Errata in Climate Change 2022: Mitigation of Climate Change
Working Group III Contribu2on to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (WGIII AR6)

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Errors identified subsequent to governmental approval, handled in accordance with the IPCC protocol for addressing possible errors in IPCC Assessment Reports, Synthesis Reports, Special Reports, and Methodology Reports, and corrected in the published version: hDps://www.ipcc.ch/site/assets/uploads/2018/09/ipcc_error_protocol_en.pdf

Location	**Page**	**Correction**
Throughout the report	307	**Table 3.1:** Scenario category names have been substituted: C1 "limit warming to 1.5°C with no or limited overshoot" has been replaced with "limit warming to 1.5°C (>50%) with no or limited overshoot" C2 "limit warming to 1.5°C with high overshoot" has been replaced with "return warming to (1.5°C >50%) after a high overshoot" C3 "Likely below 2°C" has been replaced with "limit warming to 2°C (>67%)" C4 "Below 2°C" has been replaced with "limit warming to 2°C (>50%)" C5 "Below 2.5°C" has been replaced with "limit warming to 2.5°C (>50%)" C6 "Below 3°C" has been replaced with "limit warming to 3°C (>50%)" C7 "Below 4°C" has been replaced with "limit warming to 4°C (>50%)" C8 "Above 4°C" has been replaced with "exceed warming of 4°C (≥50%) C1, C2 and C3 "Likely limit to 2°C or lower" has been replaced with "limit warming to 2°C (>67%) or lower"
Throughout the report	1825	**Annex II Table 1**: The names of the following low-level regions have been substituted: "Asia-Pacific Developed" has been replaced with "Australia, Japan and New Zealand" "Asia and developing Pacific" has been replaced with "Asia and Pacific" "South-East Asia and developing Pacific" has been replaced with "South-East Asia and Pacific"
SPM	8	Footnote 14: "+5.9 (±4.1)" has been replaced with "+5.7 (±4.0)".
SPM	8	Footnote 14: "2.2" in the line of sight has been replaced with "Table 2.1"
SPM	15	Figure SPM4: In the 2100 panel the p75 level for current policies has been set to 74.16 instead of 70
SPM	15	Figure SPM.4: A discrepancy in the lines between panel a and b in 2030 has been corrected

SPM	17	Footnote 40: "In the same type of pathways assessed in SR1.5, GHG emissions are reduced by 45% (40-60% interquartile range) relative to 2010.” has been replaced with: "In the same type of pathways assessed in SR1.5, reported GHG emissions reductions in 2030 were 39-51% (interquartile range) relative to 2010.”
SPM	17	Footnote 40: A line of sight to SR1.5 "{SR1.5 Figure SPM.3b}" has been added
SPM	28	Footnote 54 : " In this context, ‘unabated fossil fuels’ refers to fossil fuels produced and used without interventions that substantially reduce the amount of GHG emitted throughout the life-cycle; for example, capturing 90% or more from power plants, or 50-80% of fugitive methane emissions from energy supply. {Box 6.5, 11.3}" has been replaced with: "In this context, ‘unabated fossil fuels’ refers to fossil fuels produced and used without interventions that substantially reduce the amount of GHG emitted throughout the life-cycle; for example, capturing 90% or more CO_2 from power plants, or 50-80% of fugitive methane emissions from energy supply. {Box 6.5, 11.3}"
SPM	34	C10.2: "By 2050, comprehensive demand-side strategies across all sectors could reduce CO_2 and non-CO_2 GHG emissions globally by 40– 70% compared to the 2050 emissions projection of two scenarios consistent with policies announced by national governments until 2020…." has been replaced with: "By 2050, comprehensive demand-side strategies could reduce direct and indirect CO_2 and non-CO_2 GHG emissions in three end-use sectors (buildings, land transport, and food) globally by 40%–70% compared to the 2050 emissions projection of two scenarios consistent with policies announced by national governments until 2020…."
SPM	36	C.11.1: “45-100 USD/tCO_2” has been replaced with “-45-100 USD/tCO_2”
SPM	41	Figure 8: The “-“ symbol showing the link between response option: “Highly energy efficient building envelope” and “SDG 17” has been replaced with “+”
SPM	42	D2.2: "Land-related mitigation options with potential co-benefits for adaptation include agroforestry, cover crops, intercropping, and perennial plants, thus restoring natural vegetation and rehabilitating degraded land." has been replaced with:

		"Land-related mitigation options with potential co-benefits for adaptation include agroforestry, cover crops, intercropping, perennial plants, restoring natural vegetation and rehabilitating degraded land."
Technical Summary	57	**Table TS.1: Row 2 col 1:** "At least 24 countries have reduced both territorial carbon dioxide (CO_2) and GHG emissions and consumption-based CO_2 emissions in absolute terms for at least 10 years, including consumption-based CO_2 emissions. Of these, six are Western and Northern European countries that started reducing in the 1970s, six are former Eastern Bloc countries with consistent reductions since the 1990s, and 12 more have reduced since the mid-2000s. Some have done so at rapid sustained CO_2 reduction rates of 4% yr^{-1}. (TS.3) {2.2}" has been replaced with: "A growing number of countries have reduced both territorial carbon dioxide (CO_2) and GHG emissions and consumption-based CO_2 emissions in absolute terms for at least 10 years, including consumption-based CO_2 emissions. These include mainly European countries, some of which have reduced production-based GHG emissions by a third or more since peaking. Some countries have achieved several years of rapid sustained CO_2 reduction rates of 4% yr^{-1}. (TS.3) {2.2}"
Technical Summary	57	**Table TS.1: Row 2. Col 2:** 'The combined emissions reductions of these 24 countries were outweighed by rapid emissions growth elsewhere, particularly among developing countries that have grown from a much lower base of per-capita emissions. Uncertainties in emissions levels and changes over time prevents a precise assessment of reductions in some cases. The per-capita emissions of developed countries remain high, particularly in Australia, Canada, and the United States of America. {2.2}' has been replaced with: "The combined emissions reductions achieved by some countries have been outweighed by rapid emissions growth elsewhere, particularly among developing countries that have grown from a much lower base of per-capita emissions. Uncertainties in emissions levels and changes over time prevents a precise assessment of reductions in some cases. The per-capita emissions of developed countries remain high, particularly in Australia, Canada, and the United States of America. {2.2}"

Technical Summary	61	**TS.3:** "A growing number of countries have achieved GHG emission reductions over periods longer than 10 years – a few at rates that are broadly consistent with the global rates described in climate change mitigation scenarios that limit warming to 2°C (>67%) (*high confidence*). At least 24 countries have reduced CO_2 and GHG emissions for longer than 10 years..." has been replaced with: "A growing number of countries have achieved GHG emission reductions over periods longer than 10 years – a few at rates that are broadly consistent with the global rates described in climate change mitigation scenarios that limit warming to 2°C (>67%) (*high confidence*). At least 18 countries have reduced CO_2 and GHG emissions for longer than 10 years…"
Technical Summary	67	**Figure TS.7 Legend:** "The upper panel shows levelised costs of electricity (LCOE) for rapidly changing mitigation technologies. Solid blue lines indicate average market cost in each year. Light blue shaded areas show the range between the 5th and 95th percentiles in each year. Grey shading indicates the range of fossil fuel (coal and gas) LCOE in 2020 (corresponding to USD55-148 per MWh). LCOE allows consistent comparisons of cost trends across a diverse set of energy technologies to be made; it does not include environmental externalities and does not reflect variation in the value of electricity over time and space (see Chapter 6). The lower panel shows cumulative global adoption for each technology, in GW of installed capacity for renewable energy and in millions of vehicles for electric vehicles. A vertical dashed line is placed in 2010 to indicate change since AR5. The market share percentages shown are the 2020 shares based on provisional data, i.e., percentage of total electricity production (for PV, Onshore wind, Offshore wind, concentrating solar power (CSP)) and of passenger total vehicles (for electric vehicles). The electricity market share is generally lower than the share of production capacity given lower capacity factors for these renewable technologies. {2.5, 6.4}" has been replaced with: "The **top panel** shows global costs per unit of energy (USD per MWh) for some rapidly changing mitigation technologies. Solid blue lines indicate average unit cost in each year. Light blue shaded areas show the range between the 5th and 95th percentiles in each year. Grey shading indicates the range of unit costs for new fossil fuel (coal and gas) power in 2020 (corresponding to USD55–148 per MWh). In 2020, the levelised costs of energy (LCOE) of the four renewable energy technologies could compete with fossil fuels in many places. For batteries, costs shown are for 1 kWh of battery storage capacity; for the others, costs are LCOE, which includes installation, capital, operations, and maintenance costs per MWh of electricity produced. The literature uses LCOE because it allows consistent comparisons of cost trends across a diverse set of energy technologies to be made. However, it does not include the

