IPCC AR6: Marco General y Capítulo 5: Food Fiber and other Ecosystem Products

Francisco J. Meza Profesor Titular

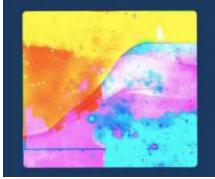






Global Warming of 1.5°C

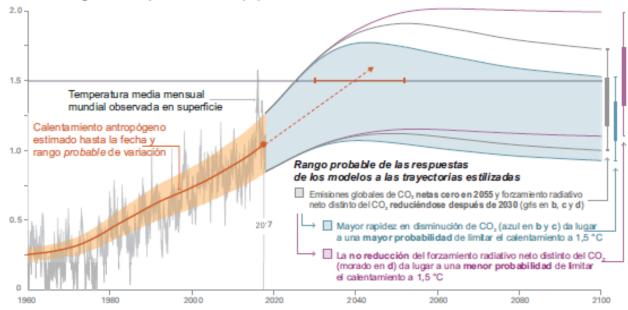
An IPCC special report on the impacts of global warning of 1.5% towarps, estimated levels and initiated global generations gas intraction pethodys. The control of strengthening the global suppress to the theorie of climate change, specializable development, and efforts to englished powerty.



Las emisiones de CO₂ acumuladas y el forzamiento radiativo futuro distinto del CO₂ determinan la probabilidad de limitar el calentamiento a 1,5 °C¹

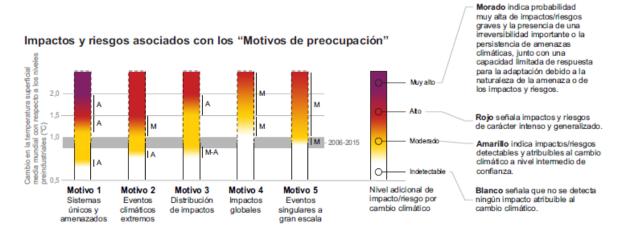
 a) Cambio en la temperatura global observada y respuestas de los modelos a las trayectorias estilizadas de emisión y forzamiento antropógenos

Calentamiento global con respecto a 1850-1900 (°C)

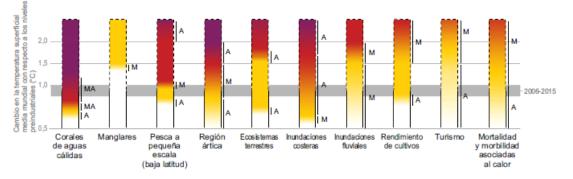


Cómo afectan los niveles de calentamiento global a los impactos y/o riesgos asociados con los "Motivos de preocupación" y los sistemas naturales, gestionados y humanos seleccionados

Cinco "Motivos de preocupación" ilustran los impactos y riesgos de los diferentes niveles de calentamiento global para las personas, la economía y los ecosistemas en distintos sectores y regiones.



Impactos y riesgos asociados con los sistemas naturales, gestionados y humanos seleccionados



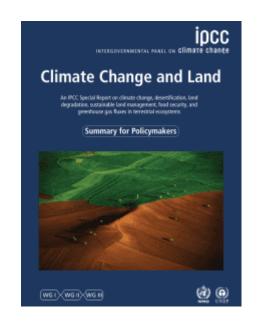
Nivel de confianza para transiciones: L=bajo, M=medio, A=alto y MA=muy alto Fuente: Traducido de "IPCC Special Report on Global Warming of 1.5 °C"

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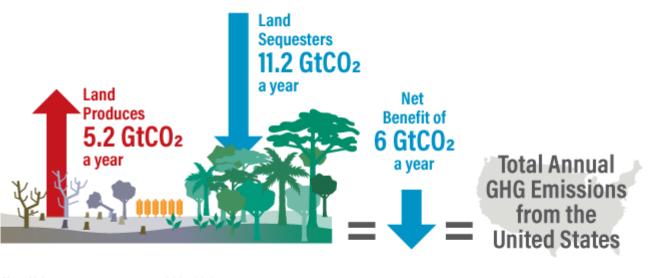
Global Warming of 1.5°C

An IPCE special report on the impacts of global warning of 1.5% towarps estimated levels and related global generations gas remained pathways, for carterial strengthening the global sequence to the thesis of clinical charge systematic development, and efforts to evaluate powerty.





