

SUPPLEMENTARY MATERIAL

Table SI. Complete list of indicators, considered for analysis, grouped. by category.

Category	Indicator	Code	Description	Source	Year
Damage and losses due to disasters	Type of disaster – Cobrade	-	Brazilian disaster codification, developed from the classification used by the International Disaster Database of the Center for Research on the Epidemiology of Disasters and the World Health Organization	S2ID	2013 to 2020
	Status	-	Registration of recognition request only; Not recognized and recognized. The recognition status means that the federal government has recognized the event as a situation of emergency or state of public calamity	S2ID	2013 to 2020
	Human Damage: dead	-	Number of dead people	S2ID	2013 to 2020
	Human Damage: injured	-	Number of people who need or who do not need hospitalization	S2ID	2013 to 2020
	Human Damage: ill	-	Number of people who developed illnesses	S2ID	2013 to 2020
	Material Damage: public health facilities damaged	-	Number of public health facilities (hospitals, health centers and others) damaged	S2ID	2013 to 2020
	Material destroyed: public health facilities destroyed	-	Number of public health facilities (hospitals, health centers and others) destroyed	S2ID	2013 to 2020
	Public Economic Losses: health care, public health and emergency medical service	-	Amount needed to restore medical service	S2ID	2013 to 2020
Demographics and health infrastructure	Total population	-	Total number of people residing, by gender and/or age group, in a given geographic space, in the year under consideration	PROADESS	2020
	Population density	-	It is the ratio between the number of inhabitants and the size of a given geographical area	PROADESS	2020
	Health care facilities	-	Number of health facilities	CNES	2020
	Total hospital beds	-	Number of inpatient hospital beds in general or specialized hospitals (surgical, clinical, obstetric and pediatric), per 1.000 inhabitants, in a given geographical space, in the year under consideration	PROADESS	2020
	Physicians	-	Number of physicians, per 1.000 inhabitants, in a given geographic space, in the year under consideration	PROADESS	2020
	Nurses	-	Number of nurses, per 100 thousand inhabitants, in a given geographical area, in the year under consideration	PROADESS	2020

Table SI. Continuation.

Disaster Risk Management	Drought	MGRD01	Affected by drought in the last 4 years?	IBGE	2020
	Contingency Plan - Drought	MGRD05	Does it have a Contingency and/or Preservation Plan for drought?	IBGE	2020
	Floods	MGRD06	Has the municipality been affected by floods in the last 4 years?	IBGE	2020
	Erosion process	MGRD07	Has the municipality been affected by accelerated erosion process in the last 4 years?	IBGE	2020
	Floods	MGRD08	Affected by floods in the last 4 years?	IBGE	2020
	Floods	MGRD1041	Areas of the county where floods occurred: naturally floodable	IBGE	2020
	Floods	MGRD1042	Areas of the municipality where floods occurred: not usually floodable	IBGE	2020
	Floods	MGRD1043	Areas of the municipality where floods occurred: with regular occupations	IBGE	2020
	Floods	MGRD1044	Areas of the municipality where floods occurred: with irregular occupations	IBGE	2020
	Floods	MGRD1047	Areas of the municipality where floods occurred: unable to inform	IBGE	2020
	Flash floods	MGRD011	Has the municipality been affected by flash floods in the last 4 years?	IBGE	2020
	Flash floods	MGRD1341	Areas of the municipality where flash floods occurred: naturally floodable	IBGE	2020
	Flash floods	MGRD1342	Areas of the municipality where the flash floods occurred: not usually floodable	IBGE	2020
	Flash floods	MGRD1343	Areas of the municipality where flash floods occurred: with regular occupation	IBGE	2020
	Flash floods	MGRD1344	Areas of the municipality where flash floods occurred: with irregular occupations	IBGE	2020
	Flash floods	MGRD1347	Areas in the municipality where the flash floods: unable to inform	IBGE	2020
	Contingency plan – floods or flash floods	MGRD184	Does it have a contingency plan for floods or flash floods?	IBGE	2020
	Master Plan for the prevention of floods or flash floods	MGRD171	Does the municipality have as a planning instrument: a Master Plan that covers the prevention of floods or flash floods?	IBGE	2020
	Land Use and Occupancy Law that contemplates the prevention of floods or flash floods	MGRD172	Does the municipality have a Land Use and Occupancy Law as a planning instrument that contemplates the prevention of floods or flash floods?	IBGE	2020

Table SI. Continuation.