		costs of grid integration or climate impacts. Further, LCOE does not take into account other environmental and social externalities that may modify the overall (monetary and non-monetary) costs of technologies and alter their deployment. The bottom panel shows cumulative global adoption for each technology, in GW of installed capacity for renewable energy and in millions of vehicles for battery-electric vehicles. A vertical dashed line is placed in 2010 to indicate the change since AR5. Shares of electricity produced and share of passenger vehicle fleet are indicated in text for 2020 based on provisional data, i.e., percentage of total electricity production (for PV, onshore wind, offshore wind, CSP) and of total stock of passenger vehicles (for EVs). The electricity production share reflects different capacity factors; for example, for the same amount of installed capacity, wind produces about twice as much electricity as solar PV. {2.5, 6.4} Renewable energy and battery technologies were selected as illustrative examples because they have recently shown rapid changes in costs and adoption, and because consistent data are available. Other mitigation options assessed in the report are not included as they do not meet these criteria."
Technical Summary	69	**Figure TS.9:** In the 2100 panel the p75 level for current policies has been set to 74.16 instead of 70
Technical Summary	69	**Figure TS.9:** A discrepancy in the lines between panel a and b in 2030 has been corrected
Technical Summary	82	**TS.4.2:** "Pathways limiting warming to 2°C (>67%) or 1.5°C (>50%) and below exhibit substantial reductions in emissions from all sectors (high confidence). 1.5°C pathways with no or limited overshoot entail CO_2 emissions reductions between 2019 and 2050 of around 77% (31–96%) for energy demand, around 115% (90–167%) for energy supply, and around 148% (94–387%) for AFOLU. In pathways limiting warming to 2°C (>67%), projected CO_2 emissions are reduced between 2019 and 2050 by around 49% for energy demand, 97% for energy supply, and 136% for AFOLU (medium confidence). {3.4}" has been replaced with: "Pathways that limit warming to 2°C (>67%) or lower exhibit substantial reductions in emissions from all sectors (*high confidence*). Pathways that limit warming to 1.5°C (>50%) with no or limited overshoot entail CO_2 emissions reductions between 2019 and 2050 of around 77% (31–96%) for energy demand, around 115% (90–167%) for energy supply, and around 148% (94–387%) for AFOLU.16 In pathways that limit warming to 2°C (>67%), projected CO_2 emissions are reduced between 2019 and 2050 by around 49% for energy demand, 97% for energy supply, and 136% for AFOLU (*medium confidence*). {3.4}"
Technical Summary	115	**Table TS.7 row 9, column 6:** "Enhanced plant growth, reduced erosion, enhanced soil carbon, reduced pH, soil water retention." has been replaced with:

		“Enhanced plant growth, reduced erosion, enhanced soil carbon, reduced soil acidity, enhanced soil water retention.”
Technical Summary	118	**Figure TS.20, Panel (a).** "Consumption of top 10%" has been replaced with "Consumption of top 10% (excluding top 1%)"
1	165	1.3.3: "Section 1.4.5" has been replaced with "Section 1.4.6"
1	172	1.4.9: "Section 1.4.5" has been replaced with "Section 1.4.6"
2	237	2.2.4: "Ranking of high-emitting sectors by direct emissions highlights the importance of CO_2 emissions from LULUCF (6.6 $GtCO_2$-eq; but with low confidence in magnitude and trend), road transport (6.1 $GtCO_2$-eq), metals (3.1 $GtCO_2$-eq), and other industry (4.4 $GtCO_2$-eq) subsectors." has been replaced with: "Ranking of high-emitting sub-sectors by direct emissions highlights the importance of CO_2 emissions from LULUCF (6.6 $GtCO_2$-eq; but with low confidence in magnitude and trend), road transport (6.1 $GtCO_2$-eq), metals (3.1 $GtCO_2$-eq), and other industry (4.4 $GtCO_2$-eq)."
2	242	2.3.3: "(Ward et al., 2016; Hickel and Kallis, 2020)" has been replaced with: "(Ward et al., 2016; Hickel and Kallis, 2020; Haberl et al., 2020)"
2	244	2.3.3: “(Xu and Ang, 2013; Kanitkar et al., 2015; Su and Ang, 2016)” has been replaced with: "(Kanitkar et al., 2015; Jiang et al., 2021)"

2	245	2.3.4.1: “Developing countries tend to be net emission exporters with higher PBEs than their CBEs (Peters et al. 2011a; Le Quéré et al. 2018)” has been replaced with: “Developing countries tend to be net emission exporters with higher PBEs than their CBEs (Peters et al., 2011a)”
2	282	Reference has been added: “Jiang, M. H., An X., Gao N., Jia S., Liu and H. Zheng, 2021: Structural decomposition analysis of global carbon emissions: The contributions of domestic and international input changes. J Environ Manage, 294, 112942, doi: 10.1016/j.jenvman.2021.112942”
3	298	Executive summary: “Cost-effective mitigation pathways assuming immediate actions to limit warming to 2°C (>67%) are associated with net global GHG emissions of 32–55 $GtCO_2$-eq yr^{-1} by 2030…" has been replaced with: "Cost-effective mitigation pathways assuming immediate actions to limit warming to 2°C (>67%) are associated with net global GHG emissions of 30-49 $GtCO_2$-eq yr^{-1} by 2030..."
3	298	Footnote 1: New footnote has been added: "Immediate action in modelled global pathways refers to the adoption between 2020 and at latest before 2025 of climate policies intended to limit global warming to a given level. Modelled pathways that limit warming to 2°C (>67%) based on immediate action are summarised in category C3a in Table SPM.2. All assessed modelled global pathways that limit warming to 1.5°C (>50%) with no or limited overshoot assume immediate action as defined here (Category C1 in Table SPM.2)."
3	298	Footnote 2: "'NDCs announced prior to COP26' refers to the most recent Nationally Determined Contributions submitted to the UNFCCC as well as those publicly announced with sufficient detail on targets, but not yet submitted, up to 11 October 2021, and reflected in studies published up to 11 October 2021." has been replaced with:

