

**FORTY-FIFTH SESSION OF THE IPCC**  
**Guadalajara, Mexico, 28 - 31 March 2017**

Corrigendum (4.IV.2017)  
Agenda Item: 6.2  
ENGLISH ONLY

**DECISION**

**SIXTH ASSESSMENT REPORT (AR6) PRODUCTS**

**Decision and Outline of the Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**

**As Adopted by the Panel at the 45<sup>th</sup> Session of the IPCC**

**Disclaimer**  
**Posted as adopted subject to copy editing**

The Intergovernmental Panel on Climate Change decides:

1. to agree to the outline of Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems as contained in Annex 1 to this document.
2. that this report assesses literature relevant to climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, especially since the Fifth Assessment Report (AR5), consistent with the IPCC guidance on the use of literature;
3. That the bulleted text in Annex 1 to this Decision, that resulted from the scoping process and refined through comments by the Plenary, be considered by authors as indicative.
4. That the time schedule for the production of the Special Report is as follows:
  - a call for nominations of Coordinating Lead Authors (CLAs), Lead Authors (LAs) and Review Editors (REs) will be issued after the 45th Session of the IPCC in March 2017.
  - approval and acceptance of the Special Report is planned for the Session of the IPCC in September 2019.
  - in order to achieve this, the timetable for the Special Report is as follows:

Call for author nominations	10 April – 21 May 2017
Selection of authors	9 July 2017
1 <sup>st</sup> Lead Author Meeting	16 - 20 October 2017
2 <sup>nd</sup> Lead Author Meeting	26 – 30 March 2018
First Order Draft Expert Review	4 June – 22 July 2018
3 <sup>rd</sup> Lead Author Meeting	3 - 7 September 2018
Second Order Draft Expert and Government Review	29 October - 23 December 2018
4th Lead Author Meeting	11 - 15 February 2019
Final Government Review of Summary for Policymakers (SPM)	22 April – 16 June 2019
IPCC acceptance/adoption/approval	2 - 8 September 2019

5. that the budget for the production of the Special Report is as contained in Decision (IPCC/XLV-3) on the IPCC Trust Fund Programme and Budget.

**Proposed outline of the special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**

**Title:** Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems

**List of Contents**

- Front matter (2 pages)
- Summary for Policy Makers (~10 pages)
- Technical Summary (consisting of chapter executive summaries with figures) (~20-30 pages)
- Chapter 1: Framing and Context (~15 pages)
- Chapter 2: Land-Climate Interactions (~50 pages)
- Chapter 3: Desertification (~35-40 pages)
- Chapter 4: Land Degradation (~40 pages)
- Chapter 5: Food Security (~50 pages)
- Chapter 6: Interlinkages between desertification, land degradation, food security and GHG fluxes: Synergies, trade-offs and Integrated Response Options (~40 pages)
- Chapter 7: Risk management and decision making in relation to sustainable development (~40 pages)
- Boxes, Case Studies and FAQs (~up to 20 pages)
- Total: up to 330 pages

**Chapter 1: Framing and Context (~15 pages)**

- Socio-economic, biogeochemical, and biophysical interactions between climate change and desertification, land degradation, food security and GHG fluxes
- Additional and alternative demands for, and use of, land in the context of climate change, as well as socioeconomic and technological changes.
- The contribution of this report in relation to reports by IPCC and other relevant institutions (for instance IPBES, UNCCD, FAO, etc.)
- Key concepts and definitions including vulnerability assessments, adaptation limits, and residual risks
- Treatment of uncertainties
- Integrated storyline of report, chapter narrative, sequence, linkages

**Chapter 2: Land–Climate interactions (~50 pages)**

- Climate change and variability, including extremes, that influence desertification, land degradation, food security, sustainable land management and GHG fluxes in terrestrial ecosystems
- Terrestrial GHG fluxes in natural and managed ecosystems (e.g. soils, forests and other land cover types) and related stocks: methods, status, trends, projections, and drivers
- Biophysical and non-GHG feedbacks and forcings on climate
- Consequences for the climate system of land-based adaptation and mitigation options, including negative emissions