Disaster Risk Management	Law for the prevention of floods or flash floods	MGRD173	Does the municipality have as a planning instrument a specific law that contemplates floods or flash floods prevention?	IBGE	2020
	Relocation of low-income population in risk areas – floods or flash floods	MGRD182	Regarding disaster risk management due to floods or flash floods, does the municipality have: a housing program to relocate the low-income population in risk areas (resettlement in a social housing project, payment of social rent or similar, compensation for improvements, purchase of a new home, specific financial assistance, among others)?	IBGE	2020
	Control and enforcement mechanisms – floods or flash floods	MGRD183	Regarding disaster risk management due to floods or flash floods, does the municipality have: mechanisms of control and inspection to avoid occupation in disasters-prone areas?	IBGE	2020
	Risk areas mapping – floods or flash floods	MGRD181	Regarding disaster risk management due to floods or flash floods, does the municipality have: risk areas mapping?	IBGE	2020
	Early warning system for disasters – floods or flash floods	MGRD186	Regarding disaster risk management due to floods or flash floods, does the municipality have: disaster early warning system?	IBGE	2020
	Periodic cleaning of culverts – floods or flash floods	MGRD19	Regarding disaster risk management due to floods or flash floods, the municipality carries out periodic cleaning of the city's culverts, especially before the rainy season	IBGE	2020
	Landslides	MGRD14	Affected by landslides in the last 4 years?	IBGE	2020
	Landslides	MGRD1641	Areas in the municipality where landslides occurred: from slopes and hillsides subject to landslides	IBGE	2020
	Landslides	MGRD1642	Areas in the municipality where landslides occurred: urban areas with chronic erosion processes	IBGE	2020
	Landslides	MGRD1643	Areas of the municipality where landslides occurred: no drainage infrastructure	IBGE	2020
	Landslides	MGRD1644	Areas of the municipality where landslides occurred: with regular land occupations	IBGE	2020
	Landslides	MGRD1645	Areas of the municipality where landslides occurred: with irregular land occupations	IBGE	2020
	Landslides	MGRD1648	Areas of the municipality where landslides occurred: unable to inform	IBGE	2020
	Contingency Plan - landslides	MGRD204	Does it have a contingency plan for landslides?	IBGE	2020

Table SI. Continuation.

Disaster Risk Management	Master Plan that contemplates the prevention of landslides	MGRD174	Does the municipality have as a planning instrument: a Master Plan that contemplates the prevention of landslides?	IBGE	2020
	Land Use and Occupancy Law that contemplates the prevention landslides	MGRD175	Does the municipality have a Land Use and Occupancy Law as a planning instrument that contemplates the prevention of landslides?	IBGE	2020
	Specific law that addresses the prevention of landslides	MGRD176	Does the municipality have as a planning instrument: a specific law that contemplates the prevention of landslides?	IBGE	2020
	Housing program for relocation of low-income population in risk areas –landslide	MGRD202	Regarding disaster risk management due to landslides, the municipality has: Housing program to relocate low-income population in risk areas (resettlement in a social housing development, payment of social rent or similar, compensation for improvements, purchase of a new home, specific financial assistance, among others)?	IBGE	2020
	Occupation in disaster-prone areas – landslides	MGRD203	Control and inspection mechanisms to avoid occupation in disasters-prone areas?	IBGE	2020
	Risk areas mapping – landslides	MGRD201	Regarding disaster risk management due to landslides, does the municipality have mapping of areas at risk of flooding?	IBGE	2020
	Alert system – landslides	MGRD206	Regarding disaster risk management due to landslides, does the municipality have: disaster early warning system?	IBGE	2020
	Municipal plan	MGRD177	Is there a municipal disaster risk reduction plan?	IBGE	2020
	Geotechnical letter	MGRD178	Does the municipality have as a planning instrument: Geotechnical letter of Aptitude to Urbanization?	IBGE	2020
	Municipal Civil Defense and Protection Coordination	MGRD212	Regarding disaster risk management and response, does the municipality have: Municipal Civil Defense and Protection Coordination (COMPDEC) or similar body?	IBGE	2020
	Civil Defense Center	MGRD213	Regarding disaster risk management and response, is there in the municipality: Civil Defense Centers (NUDECs)?	IBGE	2020
	Disaster risk management and response	MGRD216	Regarding disaster risk management and response, exists in the municipality: unable to inform	IBGE	2020

Table S1. Continuation.

Disaster Risk Management	Protection and civil defense – educational practices	MGRD232	Civil defense protection activities: are there educational practices aimed at raising awareness and perception of the risk situation in the communities?	IBGE	2020
	Civil defense protection activities	MGRD239	Civil defense protection activities: unable to inform	IBGE	2020
	Environmental management – climate change	MMAM2011	Existing legislation or environmental management instrument in the municipality? On climate change adaptation and mitigation	IBGE	2020
	Environmental management – protection zone	MMAM204	Existing legislation or environmental management instrument in the municipality? On area and/or zone of environmental protection or control	IBGE	2020