Land is Both a Powerful Sink and Emitter of Carbon Dioxide Emissions



Note: Values are an average over 2007–2016 Source: IPCC Special Report on Climate Change and Land

🔆 WORLD RESOURCES INSTITUTE

Mitigation	Adaptation	Co-benefits						
		Livelihoods, biodiversity						
		Livelihoods, biodiversity						
		Livelihoods, water						
		Livelihoods						
		Livelihoods, pollution						
		Livelihoods, biodiversity						
		Livelihoods, biodiversity						
		Livelihoods						
		Livelihoods, biodiversity						
		Livelihoods, biodiversity						
		Livelihoods, biodiversity						
		Livelihoods, biodiversity						
		Biodiversity						
		Livelihoods, biodiversity						
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		Livelihoods						
		Livelihoods						
		Livelihoods, biodiversity						
		Livelihoods, energy						
		Livelihoods, biodiversity						
		Livelihoods						
		Livelihoods						
		Livelihoods						
		Livelihoods						
		Livelihoods						
		Livelihoods, energy						
		Livelihoods						
		Livelihoods						
		Energy						
		Livelihoods						
		Livelihoods, biodiversity						
		Livelihoods, energy						
		Health						
		Water, energy						
		Pollution						
		Livelihoods, energy						
		Health, energy, water						

Increased soil organic matter content Change in crop variety Improved water management Adjustment of planting dates Precision fertilizer management Integrated pest management Counter-season crop production **Biochar application** Agroforestry Changing monoculture to crop diversification Changes in cropping area, land rehabilitation (enclosures, afforestation), perennial farming Tillage and crop establishment Residue management Crop-livestock systems Silvopastoral systems New livestock breeds Livestock fattening Shifting to small ruminants or drought-resistant livestock or fish farming Feed and fodder banks Methane inhibitors Thermal stress control Seasonal feed supplementation Improved animal health and parasite control Early warning systems Planning and prediction for seasonal-to-intraseasonal climate risk Crop and livestock insurance Food storage infrastructure Shortening supply chains Improved food transport and distribution Improved efficieffincy and sustainability of food processing, retail and agrifood industries Improved energy efficiencies of agriculture Reduced food loss Urban and peri-urban agriculture Bioenergy (for example, energy from waste) Dietary changes Reduced food waste Packaging reductions New ways of marketing (for example, direct sales) Transparency of food chains and external costs

Food system responses

Sexto Informe del IPCC



Summary for Policymakers

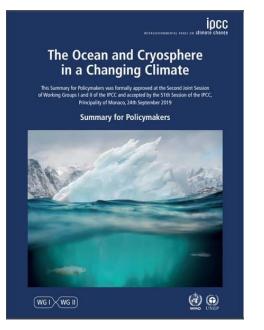


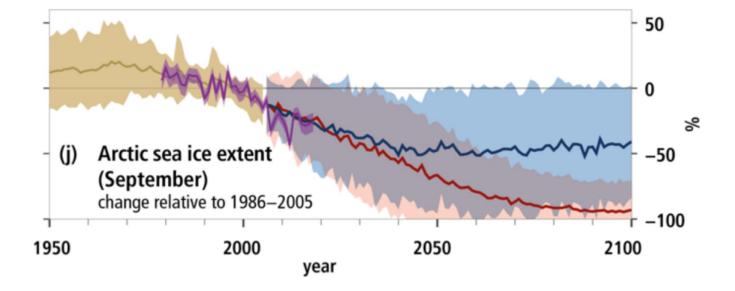
Mitigation and None adaptation potential