### **Chapter 3: Desertification (~35-40 pages)**

- The specific nature of desertification
- Status, current trends and future projections of desertification linked to climate change, globally and regionally
- Climatic and anthropogenic direct and indirect drivers of desertification including extremes such as drought
- Attribution: distinguishing between climatic- and human-induced changes
- Desertification feedbacks to climate, including sand and dust storms
- Climate-desertification interactions, including past observations and future projections
- Observed and projected impacts of desertification on natural and human systems in a changing climate. This could include the role of aerosols and dust, impacts on ecosystem services (e.g. water, soil and soil carbon and biodiversity) and impacts on socio-ecological systems (e.g. impacts on vulnerable communities, poverty, food security, livelihoods, and migration).
- Technological, socio-economic and policy responses to desertification under a changing climate including economic diversification, enabling conditions, co-benefits as well as limits to adaptation
- Hotspots and case-studies

### **Chapter 4: Land Degradation (~40 pages)**

- Processes that lead to degradation and their biophysical, socio-economic, and cultural drivers across multiple temporal and spatial scales
- Linkages and feedbacks between land degradation and climate change, including extremes (e.g. floods and droughts), erosion, and their effects on ecosystems and livelihoods
- Status, current trends and future projections of land degradation linked to climate change, globally and regionally
- Attribution: distinguishing between climatic- and human-induced changes
- Direct and indirect impacts of Climate Change on Land Degradation, Land Degradation on Climate Change, and reactive and proactive response options, such as land restoration, for key socio-ecological systems
- Observed and projected impacts of land degradation on natural and human systems in a changing climate. This could include impacts on ecosystem services (e.g. water, soil and soil carbon, biodiversity) and impacts on socio-ecological systems (for example, impacts on vulnerable communities, poverty, food security, livelihoods, and migration).
- Integrated higher-level responses, e.g. sustainable land management (where possible related to the SDGs), including considerations of cost, incentives and barriers and limits to adaptation
- Hotspots and case-studies

### **Chapter 5: Food Security (~50 pages)**

- Framing and Context: food and nutrition security (availability, access, utilization, stability, affordability), food systems (including trade and markets), farming systems including agroforestry, food-energy-water nexus, and the role of desertification and land degradation.
- Status, current trends and future projections of food and nutrition security linked to climate change, globally and regionally
- Attribution: distinguishing between climatic- and human-induced changes
- Observed and projected impacts of climate change and variability, including extremes, on food and nutrition security, including food production, prices and livelihoods
- Impacts of food and nutrition security on climate change
- Responses in terms of adaptation considering the full range of options and their use, as well as limits to adaptation
- GHG mitigation options associated with food supply and demand
- The influence of land based mitigation options on food and nutritional security
- Synergies and trade-offs between adaptation and mitigation (considering scales, linkages, and co-benefits), sustainable land management
- Consequences of measures to enhance food and nutrition security for adaptation and mitigation in a changing climate
- Hotspots and case-studies

### **Chapter 6: Interlinkages between desertification, land degradation, food security and GHG fluxes: synergies, trade-offs and integrated response options (~40 pages)**

- Combined and interactive effects between desertification, land degradation, food security and GHG fluxes, and scenarios
- Economic and social dimensions of response options including sustainable land management: synergies/trade-offs/side-effects/co-benefits
- Impacts of land-based mitigation options on land degradation, desertification, food security, and ecosystems and their services (e.g. soil, fresh water, biodiversity)
- Impacts of land-based adaptation options on land degradation, desertification, food security, ecosystems and their services and limits to adaptation
- Land-based negative emissions (including the role of forests, soils and the use of biomass) and their role in balancing anthropogenic sources and sinks
- Adaptation-mitigation interactions and co-benefits
- Competition for land
- Case-studies

### **Chapter 7: Risk management and decision making in relation to sustainable development (~40 pages)**

- Risks arising from interaction of climate change with desertification, land degradation, food security and other development pressures (.e.g. conflicts, migration)
- Management responses to areas of substantive risk arising from climate change
- Synergies and trade-offs of response options that affect sustainable development and climate change adaptation and mitigation
- Governance, institutions and decision-making across multiple scales that advance adaptation, mitigation and sustainable land management in the context of desertification, land degradation and food security