

CIRA 2.0 DATA SUMMARY

Mega-Sector	Sector	Econ/Phys	Variable	Data Availability ¹	
				Spatial ^c	Time
Health	Air Quality	Economic	Value of premature deaths	NCA Region	Era
		Physical	Ozone	36 km grid	Era
			# Deaths	County	Era
	Extreme Temperature	Economic	Value of premature deaths	City	Era
		Physical	# Deaths	City	Era
	Labor	Economic	Wages Lost	County	Era
		Physical	Hours Lost	County	Era
	Aeroallergens^a	Economic	Costs of ED visits	NCA Region	Era
		Physical	ED visits	City	Era
			Pollen Season Length	NCA Region	Era
	Harmful Algal Blooms	Economic	Recreation value	State	Era
		Physical	Cyanobacteria 100k cells/mL	HUC4	Era
			Recreation Days	NCA Region	Era
	West Nile Virus	Economic	Value of WNVD cases	State	Era
Physical		# Cases	State	Era	
Infrastructure	Roads	Economic	Repair Costs	CRU	Era
		Physical	No summary physical impact available.	n/a	n/a
	Bridges	Economic	Maintenance Costs	HUC8	Era
		Physical	# Vulnerable Bridges	HUC8	Era
	Rail	Economic	Adaptation Costs	CRU	2006-2099
		Physical	No summary physical impact available.	n/a	n/a
	Alaska Infrastructure	Economic	Repair Costs	State	Era
		Physical	Permafrost Distribution	Permafrost regions	n/a
	Urban Drainage	Economic	Proactive adaptation costs	City	Era
		Physical	Changes in flood depth	City	Era
Coastal Properties^a	Economic	Costs	County	2000-2100	
	Physical	Sea level rise	County	2000-2100	
Electricity	Electricity Supply and Demand	Economic	System Costs	NCA Region	Era
		Physical	HDD, CDD	NCA Region	2005-2115 (5yrs)
Agriculture	Agriculture^b	Economic	Welfare	National	2010-2100
		Physical	% Decrease in Yields	MLRA	1980-2099 (5yrs)

¹ Spatial and temporal scale of the files posted.

Mega-Sector	Sector	Econ/Phys	Variable	Data Availability ¹	
				Spatial ^c	Time
Water Resources	Inland Flooding	Economic	Damages	NCA Region	2001-2099
		Physical	Number of 100-year floods	National	2001-2100
	M&I Water Supply	Economic	Welfare	HUC4	2006-2099
		Physical	% Unmet demand	HUC4	2006-2099
	Water Quality	Economic	Recreation Value	NCA Region	Era
		Physical	Water temperature, DO, Nitrogen, Phosphorous	NCA Region	Era
	Winter Recreation	Economic	Ticket revenues	State	Era
		Physical	Visits	State	Era
			Season length	Recreation Sites	Era
Ecosystem Services	Coral	Economic	Recreation value	Hawai'i, South Florida, Puerto Rico	2010-2100
		Physical	% Lost Coral Coverage	Hawai'i, South Florida, Puerto Rico	2010-2100
	Shellfish	Economic	Consumer welfare	National	2010-2099
		Physical	% Decrease in shellfish supply	NCA Region	2010-2099
	Freshwater Fish	Economic	Recreation Value	NCA Region	Era
		Physical	Change in habitat type and precipitation	HUC8	Era
	Wildfire (zip files 1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10)	Economic	Response Costs	Fire Region	2006-2100
Physical		Acres burned	1/16 degree	2006-2100	

Notes:

- a. Data provided for these sectors reflects an updated and improved methodology and/or scope compared to the study cited in Martinich and Crimmins (2019). For aeroallergens, see Neumann et al. (2019 – Geohealth, doi 10.1029/2018GH000153). For coastal, see Neumann et al. (in review, Journal of Infrastructure Systems).
- b. The Access database of crop yields for the Agriculture sector contains the raw outputs from the EPIC model. The changes in the crop yields provided as an Excel spreadsheet represent the results after optimization in FASOM.
- c. Crosswalks for aggregation of damages to the state level from [HUC8](#)- and [CRU](#)-level results are also available for download.