		"NDCs announced prior to COP26 refer to the most recent nationally determined contributions submitted to the UNFCCC up to the literature cut-off date of this report, 11 October 2021, and revised NDCs announced by China, Japan and the Republic of Korea prior to October 2021 but only submitted thereafter."
3	298	Executive Summary: "To limit warming to 2°C (>67%) after following the NDCs to 2030, the pace of global GHG emission reductions would need to accelerate quite rapidly from 2030 onward: to an average of 1.4–2.0 $GtCO_2$-eq yr^{-1} between 2030 and 2050, which is similar to global CO_2 emission reductions in 2020..." has been replaced with: "To limit warming to 2°C (>67%) after following the NDCs to 2030, the pace of global GHG emission reductions would need to accelerate quite rapidly from 2030 onward: to an average of 1.4–2.0 $GtCO_2$-eq yr^{-1} between 2030 and 2050, which is around two thirds of the global CO_2 emission reductions in 2020..."
3	300	Executive summary: "The global benefits of pathways likely limiting warming to 2°C outweigh global mitigation costs over the 21st century, …" has been replaced with: "The global benefits of limiting warming to 2°C outweigh global mitigation costs over the 21st century,..."
3	301	Executive Summary: Missing confidence statement has been added: "Different mitigation pathways are associated with different feasibility challenges, though appropriate enabling conditions can reduce these challenges (*high confidence*)"
3	301	Executive Summary: Missing confidence statement has been added: "Mitigation pathways are associated with significant institutional and economic feasibility challenges rather than technological and geophysical feasibility challenges (*medium confidence*)"

3	305	3.2.2: “The SSPs have now been quantified in terms of energy, land-use change, and emission pathways (Riahi et al. 2017)” has been replaced with: “The SSPs have now been quantified in terms of energy, land-use, and emission pathways (Riahi et al. 2017)”
3	306	3.2.4: "The scenarios originated from over 15 different model intercomparison projects, with very few scenarios originating from individual studies" has been replaced with: "The scenarios originated from over 15 different model intercomparison projects, with around one fifth originating from individual studies"
3	307	Table 3.1 Column headings Col 1: “Description” has been replaced with “Category”; Col 2: “Subset” has been replaced with “Description”
3	307	Table 3.1: Final row “C1, C2, C3: limit warming to 2°C (>67%) or lower” has been added
3	307	3.2.4: "In addition to the temperature classification, each scenario is assigned to one of the following policy categories: (P0) diagnostic scenarios – 100 of 1686 vetted scenarios; (P1) scenarios with no globally coordinated policy and either (P1a) no climate mitigation efforts – 119, (P1b) current national mitigation efforts – 59, (P1c) Nationally Determined Contributions (NDCs) – 110, or (P1d) other non-standard assumptions – 104; (P2) globally coordinated climate policies with immediate (i.e., before 2030) action – 73, (P2a) without any transfer of emission permits – 435, (P2b) with transfers – 70; or (P2c) with additional policy assumptions – 55; (P3) globally coordinated climate policies with delayed (i.e., from 2030 onwards or after 2030) action, preceded by (P3a) no mitigation commitment or current national policies – 7, (P3b) NDCs – 376, (P3c) NDCs and additional policies..." has been replaced with:

		"In addition to the temperature classification, each scenario is assigned to one of the following policy categories: (P0) diagnostic scenarios – 99 of 1686 vetted scenarios; (P1) scenarios with no globally coordinated policy (500) and either (P1a) no climate mitigation efforts – 124, (P1b) current national mitigation efforts – 59, (P1c) Nationally Determined Contributions (NDCs) – 160, or (P1d) other non-standard assumptions – 153; (P2) globally coordinated climate policies with immediate (i.e., before 2030) action (634) and either (P2a) without any transfer of emission permits – 435, (P2b) with transfers – 70; or (P2c) with additional policy assumptions – 55; (P3) globally coordinated climate policies with delayed (i.e., from 2030 onwards or after 2030) action (451), preceded by (P3a) no mitigation commitment or current national policies – 7, (P3b) NDCs – 426, (P3c) NDCs and additional policies..."
3	309	3.2.5: "The IMPs consist of pathways with: gradual strengthening of current policies (GS), extensive use of net negative emissions (Neg), renewables (Ren), low demand (LD), and shifting pathways (SP). Each of these pathways can be implemented with different levels of ambition." has been replaced with: 'The IMPs differ in terms of their focus, for example, placing greater emphasis on renewables (IMP-Ren), deployment of carbon dioxide removal that results in net negative global GHG emissions (IMP-Neg), and efficient resource use and shifts in consumption patterns, leading to low demand for resources, while ensuring a high level of services (IMP-LD). Other IMPs illustrate the implications of a less rapid introduction of mitigation measures followed by a subsequent gradual strengthening (IMP-GS), and how shifting global pathways towards sustainable development, including by reducing inequality, can lead to mitigation (IMP-SP)
3	310	Figure 3.5 caption: The following sentence has been added: "The Ren2.0 and Neg2.0 scenarios are alternative scenarios to the IMPs. These pathways are based on renewables and extensive use of negative emissions, respectively, but leading to temperature levels comparable to the C3 category and have sometimes been used for comparison."
3	312	Figure 3.7 title: "The residual fossil fuel and industry emissions, net land-use change, carbon dioxide removal (CDR), and non-CO_2 emissions (using AR6 GWP-100) for each of the seven illustrative pathways (IPs)." has been replaced with: "The residual fossil fuel and industry emissions, carbon dioxide removal (CDR) {LUC, DACCS, BECCS}, and non-CO_2 emissions (using AR6 GWP-100) for each of the seven illustrative pathways (IPs)."

3	320	Box 3.4: "The numbers can be found in Table 3.2 (330–710 GtCO2 for C1; 540–930 for C2; and 640–1160 for C3)." has been replaced with: "The numbers can be found in Table 3.2 (330–710 GtCO_2 for C1; 530–930 for C2; and 640–1160 for C3)."
3	327	Cross-Chapter Box 3: “Pathways following emissions levels projected from the implementation of NDCs announced prior to COP26 until 2030 would have to reach net zero CO_2 around 10 years earlier.” has been replaced with: “Pathways following emissions levels projected from the implementation of NDCs announced prior to COP26 until 2030 would have to reach net zero CO_2 around 5 years earlier.”
3	328	Cross-Chapter Box 3: "Global net zero GHG emissions measured in terms of GWP-100 are reached between 2095 and 2100 (2055–…)" has been replaced with: "Global net zero GHG emissions measured in terms of GWP-100 are reached between 2095 and 2100 (2050–…)"
3	327	Footnote 5: “A small fraction of pathways in the AR6 scenarios database that likely limit warming to 2°C (9%) or are as likely as not to limit warming to 2°C (14%)…” has been replaced with: “A small fraction of pathways in the AR6 scenarios database that limit warming to 2°C (7% for C3 and 14% for C4)…”

3	327	Footnote 8: "Pathways that follow emission levels projected from the implementation of NDCs announced prior to COP26 until 2030 and that still likely limit warming to 2°C reach net zero CO_2 emissions during 2065–2070 (2060–…) compared with 2075–2080 (2060–…)" has been replaced with: "Pathways that follow emission levels projected from the implementation of NDCs announced prior to COP26 until 2030 and that still limit warming to 2°C (>67%) reach net zero CO_2 emissions during 2065–2070 (2055-2090) compared with 2070-2075 (2055-...)"
3	332	Table 3.2, footnote b: "For a description of pathways categories see Box SPM.1" has been replaced with: "For a description of pathways categories see Box SPM.1 and Table 3.1"
3	351	3.5.2: "Modelled pathways that are consistent with NDCs announced prior to COP26 until 2030 and assume no increase in ambition thereafter have higher emissions, leading to a median global warming of 2.8°C [2.1-3.4°C] by 2100." has been replaced with: "Modelled pathways that are consistent with NDCs announced prior to COP26 until 2030 and assume no increase in ambition thereafter have lower emissions, leading to a median global warming of 2.8°C [2.1-3.4°C] by 2100."
3	354	3.5.2: "Scenarios following NDCs until 2030 show a much smaller reduction in fossil fuel use, only half of the growth in renewable energy use…" has been replaced with: "Scenarios following NDCs until 2030 show a much smaller reduction in fossil fuel use, a slower growth in renewable energy use…"

