

- Meine Bibliothek
- Meine Publikationen
- Eintragsdubletten
- Einträge ohne Sam...
- Papierkorb
- Gruppen Bibliotheken
- Unsere Beste Gruppe
- Eintragsdubletten

Neuer Ordner und Übersicht

Neue Einträge erstellen



Volltextsuche hinter Pfeil nach unten versteckt



Titel	Ersteller
> Climate change impacts on plant pathogens, food security and paths forward	Singh et al.
> Paris Agreement climate proposals need a boost to keep warming well below 2 °C	Rogelj et al.
> The next generation of scenarios for climate change research and assessment	Moss et al.
> Titel	Mustermann

Zeigt ob PDF-Dokument vorhanden ist

Metadaten eines Eintrags bearbeiten

The next generation of scenarios for climate change research and assessment

Infos

Eintragsart Zeitschriftenartikel

Titel The next generation of scenarios for climate change research and assessment

Autor Moss, Richard H.

Autor Edmonds, Jae A.

Autor Hibbard, Kathy A.

Autor Manning, Martin R.

Autor Rose, Steven K.

14 mehr...

Publikation Nature

Band 463

Ausgabe 7282

Seiten 747-756

Datum 2010-02

Reihe

Titel der Reihe

Reihe Text

Zeitschriften-Abkürzung

Sprache en

DOI 10.1038/nature088...

ISSN 1476-4687

Kurztitel

URL https://www.natur ...

Heruntergeladen am 24.6.2024, 07:59:36

Archiv

Standort im Archiv

Bibliothekskatalog www.nature.com

Signatur

Rechte 2010 Macmillan Pu ...

Extra Publisher: Nature Publishing Group

Hinzugefügt am 24.6.2024, 07:59:36

Geändert am 24.6.2024, 07:59:36

- Climate and Earth system m...
  - Climate change
  - Climate-change mitigation
  - Economics
  - Environmental economics
  - Microbiome Pathogens
  - Plant sciences
- Tags filtern

Seite 750

As a result, an increasing number of scenarios are being developed to explore conditions consistent with...

Seite 750

Linke Sidebar:  
Übersicht Seiten,  
Abschnitte,  
Anmerkungen

Energy Agency<sup>33</sup> and the Millennium Ecosystem Assessment<sup>34</sup>) or have played a substantial role in shaping the scenario development process (the Energy Modelling Forum). Overviews of scenario development in climate change research are available<sup>32,35,36</sup> (see also timeline in Fig. 1).

**Motivations for new scenarios**

Although the previous IPCC scenario development process was iterative, new scenarios and a new process are being developed.

**Box 1 | Models and frameworks**

Scenarios are generated and used within analytic frameworks in climate change research. These frameworks include models, climate models, and models that assess impacts, adaptation and vulnerability.

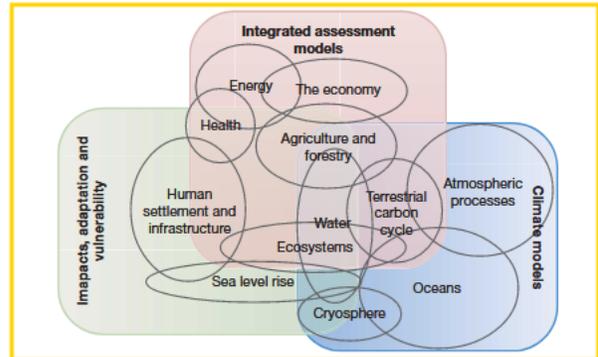
(1) Integrated assessment models represent key features of human systems, such as demography, energy use, technology, the economy, agriculture, forestry and land use. They also incorporate simplified representations of the climate system, ecosystems, and in some cases, climate impacts<sup>12</sup>. These simplified representations are calibrated against more complex climate and impact models. Because of their breadth, these models integrate information needed to study the interactions of human systems (including potential climate policies) and environmental processes that affect climate change and its impacts. Integrated assessment models typically disaggregate the world into a dozen or more regions with time steps of about a decade. Integrated assessment models are used to develop emissions scenarios, estimate the potential economic impacts of climate change and the costs and benefits of mitigation, simulate feedbacks, and evaluate uncertainties. Because they are increasingly comprehensive and include more detail about air pollutant emissions and land use, these models are increasingly important for research on the interaction of climate change with other policy objectives (such as air-pollution control and biodiversity protection).

(2) Climate models<sup>44,84</sup> are numerical representations of the Earth's natural systems used to study how climate responds to changes in natural and human-induced perturbations. There are a wide variety and complexity of climate models. Atmosphere-ocean general circulation models are the most complex physical climate models, and include components that simulate interactions of the atmosphere, ocean, land and sea ice. They divide the atmosphere and oceans into thousands of grid cells, and include interactive land-surface and biophysical processes. Regional climate models focus on subcontinental scale geographies at finer resolution. Earth system models are

increase over pre-industrial levels, as well as 'overshoot' scenarios in which radiative forcing peaks and then declines to a target level<sup>38-42</sup>. In addition, increasing attention to the impacts of climate change and the need for adaptation has spawned an interest in climate scenarios that focus on the next two to three decades with higher spatial and temporal resolution and improved representation of extreme events. Analysis of these scenarios also requires development of socioeconomic scenarios suitable for support analysis of vulnerability.

physical climate models, and include additional ecological and biogeochemical processes, such as the land and ocean carbon cycle, vegetation and biogeochemistry, which respond to changes in climate simulated by the Earth system models of intermediate complexity represent many of the key systems and processes, but with simplified equations and reduced spatial resolution. These models are useful for sensitivity experiments, questions involving long timescales (hundreds to thousands of years), or when a large number of simulations are required. Simple climate models incorporate fewer detailed processes in the atmosphere-ocean system and at coarser spatial scales. They are useful for exploring key uncertainties and have been incorporated into many integrated assessment models.

