emissions are reduced within and outside of their administrative boundaries through supply chains."
C.6.2	TS	66	6	Insert footnote after "roofs": "These examples are considered to be a subset of nature-based solutions or ecosystem-based approaches."
C.6	TS	66	12	insert confidence level for lines 10-12 as 'high agreement, robust evidence' (this represents the correct assessment for the climate mitigation co-benefits)
C.6.2	TS	66	13	replace "potentials" with "potential" (should not be plural)
C.6.2	TS	66	13-26	REVISED STATEMENT SHOULD READ: The potential and sequencing of mitigation strategies to reduce GHG emissions will vary depending on a city's land use, spatial form, development level, and state of urbanization (i.e., whether it is an established city with existing infrastructure, a rapidly growing city with new infrastructure, or an emerging city with infrastructure build-up) (high confidence). New and emerging cities will have significant infrastructure development needs to achieve high quality of life, which can be met through energy-efficient infrastructures and services, and people-centred urban design (high confidence). The long lifespan of urban infrastructures locks in behaviour and committed emissions. Urban infrastructures and urban form can enable socio-cultural and lifestyle changes that can significantly reduce carbon footprints. Rapidly growing cities can avoid higher future emissions through urban planning to co-locate jobs and housing to achieve compact urban form, and by leapfrogging to low-carbon technologies. Established cities will achieve the largest GHG emissions savings by replacing, repurposing, or retrofitting the building stock, targeted infilling and densifying, as well as through modal shift and the electrification of the urban energy system. New and emerging cities have unparalleled potential to become low or net zero GHG emissions while achieving high quality of life by creating

SPM section number	Document (Chapter, Annex, Supp. Material)	Page (Based on the final pdf FGD version)	Line number	Summary of edit to be made:
				compact, co-located, and walkable urban areas with mixed land use and transit-oriented design, that also preserve existing green and blue assets. {8.2, 8.4, 8.6}
Footnote in C7.3	TS	Page 71	Line 25	Add text from footnote included in C7.3 which defines sufficiency policies (a set of measures and daily practices that avoid the demand for energy, materials, water and land while delivering wellbeing for all within planetary boundaries
C12.1, Figure SPM.7	TS	TS.108	TS.23	Replace Figure TS.23 by new Figure SPM.7 without intent line. Change the line of sight in the caption from Figure SPM.8 to Figure SPM.7
B3, Figure SPM.2	TS			Instances of "regional classification" to be changed to "regional groupings" for consistency with SPM.2
C.6 HS	TS			For all appearances of "net zero" where "net zero" modifies a noun (e.g., "net zero cities" or "net zero emissions"), and a hyphen is missing, please add hyphen between "net" and "zero" so it reads "net-zero" before noun (e.g., "net-zero cities" or "net-zero emission")