3	363	3.6.1.2: “By contrast, achieving equity without international markets would result in a large discrepancy in regional carbon prices, up to a factor (Bauer et al. 2020).” has been replaced with: “By contrast, achieving equity without international markets would result in a large discrepancy in regional carbon prices, up to a factor of 100 (Bauer et al. 2020).”
3	367	3.6.2: "However, emerging evidence suggests that, even without accounting for co-benefits of mitigation on other sustainable development dimensions (see section 3.6.3 for elements on co-benefits), global benefits of pathways likely to limit warming to 2°C outweigh global mitigation costs over the 21st century". has been replaced with: "However, emerging evidence suggests that, even without accounting for co-benefits of mitigation on other sustainable development dimensions (see section 3.6.3 for elements on co-benefits), global benefits of pathways that limit warming to 2°C outweigh global mitigation costs over the 21st century".
3	369	3.7.1: “(SDG 15 - ecosystem protection and water system)” has been replaced with: "(SDG 15 – life on land)”
3	379	3.8.1: “Other factors currently limiting the capacity to steer transitions at the necessary speed include the electoral-market orientation of politicians (Willis 2017), the status-quo orientation of senior public officials (Geden 2016), path dependencies created by ‘instrument constituencies’ (Béland and Howlett 2016), or the benefits of deliberate inconsistencies between talk, decisions and actions in climate policy (Rickards et al. 2014).” has been replaced with: “Other factors currently limiting the capacity to steer transitions at the necessary speed include the electoral-market orientation of politicians (Willis 2017), the status-quo orientation of senior public officials (Geden 2016), path dependencies created by

		‘instrument constituencies’ (Béland and Howlett 2016), or the impacts of deliberate inconsistencies between talk, decisions and actions in climate policy (Rickards et al. 2014).”
4	415	4.1: “Some early framing of development pathways was included in the Third Assessment Report (William R Moomaw et al. 2001)” has been replaced with: “Some early framing of development pathways was included in the Third Assessment Report (Banuri et al. 2001)”
4	424	Cross-Chapter Box 4 Figure 1: In the 2100 panel the p75 level for current policies has been set to 74.16 rather than 70
4	424	Cross-Chapter Box 4 Figure 1: A discrepancy in the lines between panel a and b in 2030 has been corrected
4	425	Cross -chapter Box 4 caption: “GHG emissions of NDCs are broadly consistent with 2030 emission levels of cost-effective long-term pathways staying below 2.5°C.” has been replaced with: “GHG emissions of NDCs are broadly consistent with 2030 emission levels of cost-effective long-term pathways staying below 2.5°C, (scenarios category C5, Table 3.2, Chapter 3).”
4	427	Table 4.4, Row 14, column 5: "Members to implement policies that will deliver substantial short-lived climate forcers (SLCP) reductions in the near to medium-term (i.e., by 2030) for HFCs and methane" has been replaced with: "Members to implement policies that will deliver substantial short-lived climate pollutants (SLCP) reductions in the near to medium-term (i.e., by 2030) for HFCs and methane"

4	435	4.2.5.1: "The European Union member states (EU-28) recently announced 2050 climate neutrality goal is explored by pathways that emphasise complete substitution of fossil fuels with electricity generated by low-carbon sources, particularly renewables; demand reductions through efficiency and conservation, and novel fuels and end-use technologies (Capros et al. 2019; Zappa et al. 22 2019; Louis et al. 2020; Duscha et al. 2019; Prognos Öko-Institut Wuppertal-Institut 2020)" has been replaced with: "The European Union member states (EU-28) recently announced 2050 climate neutrality goal is explored by pathways that emphasise complete substitution of fossil fuels with electricity generated by low-carbon sources, particularly renewables; demand reductions through efficiency and conservation, and novel fuels and end-use technologies (Prognos et al. 2020)."
4	474	Section 4.5: "The European Green Deal proposed in 2019 (European Commission 2019), including a UDF100 billion.." has been replaced with: "The European Green Deal proposed in 2019 (European Commission 2019), including a €100 billion.."
4	475	Figure 4.9 caption: "(Snell 2018; 3 Government of Canada 2019; Piggot et al. 2019; Harrison 2013; Government of Costa Rica 2019; Ng et al. 4 2016; van Asselt and Moerenhout 2018; European Union 2019, 2020; Galgóczi 2019; Finnish Government 5 2020; Commission on Growth Structural Change and Employment 2019; Ministry of Employment and Labour 6 Relations of Ghana 2018; Popp 2019; Galgóczi 2014; Adeoti et al. 2016; Gass and Echeverria 2017; Ministry of 7 Business Innovation & Employment New Zealand 2019; Mendoza 2014; Szpor, A. and Ziółkowska 2018; 8 Government of Scotland 2020; Bankwatch 2019; NPC (National Planning Commission) 2019; Strambo et al 2019; Thalmann 2004; White House 2016; Schweitzer, M. and Tonn 2003; International Labor Organization 1 2018; Mijn Cha et al. 2020)" has been replaced with: "(Schweitzer and Tonn 2003; Thalmann 2004; Harrison 2013; Galgóczi 2014; Mendoza 2014; Adeoti et al. 2016; Ng et al. 2016; Gass and Echeverria 2017; Snell 2018; ILO 2018; Ministry of Employment and Labour Relations of Ghana 2018; Szpor, A. and Ziółkowska 2018; van Asselt and Moerenhout 2018; Bankwatch 2019; Commission on Growth Structural Change and Employment 2019; European Union 2019, 2020; Galgóczi 2019; Government of Canada 2019; Government of Costa Rica 2019; NPC (National Planning

		Commission) 2019; Ministry of Business Innovation & Employment New Zealand 2019; Piggot et al. 2019; Popp 2019; Strambo et al. 2019; Government of Spain 2019; Finnish Government 2020; Scottish Government 2020; White House 2016; Mijn Cha et al. 2020)”
5	505	Executive Summary: "Other options with high mitigation potential include reducing air travel, cooling setpoint adjustments," has been replaced with: "Other options with high mitigation potential include reducing air travel, heating and cooling set-point adjustments,"
5	505	Executive Summary: "The indicative potential of demand-side strategies across all sectors to reduce emissions is 40-70% by 2050 (high confidence)." has been replaced with: "The indicative potential of demand-side strategies across all sectors to reduce emissions is 40-70% in end use sectors (industry, buildings, land, transport and food) by 2050 (*high confidence*)."
5	505	Executive Summary: "The indicative potential of demand-side strategies across all sectors to reduce emissions is 40-70% by 2050 (*high confidence*)." has been replaced with: "The indicative potential of demand-side strategies across all end use sectors to reduce emissions is 40-70% by 2050 (*high confidence*)."
5	517	Box 5.3: "comparing the situation between 2014 and 2018" has been replaced with: "comparing the situation between 2000 and 2018"
5	546	5.4:: "These five drivers of human behaviour either contribute to the status quo of a global high-carbon, consumption- and GDP growth-oriented economy or help generate the desired change to a low-carbon energy-services, well-being, and equity-oriented economy (Jackson 2016; Cassiers et al. 2018; Yuana et al. 2020)"

		has been replaced with: "These five drivers of human behaviour either contribute to the status quo of a global high-carbon, consumption- and GDP growth-oriented economy or help generate the desired change to a low-carbon energy-services, well-being, and equity-oriented economy (Jackson 2016; Cassiers et al. 2018; Yuana et al. 2020; Nielsen et al. 2021)"
5	559	5.4.5: "In the state of Himachal Pradesh of India, shift from LPG to electricity, with induction stove, has been successful due to…." has been replaced with: "In the state of Himachal Pradesh of India, shift from LPG to electricity among rural households, with induction stove, has been successful due to…."
5	565	Box 5.10: "Examples of informal-sector mitigation include digital banking in Africa; mobility in India using recycled motors and collective transport; food production, meal provision, and reduction of food waste in Latin America (e.g. soup kitchens in Brazil, community kitchens in Lima," has been replaced with: "Examples of informal-sector mitigation include digital banking in Africa; mobility in India using collective transport; food production, meal provision, and reduction of food waste in Latin America (e.g. soup kitchens in Brazil, community kitchens in Lima,"
5	566	Table 5.5, row 3, column 2: "Size of dwellings getting smaller" has been replaced with "Size of dwellings getting larger"
5	598	The following reference has been added: "Nielsen, K. S., K.A. Nicholas, F. Creutzig, T. Dietz, and P.C. Stern, 2021. "The role of high-socioeconomic-status people in locking in or rapidly reducing energy-driven greenhouse gas emissions." *Nature Energy* **6(11),** 1011-1016, doi:10.1038/s41560-021-00900-y."