(3) Assessing impacts, adaptation and vulnerability to climate change depends on a wide array of methods and tools that includes both quantitative and qualitative approaches. Prominent approaches include observations, modelling, assessment techniques that engage stakeholders in participatory processes, economic evaluation methods and decision analysis<sup>85</sup>. The models and frameworks span the range from biophysical to economic, and explore the consequences of changes in climate for climate-sensitive resources and activities, such as agriculture, water resources, human health, ecosystems and coastal infrastructure. These frameworks inform decision makers of the potential risks and opportunities presented by climate change, and provide a means of evaluating the impacts associated with different magnitudes of climate change and the comparative effectiveness of various response strategies and management options. When impact models include representations of changes in fluxes of greenhouse gases to the atmosphere from natural and managed systems, they are useful for studying climate system 'feedbacks'; for example, from forest dieback or permafrost melting. The figure depicts the domains of the three sets of models and frameworks<sup>86</sup>, and illustrates that the models increasingly are covering overlapping substantive domains, which underscores the importance of coordination and consistency in using scenarios.



Anmerkungen:  
Markieren,  
unterstreichen,  
Zettel, Text, Bereich

Rechte Sidebar:  
Metadaten,  
Notizen

Eintragsnotizen

The next generation of scenarios for di...

"As a result, an increasing number of scen..."

24.6.24

Alle Notizen

Notizen  
(zitierbar)

## Sync

## Daten-Synchronisierung

Benutzername: idsl2-it [Benutzerkonto trennen ...](#)[Bibliotheken auswählen...](#) Automatisch synchronisieren Volltext-Inhalt synchronisieren[Über Synchronisierung](#)

## Datei-Synchronisierung

 Dateianhänge in Meine Bibliothek synchronisieren mit [WebDAV](#)URL: [https](#) [://](#)  [/zotero/](#)Benutzername: Passwort: [Server prüfen](#)Dateien herunterladen [beim Synchronisieren](#) Dateianhänge in Gruppen-Bibliotheken mit Zotero Storage synchronisierenDateien herunterladen [beim Synchronisieren](#)Wenn Sie Zotero Storage benutzen, erklären Sie sich einverstanden mit den [allgemeinen Geschäftsbedingungen](#).

## Zurücksetzen

[Optionen zum Zurücksetzen anzeigen...](#)

Deaktivierung  
Volltext  
Synchronisierung  
mit zotero.org

Alle WebDAV Dienst unterstützt.  
Sciebo:  
uni-koeln.sciebo.de/remote.php/webdav  
Benutzername und Passwort von Sciebo

 Allgemein Sync Export Zitieren Erweitert

Suche

## Export

## Schnelles Kopieren

Schnelles Kopieren ermöglicht Ihnen, Einträge schnell in einem vorgegebenen Format zu exportieren. Sie können die ausgewählten Einträge durch Drücken von Strg+Umschalt+C in die Zwischenablage kopieren oder Einträge direkt in ein Textfeld eines anderen Programms ziehen.

Ist das gewählte Format ein Zitierstil, können Sie Fließtext-Zitationen bzw. Fußnoten kopieren, indem Sie Strg+Umschalt+A drücken oder die Umschalttaste gedrückt halten, bevor Sie Einträge mit Drag-and-Drop einfügen.

Format für Einträge:

Chicago Manual of Style 17th edition (note) ▾

Sprache: Deutsch (Deutschland) ▾

 Als HTML kopieren

Format für Notizen:

Markdown + Rich Text ▾

Markdown:  Zotero-Links einschließenRich Text/HTML:  Zotero-Links einschließen

Website-spezifische Einstellungen:

Domain/Pfad

Format

Sprache

HTML

Bearbeiten

-

+

Schnelles Kopieren via Drag-and-Drop ist zeitgleich möglich für max. 50 Einträge

Hilfe

Einmalige Auswahl von  
Zitierstil für schnellen Export  
(Strg + Shift + C)

Allgemein

Sync

Export

Zitieren

Erweitert

Suche

## Zitieren

## Zitierstile verwalten

Titel	Aktualisiert
American Chemical Society	13.11.2022
American Medical Association 11th edition	28.9.2022
American Political Science Association	16.3.2024
American Psychological Association 7th edition	13.2.2024
American Sociological Association 6th/7th edition	16.2.2024
Chicago Manual of Style 17th edition (author-date)	12.5.2024
Chicago Manual of Style 17th edition (full note)	17.3.2024
Chicago Manual of Style 17th edition (note)	17.3.2024
Cite Them Right 12th edition - Harvard	29.6.2022

[Zusätzliche Stile erhalten...](#)

- +

## Zitationsoptionen

 URLs von gedruckten Artikeln in Literaturverzeichnis aufführen

Wenn diese Option deaktiviert ist, führt Zotero URLs bei der Zitierung von Zeitschriften-, Magazin-, oder Zeitungsartikeln nur dann auf, wenn bei dem Artikel kein Seitenbereich angegeben ist.

## Werkzeuge

Zitierstil-Editor

Zitierstil-Vorschau

## Textverarbeitungsprogramme

## Microsoft Word

Das Microsoft Word Add-In ist im Moment installiert.

Microsoft Word Add-In erneut installieren

## LibreOffice

Das LibreOffice Add-In ist im Moment installiert.

LibreOffice Add-In erneut installieren

 Klassische Ansicht beim Zitations-Dialog nutzen

Zusätzliche Stile aus online  
Verzeichnis nachinstallieren

Ausgewählten Stil löschen (-)  
Lokal heruntergeladenen  
installieren (+)