

Researching Topic #9 -- SOCIETAL IMPACTS – UNEQUAL IMPACTS GLOBALLY  
(differences among nations) [last revised 3/12/2021]

This prompt offers two kinds of help:

- A brief overview of the kinds of questions you might wish to explore as you study how climate change is likely to affect the food supply;
- A suggested strategy for how to search the literature as you prepare to write your paper.

OVERVIEW – UNEQUAL IMPACTS GLOBALLY (differences between nations)

Different parts of the Earth have vastly different climates. Consider the differences between: the cold poles and the equator; rainforest and desert; coastal areas and inland areas; forest and grassland; regions with abundant rainfall vs regions that are generally dry. As the climate changes, regions – and the nations in those regions – are going to be experiencing different sorts of impacts, some hugely different.

Thus, the physical location of a nation is the first factor that will affect impact, both what kind of impact and how severe.

The second factor in differential impact will be *capacity to respond, cope, adapt*. Wealthier nations will be better situated to respond than poorer ones. Nations that have, within them, a variety of ecosystems will be better situated than nations with a more uniform landscape (for example, a nation with a variety of ecosystems may be able to move farming to a new location when the previous breadbasket of the nation becomes less viable for agriculture). Nations that have a functioning government, with administrative capacity to plan and act, will be better situated than nations that have a weak, or dysfunctional, or corrupt government.

Your task, here, is to locate research that discusses the likelihood that the adverse impacts of climate change are likely to fall more heavily on some nations than on others.

You should also summarize the most important consequences for vulnerable nations, ranging from food insecurity, to access to water, to economic impacts, civil conflict, migration, etc.

## SUGGESTED STRATEGY FOR SEARCHING THE LITERATURE

I recommend the following sequence for searching the literature:

- 1 Start with a search of the most recent **reports from top scientific bodies and government agencies**;
- 2 Search **academic articles** using Google Scholar (scholar.google.com);
- 3 Do a **more general search** using Google or another search engine;
- 4 Search the **best newspapers** and **reputable climate websites**.  
(NOTE that I do not suggest using Wikipedia.)

### 1 Search the most recent **reports from top scientific bodies and government agencies**

(NOTE: There are many excellent reports one can consult. You will find a lot of repetition, so you do not need to consult every source. Here I start with a handful of the most recent reports, followed by a more complete list.)

These publications should, in most cases, supply you with all you need:

IPCC's most recent full set of reports:

<https://www.ipcc.ch/report/ar5/>

EPA: [https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-society\\_.html](https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-society_.html)

U.S. Global Change Research Program:

<https://science2017.globalchange.gov/> (the science)

<https://nca2018.globalchange.gov/> (the impacts)

American Meteorological Society:

[www.ametsoc.net/sotc2017/StateoftheClimate2017\\_lowres.pdf](http://www.ametsoc.net/sotc2017/StateoftheClimate2017_lowres.pdf)

A more complete list of best scientific and governmental sources:

#### International

Intergovernmental Panel on Climate Change  
United Nations Environmental Programme (UNEP)  
World Meteorological Organization

#### Agencies of the U.S. federal government

Environmental Protection Agency (EPA)  
National Oceanographic and Atmospheric Administration (NOAA)  
National Aeronautics and Space Administration (NASA)  
U.S. Global Change Research Program

#### Scientific bodies – U.S.

National Academic of Sciences  
Climate Change at the National Academies (climatechange@nas.edu)  
National Science Foundation

#### Other professional bodies – American Meteorological Society

2 Search **academic articles** using Google Scholar (scholar.google.com)

(NOTE: Narrow and focus your search by using several phrases in quotes – such as “climate change”. For example, if you are searching for how climate change will increase the frequency of extreme weather events, don’t just enter “climate change,” search, instead for” “climate change” AND “extreme weather events”)

Search terms to use (you may certainly choose others):

“climate change” AND “national differences in coping with climate change”

(NOTE: For some citations you find on Google Scholar, you can directly download the PDF. For other citations, you may be able to find and download PDFs if your University library offers on line access to academic journals.)

3 Do a **more general search** using Google or another search engine

Use the same search terms to do a general search on Google or another search engine. This will bring up information more recent than you find on scholar.google.com (it takes several years for research to be published in academic journals).

4 Search the **best newspapers** and **reputable climate websites**

New York Times, Washington Post, The Guardian

On line sources

Climate Central

GRIST

Society of Environmental Journalists

The Daily Climate

Climate Nexus

InsideClimate News

DeSmogBlog

Skepticalscience.com

Yale 350

(NOTE about on line sources: You will run into a lot of denialist disinformation on the internet, on websites, on blogs, on youtube. FYI, skepticalscience.com has a comprehensive list of denialist talking points (and refutations of those talking points). See, for example: <https://www.skepticalscience.com/argument.php> )

And here is a good place to get started -- explore the interactive maps at:

<https://www.cgdev.org/page/mapping-impacts-climate-change>

<https://www.businessinsider.com/best-countries-escape-climate-change-map-2018-1>

Some good additional sources, March 2021:

King, A. D., & Harrington, L. J., “The inequality of climate change from 1.5 to 2°C of global warming,” *Geophysical Research Letters*, Vol. 45, 2018,  
<https://doi.org/10.1029/2018GL078430>

Katharine Ricke, *et al*, “Country-level social cost of carbon,” *Nature Climate Change*,  
<https://doi.org/10.1038/s41558-018-0282-y>

<https://insideclimatenews.org/news/22042019/climate-change-inequality-gdp-equator-africa-russia-norway-canada>

<https://eos.org/scientific-press/study-global-warming-hits-poorest-nations-hardest>

<https://www.wsj.com/articles/cyclone-shows-climate-changes-deadly-impact-on-poor-urbanizing-nations-11553025619>

[https://grist.org/article/new-study-pinpoints-the-places-most-at-risk-on-a-warming-planet/?utm\\_medium=email&utm\\_source=newsletter&utm\\_campaign=daily](https://grist.org/article/new-study-pinpoints-the-places-most-at-risk-on-a-warming-planet/?utm_medium=email&utm_source=newsletter&utm_campaign=daily)