6	618	Figure 6.1 caption: "Global energy flows within the 2019 global energy system (top panel) and within two illustrative future, net-zero CO_2 emissions global energy system (bottom panels). Source: IEA, AR6 Scenarios Database. Flows below 1 EJ are not represented. The illustrative net-zero scenarios correspond to the years in which net energy system CO_2 emissions reach zero – 2045 in IMP-Ren and 2060 in IMP-Neg-2.0. Source: data from IMP-Ren: Luderer et al.(2021); IMP-Neg-2.0: Riahi, K. et al. 2021." has been replaced with: "Global energy flows within the 2019 global energy system (top panel) and within two illustrative future, net-zero CO_2 emissions global energy systems (bottom panels). Source: IEA, AR6 Scenarios Database. Flows below 1 EJ are not represented. Agricultural energy and energy own use are included in industry. Captured methane is included in natural gas supply where appropriate. The illustrative net-zero scenarios correspond to the years in which net energy system CO_2 emissions reach zero – 2060 in IMP-Ren and 2070 in IMP-Neg-2.0. Source: data from IMP-Ren: Luderer et al.(2021); IMP-Neg-2.0: Riahi, K. et al. 2021."
6	622	Figure 6.5 caption: the following sentence has been added: "Primary energy in this figure is based on IEA accounting methods and not direct equivalents for several energy sources. Final energy does not include industry own use and losses."
6	647	Box 6.5: "That said, recent years have seen a decrease in fossil EROI, especially as underground coal mining has continued in China". has been replaced with: "That said, recent years have seen a decrease in fossil EROI, especially as underground coal mining still represents a substantial portion of global production."
6	686	Figure 6.27 title: "Net regional (R5)" has been replaced with: "Net regional (R6)"
6	689	Box 6.11: "limiting warming to 1.5°C" has been replaced with: "likely limiting warming to 2.0°C or below" .

6	698	6.7.4: "23-51" has been replaced with "24-51"
6	699	6.7.4: "66% to 98%" has been replaced with "65% to 98%" "21% to 61%" has been replaced with "21% to 62%" "-13% to 36%" has been replaced with "-14% to 36%"
6	699	Figure 6.35 has been replaced to match the accounting method for all relative change assessments in Section 6.7
6	700	6.7.4 "43" has been replaced with "73", "91" has been replaced with "145", "19% to 54%" has been replaced with "30% to 78%" "46" has been replaced with "26" "109" has been replaced with "86" "21% to 60%" has been replaced with"14% to 45%"
6	724	"OECD IEA NEA, 2020: Projected Costs of Generating Electricity 2015. Proj. Costs Gener. Electr. 2020, , OECD Library. doi:10.1787/cost_electricity-2015-en." Has been replaced with: "IEA, 2020j: Projected Costs of Generating Electricity 2020. Paris, France. https://www.iea.org/reports/projected-costs-of-generating-electricity-2020"
6	724	The following reference has been added: "IRENA, 2017c: Stranded assets and renewables: how the energy transition affects the value of energy reserves, buildings and capital stock. International Renewable Energy Agency, Abu Dhabi. www.irena.org/remap."
6	617	Figure 6.1, panel b: Has been replaced to reflect revised data.

6	618	Figure 6.1, panel c: Has been replaced to reflect revised data.
6	671	Figure 6.21 has been replaced
6	673	Figure 6.22 has been replaced
6	683	Figure 6.25 has been replaced
6	689	Box 11 Figure 1 has been replaced
6	690	Box 11 Figures 2 and 3 have been replaced
6	691	Box 11 Figure 4 has been replaced
6	701	6.7.6.1: “Similarly, a subsidy promoted the installation of solar water heaters in Asia (Chang et al. 2009).” has been replaced with: "Similarly, many programs have promoted the installation of lower-carbon household options such as heat pumps, district heating, or solar water heaters across Europe, the Asia-Pacific and Africa (Hu et al,. 2012; Sovacool and Martiskainen 2020; Ahmed et al. 2021)."
6	708	The following reference has been added: “Ahmed, S.F. et al., Recent progress in solar water heaters and solar collectors: A comprehensive review, 2021: *Thermal Science and Engineering Progress*, Volume 25, 100981”
6	723	The following reference has been added: “Hu R., Sun P., Wang Z., 2012: An overview of the development of solar water heater industry in China. *Energy policy*, 51: 46-51.”

6	740	The following reference has been added: "Sovacool, B.K . et al., 2020: Hot transformations: Governing rapid and deep household heating transitions in China, Denmark, Finland and the United Kingdom, *Energy Policy*, Volume 139, 111330"
7	757	Table 7.1 footnote f: " (which would become --7.2 $GtCO_2$ yr^{-1})" has been replaced by: "(which would become --7.0 $GtCO_2$ yr^{-1})"
7	774	7.4.1.1: "(CH_4 = 27…" has been replaced with "(CH_4 = 28…"
7	783	7.4.2.4: "In Australia, savanna burning emissions abatement methodologies have been available since 2012, and abatement has exceeded 4 $MtCO_2$-eq mainly through the management of low intensity early dry season fire (Lynch et al. 2018). Until August 2021, 78 were registered (Australian Government, Clean Energy Regulator, 2021)." has been replaced with: "In Australia, savanna burning emissions abatement methodologies have been available since 2012, and abatement has exceeded 9.3 $MtCO_2$-eq mainly through the management of low intensity early dry season fire. Until September 2021, 78 projects were registered (Australian Government, Clean Energy Regulator, 2021).
7	814	7.6.1: "Regulatory markets provide the next largest share of carbon removal to date. Data from the Australia Emissions Reduction Fund is an estimate of carbon credits in agriculture, and forestry purchased by the Australian government." has been replaced with: "Regulatory markets provide the next largest share of carbon removal to date. Data from the Australian Emissions Reduction Fund are carbon credits issued in for agricultural, and vegetation and savanna burning projects."