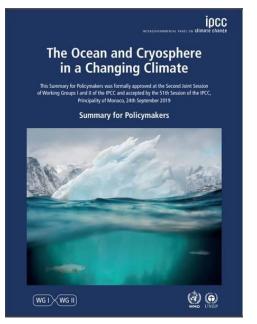
High

Very high

Limited







	0	cean	Arctic	EBUS 1	North Atlantic	North Pacific	South Atlantic	South Pacific	Southern Ocean	Temperate Indian Ocean	Tropical Atlantic	Tropical Indian Ocean	Tropical Pacific	LEGEND	
Gases		Temperature					00		00					Physical	changes
	77 27	Oxygen		•	•	•	•		•		•		•		crease
	Physical changes	Ocean pH	000					000	000				000	"	riease
	문문	Sea ice extent												d	ecrease
		Sea level	•						00					ir ir	ecrease and
		Upper water column		•					00						euense
		Coral									000		000	Systems	
	-	Coastal wetlands	-								00				ositive
	tem	Kelp forest			00										0.000
climate Change	Ecosystems	Rocky shores												n	egative
	3	Deep sea		-										- 🔽 P	ositive and
		Polar benthos				-									egative
		Sea ice-associated											<u> </u>		
	_	=							_			_			ssessment
3	Human systems and ecosystem services	Fisheries	00	•	000	•	•	•	•	•		•	•		
	ST 2	Tourism		•		•		•	•	•	•		٠	Attribut	
	n si	Habitat services		•	00	88	•	00	•					confider	
	1 sy	Transportation/shipping												eee h	
	and	Cultural services			•	•	-	•				-			nedium
	로의	Coastal carbon sequestration					•	•		•	•		•	• 10	W
Eastern Boundary Upwelling Systems (Benguela Current, Canary Current, California Current, and Humboldt Current); (Box 5.3) High mountain and Himalaya, Tibetan Plateau nolar, land regions Arctic															
ē		5	High Mounta Asia ²	in Lati- tudes ³	Southern Andes	New Zealand	Canada and USA	Alps and Pyrenees	Caucasus	Scandi- navia	Iceland	Russian Arctic	Alaska ⁵	Canada and Greenland	Antarctica
٠	-	Water availability			00		000			00	00				
	- 2	Flood	•					•	•	-					
	Physical changes	Landslide	•			•	•			•	•				
	문문	Avalanche	•						•						
		Ground subsidence											••	00	
nere Change	2	Tundra													•
	ten	Forest	00				00						00	00	-
	Ecosystems	Lakes/ponds													
	Ecc	Rivers/streams			•				-		•		•	•	
а.			-												

Tourism

Agriculture

Infrastructure

Migration ⁴

Cultural services

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an systems ecosystem

> ² includes Hindu Kush, Karakoram, Hengduan Shan, and Tien Shan; ³ tropical Andes, Mexico, eastern Africa, and Indonesia; ⁴ Includes Finland, Norway, and Sweden; ⁶ Includes adjacent areas in Yukon Territory and British Columbia, Canada; ⁶ Migration refers to an increase or decrease in net migration, not to beneficial/adverse value.

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2020



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2019

COVID-19

pandemic

1. Point of departure and key concepts

SECTION 1: Risks, adaptation and sustainability for systems impacted by climate change

- 2. Terrestrial and freshwater ecosystems and their services
- 3. Ocean and coastal ecosystems and their services
- 4. Water
- 5. Food, fibre, and other ecosystem products
- 6. Cities, settlements and key infrastructure
- 7. Health, wellbeing and the changing structure of communities
- 8. Poverty, livelihoods and sustainable development

SECTION 2: Regions 9. Africa 10. Asia 11. Australasia 12. Central and South America 13. Europe 14. North America 15. Small Islands

CROSS CHAPTER PAPERS Biodiversity Hotspots Cities and Settlements by the sea Deserts, semi arid areas and desertification Mediterranean region Mountains Polar Regions Tropical Forests

SECTION 3: Sustainable development pathways: integrating adaptation and mitigation

- 16: Key risks across sectors and regions
- 17: Decision-making options for managing risk
- 18: Climate resilient development pathways

Chapter 5

• Climate-driven historical changes in agriculture, fisheries and forestry, detection and attribution of impacts, including impacts of adaptation and mitigation responses, considering key findings of other reports • Current and projected risks for food and nutrition security, food systems on land and in the ocean, and the food-energy-water-health nexus • Current and projected risks for wood, fibre and natural products, such as medicinal organisms, rubber and dyes • Adaptation options for the production and use of food, fibre, and other ecosystem products across scales and regions including limits and barriers, knowledge systems and aspects of sustainable development • Competition for the use of land and ocean, including conflicts with indigenous rights to land and water bodies, and other tradeoffs in the context of adaptation and mitigation responses

Comentarios

Desafío de aportar más allá del SRCCLand

Enfasis en Seguridad Alimentaria

Incorporación de Nexo Agua-Energía-Alimentos

Límites de Adaptación