7	814	Table 7.4: Row 9 Column 2: “33.7” has been replaced with “42.7” Column 3: “2012-2018” has been replaced with “2012-19[h]” Column 4: “4.8” has been replaced with “6.1” Column 5: “50.5” has been replaced with “53.6”
7	814	Table 7.4: Footnote h has been added “Obtained 13/08/2020. All non-CO_2 gases are converted to CO_2-eq using IPCC GWP100 values recommended at the time the project achieved approval by the relevant organisation or agency.”
7	817	Box 7.8: “Summary of the case – Indigenous peoples include more than 5 000 different peoples, with over 370 million people, in 70 countries on five continents (UNIPP 2012). Forests cover more than 80% of the area occupied by indigenous peoples (330 million hectares) point to their critical for forest governance (Garnett et al. 2018; Fa et al. 2020).” has been replaced with: "Indigenous peoples include more than 5000 different peoples, with over 370 million people, in 70 countries on five continents (UNIPP 2012). For example, in Latin America and Caribbean, forests cover more than 80% of the area occupied by indigenous peoples (330 million hectares) (FAO and FILAC,2021) which points to their critical role for forest governance (Garnett et al. 2018; Fa et al. 2020)."
7	840	New reference has been added: FAO and FILAC. 2021. Forest governance by indigenous and tribal peoples. An opportunity for climate action in Latin America and the Caribbean. Santiago. FAO. https://doi.org/10.4060/cb2953en
8	908	8.4.5: “'The exclusion of consumption-based emissions and emissions that occur outside of city boundaries as a result of urban activities will lead to significant undercounting, to the effect of undercounting 41% of territorial emissions and 4% of global emissions annually, respectively (Wiedmann et al. 2021).”

		has been replaced with: “The exclusion of consumption-based emissions and emissions that occur outside of city boundaries as a result of urban activities, however, will lead to significant undercounting. For example, a study of 79 major cities found that about 41% of consumption-based carbon footprints (1.8 $GtCO_2$-eq of 4.4 $GtCO_2$-eq) occurred outside of city boundaries.”
8	921	8.6.1: "Only then can the urban form constraints on locational and mobility options be increased" has been replaced with: "Only then can the urban form constraints on locational and mobility options be effective at reducing transport-based emissions."
9	982	Figure 9.2: “Taiwan, China” has been replaced with: “Taiwan, Province of China”
9	984	Figure 9.14 has been replaced
10	1067	Table 10.5 footnote 'n' has been added: "Salman et al. (2017); Moreira et al. (2014); Roy et al. (2015); Handler et al. (2016)."
10	1113	10.8.1: "Bulawayo, the capital city of Zimbabwe,…" has been replaced with "Bulawayo, the second-largest city in Zimbabwe,…"
10	1117	Box 10.6 "shows that the trend over the past 30 years has been for the US to move from being self-sufficient in REEs to being 100% reliant on imports, predominantly from China, Japan, and France." has been replaced with: "Nassar et al. (2020) report that over the past 30 years the US has become increasingly reliant in imports to meet domestic demand for minerals, including REEs."

10	1136	New reference has been added: "Nassar, N.T., Alonso, E., and Brainard, J.L., 2020, Investigation of U.S. Foreign Reliance on Critical Minerals—U.S. Geological Survey Technical Input Document in Response to Executive Order No. 13953 Signed September 30, 2020 (Ver. 1.1, December 7, 2020): U.S. Geological Survey Open-File Report 2020–1127, 37 p., https://doi.org/10.3133/ofr20201127"
10	1148	Appendix 10.2: "Maintenance costs were assumed to be USD0.1/mile for ICEV buses and USD0.6/mile…" has been replaced with: "Maintenance costs were assumed to be USD0.63 per km for ICEV buses and USD0.38 per km…"
11	1175	Table 11.1, column 10 heading: "GtCO_2e " has been replaced with "MtCO_2e"
11	1197	Table 11.3, column 5: “EUROs” has been replaced with “USD” Column 5, row 9: “34–68 EUR/t & 40 EUR/MWh” has been replaced with: ”USD39-79 t^{-1} and USD46 MWh^{-1} “
11	1198	Table 11.3: Footnote d has been added: “Converted from EUR2018 34–68 t^{-1} and EUR2018 40 MWh^{-1}”
11	1204	Table 11.5: Row 7 has been added: Column 1: “CCS” Column 2: "5-34" Column 3: "0-31" Column 4: "0-57" Column 5: "29-79"

11	1204	Table 11.5, Column 4: Rows 2- 6 have been merged: “25-84”
11	1206	11.4.2.2: “For the three most important sub-sectors in industry Table 11.5 shows results from Material Economics (2019) for the EU. The combination of circularity, material and energy efficiency, fossil and waste fuels mix, electrification, hydrogen, and biomass use varies from scenario to scenario with no of these options ignored. On the contrary, for CCS the authors set a strong default - in all scenarios CCS is not included as a mitigation option. Scenario studies for Germany Samadi and Barthel (2020) support the Material Economics (2019) findings and show deep mitigation s and even net zero emissions can be reached without application of CCS and with limited contribution of synthetic carbon neutral fuels. In those scenarios there are large contributions from material efficiency, circular economy, material substitution as well as life-style changes. “ has been replaced with: "For four sub-sectors in industry with high emissions Table 11.5 shows results from Material Economics (2019) for the EU. The combination of circularity, material and energy efficiency, fossil and waste fuels mix, electrification, hydrogen, CCS and biomass use varies from scenario to scenario with none of these options ignored, but trade-offs are required. "
12	1245	Contributing authors: the following have been added: Inês M.L. Azevedo (Portugal/the United States of America) Stephanie Roe (the Philippines/The United States of America) Aleksandra Novikova (Germany) Sudarmanto Budi Nugroho (Indonesia)
12	1255	Table 12.3 Row 11, column 7: "Depending on the carbon intensity of the electricity supplied to the vehicles. Estimated potential is 0.5 $GtCO_2$-eq, mitigation costs are variable" has been replaced with: "Estimated potential is 0.5-0.7 $GtCO_2$-eq, depending on the carbon intensity of the electricity supplied to the vehicles. Mitigation costs are variable."

12	1255	Table 12.3 Row 15, column 7: "Estimated potential is 0.2 $GtCO_2$-eq. Mitigation costs are variable." has been added.
12	1256	Table 12.3 Row 6, column 6: “0.15” has been replaced by “0.15 (0.08-0.36)”
12	1258	Figure 12.1 caption: “The latter are given as box plots of global emissions reductions for each sector (blue and green) at different global carbon cost levels (horizontal axis) for 2030, based on all scenarios likely limiting warming to 2°C or lower (see Chapter 3) in the AR6 scenarios database (IIASA 2021).” has been replaced with: “Emission reductions calculated using IAMs are given as box plots of global emissions reductions for each sector (blue and green) at different global carbon cost levels (horizontal axis) for 2030, based on all scenarios likely limiting warming to 2°C or lower (see Chapter 3) in the AR6 scenarios database (IIASA 2021).”
12	1259	Figure 12.2 caption: “In both cases cost cut-offs at USD100 tCO_2^{-1} are applied” has been replaced with: “Cost cut-offs at USD100 tCO_2^{-1} are applied to both electricity production in 2030 as calculated by IAMs and electricity production potentials found in the sectoral analyses.”
12	1265	12.3: “(values are the medians and bracketed values denote the 5–95th percentile range)” has been replaced with: “(values are the medians and bracketed values denote the 5–95th percentile range[1])”

12	1265	12.3, Footnote 1 has been added: “Cumulative levels of CDR from AFOLU cannot be quantified precisely given that: (i) some pathways assess CDR deployment relative to a baseline; and (ii) different models use different reporting methodologies that in some cases combine gross emissions and removals in AFOLU. Total CDR from AFOLU equals or exceeds the net negative emissions mentioned”
12	1275	Table 12.6, row 5, column 1: "Blue carbon management in coastal wetlands" has been replaced with: "Blue carbon management in coastal ecosystems"
12	1275	Table 12.6 caption: “TRL = Technology Readiness Level.” has been replaced with: “Technology readiness level (TRL) is a measure of maturity of the CDR method. Scores range from 1 (basic principles defined) to 9 (proven in operational environment).”
12	1275	Table 12.6 Row 2, column 6: “Enhanced plant growth, reduced erosion, enhanced soil carbon, reduced pH, soil water retention.” has been replaced with: “Enhanced plant growth, reduced erosion, enhanced soil carbon, reduced soil acidity, enhanced soil water retention.”
12	1276	Table 12.6 Row 3, column 3: “45-100” has been replaced with “-45-100”
12	1284	Figure 12.7 has been replaced.
12	1304	12.5.4: "For example, hydropower and ground-based solar parks have involved enclosure of lands designated as degraded, displacing pastoral use by vulnerable communities, constituting forms of spatial injustice (Yenneti et al. 2016)." has been replaced with:

		"For example, Yenneti et al. (2016) have argued that hydropower and ground-based solar parks in India, which have involved enclosure of lands designated as degraded, displacing pastoral use by vulnerable communities, have constituted forms of spatial injustice."
12	1317	12.6.2: "An example is the integration between smart agriculture and low carbon energy (Antwi-Agyei et al. 2018;" has been replaced with: "An example is the integration between climate-smart agriculture and low-carbon energy (*robust evidence, high agreement*) (Antwi-Agyei et al. 2018; England et al. 2018).
13	1359	Executive Summary: "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 CO_2 emissions by 1–4%, and GHG emissions by up to 10% by 2030, varying across regions (medium confidence). {13.6}" has been replaced with: "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 especially on the most economically vulnerable groups which, in some cases can be mitigated by measures such as redistributing revenue saved, all of which depend on national circumstances (*high confidence*); fossil fuel subsidy removal is projected by various studies (using alternative methodologies) to reduce global CO_2 emissions by 1–4%, and GHG emissions by up to 10% by 2030, varying across regions (*medium confidence*). {6.3, 13.6}"
13	1362	Figure 13.1 Panel (a) , Global: The 2020 share for " climate legislation in force" was 53% and that for "no climate legislation" was 47%. This has been replaced by: "climate legislation in force" 52% ; "no climate legislation" 48%.

Technical Summary	126	Figure TS.25, Panel (a) , Global: The 2020 share for " climate legislation in force" was 53% and that for "no climate legislation" was 47%. This has been replaced by: "climate legislation in force" 52% ; "no climate legislation" 48%.
13	1379	13.5.1: "Further, as of October 2020, more than 826 cities and 103 regional governments had made specific pledges to decarbonise, whether in a specific sector (e.g., buildings, electricity, or transport) or through their entire economies, pledging to reduce their overall emissions by at least 80% or greater (NewClimate Institute and Data Driven EnviroLab 2020)." has been replaced with: "Further, as of October 2020, more than 826 cities and 103 regional governments had made specific pledges to decarbonise, whether in a specific sector (e.g., buildings, electricity, or transport) or through their entire economies, pledging to reduce their overall emissions by at least 80% (NewClimate Institute and Data Driven EnviroLab 2020)."
13	1379	13.5.1: "Examples include emission trading systems within the USA, such as the Regional Greenhouse Gas Initiative (RGGI) and Western Climate Initiative" has been replaced with: 'Examples include emission trading systems within North America, such as the Regional Greenhouse Gas Initiative (RGGI) and Western Climate Initiative (which also includes two Canadian provinces)"
13	1395	13.7: "Common to both approaches is an emphasis beyond the short term, and enabling longer-term structural shifts in economies and societies." has been replaced with:

		“Common to both approaches is an emphasis beyond the short term, and attention to enabling longer-term structural shifts in economies and societies.”
13	1399	Cross-Chapter Box 9,line 1, column 5: "Pushback from equity-focused social movements against 'premium' fares, cycling ban" has been replaced with: "Accommodating and addressing legitimate concerns from social movements about the exclusionary effects of 'premium' fares, cycling bans on busy roads"
14	1467	Figure 14.2 caption: “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)” has been replaced with: “pathways that limit warning to 1.5°C (>50%) with no or limited overshoot, and those to limit warming to 2°C (>67%).”
14	1474	Box 14.1: "This aim is explicitly linked to enhancing implementation of the UNFCCC, including its objective in Article 2 of stabilising greenhouse gas emissions..." has been replaced with "This aim is explicitly linked to enhancing implementation of the UNFCCC, including its objective in Article 2 of stabilising greenhouse gas concentrations..."
14	1475	14.3.3.1: “Chapter 2 of this report lists 24 countries that have sustained absolute emissions reductions for at least a decade, of which 20 are countries that had Kyoto targets for the first commitment period.” has been replaced with:

		"Chapter 2 of this report lists at least 18 countries that have sustained absolute emissions reductions for at least a decade, nearly all of which are countries that had Kyoto targets for the first commitment period.”
14	1478	14.3.3.2: "publics" has been replaced with: "public-sector organisations"
15	1564	15.3.2: “reaching a high-bound estimate of 681 billion USD in 2016 (UNFCCC 2018a).” has been replaced with: “reaching a high-bound estimate of 681 billion USD in 2016 (UNFCCC 2018a), representing USD674 billion 2015.”
15	1572	15.4.2 “In Latin America the report identifies Brazil as frontrunner of required rail investments with 8.3 billion USD, followed by Peru with 2.3 billion USD. Totally, developed countries mounting up to 117 billion USD yr-1 (n=14, mean=8.35bn USD) for rail infrastructure funding needs, succeeded by developing countries (excl. LDCs) with 26 billion USD yr-1 (n=28, mean=0.93bn USD, excluding China).” has been replaced with: “In Latin America Oxford Economics (2017) identifies Brazil as frontrunner of required rail investments with 8.3 billion USD, followed by Peru with 2.3 billion USD. In total, developed countries’ financing needs mount up to almost 120 billion USD yr^{-1} (n=15, mean=7.97bn USD) for rail infrastructure. Financing needs in developing countries (excluding LDCs and excluding China) mount up to almost 50 billion USD yr^{-1} (n=27, mean=1.78bn USD, excluding China).”
15	1574	15.5.1: “They comprise short-termism (e.g. (UNEP Inquiry 2016b)), high perceived risks for mitigation relevant technologies and/or regions (information gap through incomplete/ asymmetric information, e.g. (Clark et al. 2018))…” has been replaced with: “They comprise short-termism (e.g. UNEP Inquiry 2016b), high perceived risks for mitigation relevant technologies and/or regions (information gap through incomplete/ asymmetric information (Kempa and Moslener 2017; Clark et al. 2018))…”

15	1574	15.4.2: “UNEP 2016 Adaptation Gap Report estimates adaptation financing needs amounting to 140–300 billion USD yr-1 by 2030 and 280–500 billion USD yr-1 by 2050 (UNEP 2016, 2018, 2021).” has been replaced with: “UNEP 2020 Adaptation Gap Report estimates adaptation costs amounting to 140–300 billion USD yr^{-1} in 2030 and 280–500 billion USD yr^{-1} in 2050 (UNEP 2021).”
15	1575 on	Throughout 15.5.2:: “funding” has been replaced with: “finance”
15	1576	15.5.2: “While CPI publishes investment levels of 44 billion in 2019 and 26 billion in 2020) for energy efficiency, counting majorly international flows, IEA results come in at a much higher level of more than annually 250bn USD between 2017 and 2020 (IEA 2021c) “ has been replaced with: “While CPI publishes investment levels of 41 billion USD2015 in 2019 and 24 billion USD2015 in 2020) for energy efficiency, counting majorly international flows, IEA results come in at a much higher level of around annually 250 billion USD2015 between 2017 and 2020 (IEA 2021c)”
15	1582	15.6.1: “(Keenan and Bradt 2020), but transfer to taxpayers the onus of damage compensation and the funding” has been replaced with: “(Keenan and Bradt 2020), but transfer to taxpayers the onus of damage compensation and the financing”

15	1582	15.6.1: “In this context, a delayed deployment of climate funding” has been replaced with: “In this context, a delayed deployment of climate finance”
15	1596	15.6.4: "Entities such as the UK Anti-Corruption Help desk” has been replaced with: "Entities such as the U4 Anti-Corruption Help desk”
15	1596	15.6.4: “The FCDO study examines the uptake of ARC” has been replaced with: “The FCDO study (Scott 2017) examines the uptake of ARC”
15	1634	Reference has been added: “Scott, Z., C. Simon, J. McConnell, P.S. Villanueva, 2017: Independent Evaluation of African Risk Capacity (ARC) Final Inception Report. Commissioned by FCDO (ex DFID) and undertaken by Oxford Policy Management, Oxford, UK, 85 pp.”
16	1658	Box 16.1: “does not differ much between the two scenarios (Box 16.1, Figure 1a)” has been replaced with: “does not differ much between the two sets of scenarios (Box 16.1, Figure 1a)”
17	1751	17.3.3.2: This sentence has been deleted: "(Fan et al. 2019b) specifically, SDGs 2 (foodzero hunger), SDG 6 (clean water and sanitation), SDG (7) (affordable and clean energy),

		SDG 11 (sustainable cities and communities) and SDG 12 (responsible production and consumption) are considered essential to the WEFN (Bleischwitz et al. 2018)."
17	1760	17.3.3.6: This sentence has been deleted: “The energy system will include microgrids, renewable with demand-side controls aligned with local conditions."
Annex I	1810	Particulate matter (PM): “Very small solid particles emitted during the combustion of *biomass* and *fossil fuels*. PM may consist of a wide variety of substances. Of greatest concern for health are particulates of diameter less than or equal to 10 nanometers, usually designated as PM10.2 has been replaced with: “Atmospheric aerosols involved in air pollution issues. Of greatest concern for health are particles of aerodynamic diameter less than or equal to 10 micrometers, usually designated as PM10 and particles of diameter less than or equal to 2.5 micrometers, usually designated as PM2.5.”
Annex I	1812	Risk management: Cross-reference to “Risk transfer” has been removed
Annex I	1812	Risk perception: Cross-reference to ”Risk transfer” has been removed
Annex I	1816	Urban Systems: Cross-reference to ”Urban areas” has been removed
Annex I	1816	Urbanisation: Cross-reference to ”Urban areas” has been removed

Annex III	1850	A.III.I.4.3: “In total, 931 scenarios were submitted to the AR6 scenario database, out of which only two scenarios provided detailed data allowing for an assessment of climate change impacts based on the SER framework considered in the building chapter.” has been replaced with: "In total, 931 scenarios were submitted to the AR6 scenario database, out of which only two scenarios provided detailed data allowing for an assessment of emissions reductions based on the SER framework considered in the building chapter.”
Annex III	1850	Figure 2(a) title: “‘GHG mitigation potentials of scenarios considered in the illustrative mitigation pathways considered in Chapter 3.” has been replaced with: “GHG emissions reductions in the building sector (direct emissions) in scenarios considered as illustrative mitigation pathways in Chapter 3.”
Annex III	1873	Footnote 7: “Tier 2 variants include SSP7-3.0 with low emissions of short–lived climate forcers…” has been replaced with: “Tier 2 variants include SSP7-3.0 with high emissions of short–lived climate forcers…”
Annex III	1874	A.III.I.9.1: "In early model intercomparisons, climate targets were often specified as a CO_2- equivalent concentration level that could not be crossed, for example, 450ppm CO_2-eq or 550ppm CO_2-eq (Clarke et al. 2009). " has been replaced with: "In early model intercomparisons, climate targets were often specified as a CO_2- equivalent concentration level, for example, 450ppm CO_2-eq or 550ppm CO_2-eq (Clarke et al. 2009). "

Annex III	1878	Table 9, Column 5, row 3: "CDR, transport H_2/Electric based on negative emissions" has been replaced with: “Heavy reliance on CDR in power sector and industry; CDR used to compensate fossil fuel emissions”
Annex III	1880	A.III.II.2.5.1: "MAGICC (v7) was used for the main scenario classification, with both FaIR (v1.6.2) and CICERO-SCM (v2019vCH4) being used to provide additional uncertainty ranges…" has been replaced with: "MAGICC (v7) was used for the main scenario classification, with FaIR (v1.6.2) being used to provide additional uncertainty ranges..."
Annex III	1886	A.III.II.3.2.1: "Of the total 2425 global scenarios submitted, 1594 could be assessed in terms of their associated climate response, and 1202 of those passed the vetting process." has been replaced with: "Of the total 2266 global scenarios submitted, 1574 could be assessed in terms of their associated climate response, and 1202 of those passed the vetting process."
Annex III	1887	Table 15, final column, "Total with climate categorisation": AIM/CGE+Hub: “55 (162)” has been replaced with: “55 (155)” DNE21+: “-(46)” has been replaced with: -(36) GCAM: “45 (136)” has been replaced with: “45 (73)” GCAM-PR: “3(21)” has been replaced with: “3 (7)” GEM-E3: “41 (52)” has been replaced with: “41 (41)” IMAGE: “142 (153)” has been replaced with: “142 (151)” MESSAGE: “- (10)” has been replaced with: “- (9)” POLES: “114 (18)” has been replaced with: “114 (137)”

		TIAM-ECN: "45 (58)" has been replaced with: "45 (45)" IAM WORLD: "- (11)" has been replaced with: "- (9) " Total: "1202 (1698)" has been replaced with: "1202 (1574)"
Errata Processed during the AR7 Cycle		
Technical Summary	59	**Figure TS.2**, last line of caption: Delete ", Figure TS.2"
Technical Summary	60	**Box TS.1**, second paragraph, line 3: Replace "(1.9-2.4%)" with "(1.9-2.4)"
Technical Summary	64	**Figure TS.5**, caption: Captions (a) and (b) should be switched so that they refer to the correct panels.
Technical Summary	66	Footnote 12, second line: Replace "(5.2.2,5.2.2, Box 5.3)" with (5.2.2, Box 5.3)
Technical Summary	96	**Figure TS.13**, title, second line: Replace footnote 21 with footnote 22.
Technical Summary	96	Footnote 22: Replace "These scenarios have been assessed by WGI to correspond to intermediate, high and very low GHG emissions" With "These scenarios have been assessed by WGI to correspond to very low and intermediate GHG emissions".
Technical Summary	105	**Figure TS.17**, panel (d), X-axis of chart on the right: Replace "Circlularity" with "Circularity"

Technical Summary	118	**Figure TS.20**, grey box at the top, second line: Replace “reduce emissions and access” with “reduce emissions and improve access”
Technical Summary	119	**Figure TS.21**, caption, last two lines: Replace “Figure SPM.7 covers potential of demand-side options for the year 2050. Figure SPM.8 covers both supply- and demand-side options and their potentials for the year 2030.” With “Figure TS.21 covers potential of demand-side options for the year 2050. Figure TS.23 covers both supply- and demand-side options and their potentials for the year 2030.”
3	344	The reporting of primary energy for biomass and fossil fuels of the IMP-Neg in Figure 3.16 does not differentiate between the use of these carriers with and without CCS. Hence, bars without CCS include the total primary energy use of biomass and fossil fuels (with and without CCS). The updated caption should include an additional sentence: “The reporting of primary energy of the IMP-Neg pathway does not differentiate between the use of energy carriers with and without CCS. Hence, bars without CCS for biomass and fossil fuels include the total primary energy use of these carriers (with and without CCS), and the bars without CCS for this scenario are not shown.”
12	1270	The title of the Ocean Alkalinity Enhancement section has a typographical error: "Aaklinity" should be "Alkalinity"