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How Natural Disasters Impact the Environment



Can you name some natural disasters?

- Earthquakes
- Hurricanes
- Lightning
- Fire
- Tsunami
- Tornados
- Volcanoes
- Blizzards
- Floods
- Heat
- Drought



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What You'll Learn

During this PowerPoint you are going to about 11 natural disasters. You will see some statistical information about how each disaster impacts man. Afterwards, you'll be a researcher to learn how natural disasters affect the environment.



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Earthquake

A sudden movement of the earth's crust caused by the release of stress collected along faults or by volcanic activity

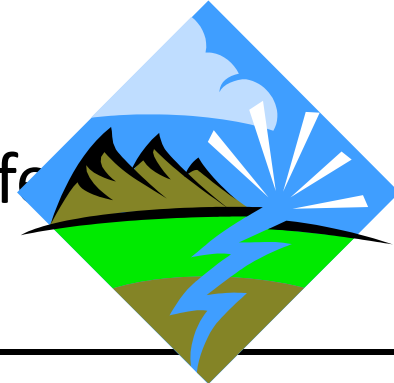


Earthquake Statistics <http://neic.usgs.gov/neis/eqlists/eqstats.html>

Earthquake Video <http://video.nationalgeographic.com/video/player/environment/environment-natural-disasters/earthquakes/earthquake-101.html>



Richter Earthquake Magnitudes Effects




Less than 3.5	Generally not felt, but recorded.
3.5-5.4	Often felt, but rarely causes damage.
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0-7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.



Frequency of Occurrence of Earthquakes

Magnitude	Average Annually
8 and higher	1
7 - 7.9	17
6 - 6.9	134
5 - 5.9	1319
4 - 4.9	13,000 (estimated)
3 - 3.9	130,000 (estimated)
2 - 2.9	1,300,000 (estimated)





Lightning

A brilliant electric spark discharge in the atmosphere, occurring thin a thundercloud, between clouds, or between a cloud and the ground

- Walking to vehicle
- Riding motorcycle
- Yard work
- Walking to bus
- Playing baseball
- Jogging
- Yard work
- Walking





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- Trimming grass
- Clearing brush
- Waiting for car ride
- Camping, going to car
- Golfing
- Fishing
- Cutting lawn
- Shell fishing
- Building treehouse



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Fire



a burning mass of material

Fire Statistics <http://www.usfa.dhs.gov/statistics/>



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Tsunami



an unusually large sea wave produced by a
seaquake or undersea volcanic eruption

Tsunami Statistics <http://wcatwc.arh.noaa.gov/tsustats.pdf>



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Volcano



a vent in the earth's crust through which lava, steam, ashes, etc., are expelled, either continuously or at irregular intervals

Volcano Statistics

[http://www.epicdisasters.com/index.php/site/comments/the worlds worst volcanic eruptions/](http://www.epicdisasters.com/index.php/site/comments/the_worlds_worst_volcanic_eruptions/)



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Blizzard



A violent snowstorm with winds blowing at a minimum speed of 35 miles per hour and visibility of less than one-quarter mile for three hours

Top Blizzards in US

- <http://www.infoplease.com/ipa/A0886098.html>
- <http://nsidc.org/snow/blizzard/storms.html>



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Flood



A temporary rise of the water level, as in a river or lake or along a seacoast, resulting in its spilling over and out of its natural or artificial confines onto land that is normally dry. Floods are usually caused by excessive runoff from precipitation or snowmelt, or by coastal storm surges or other tidal phenomena.

Flood Statistics <http://www.floodsafety.com/national/life/statistics.htm>



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Tornado



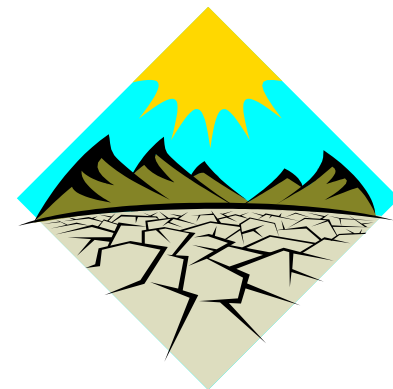
A violently rotating column of air extending from a cumulonimbus cloud to the Earth, ranging in width from a few meters to more than a kilometer and whirling at speeds between 40 and 316 mi per hour.

Tornado Statistics <http://www.spc.noaa.gov/climo/online/monthly/newm.html>



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Drought



A long period of abnormally low rainfall, especially one that adversely affects growing or living conditions.

Statistical Information http://www.ncdc.noaa.gov/paleo/drought/drght_alleve.html

Heat Wave



- An air mass of high temperature covering an extended area and moving relatively slowly
- A period of abnormally hot and usually humid



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Findings



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How Earthquakes Impact the Environment

- Collapsing buildings
- Property damage
- Mud slides
- Fires
- Floods
- Tsunamis
- Loss of power

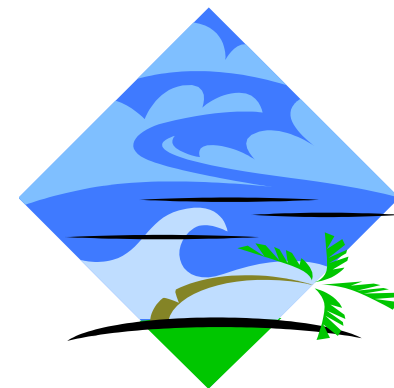




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How **Hurricanes** Impact the Environment

- Erosion
- Houses, buildings, and other structures destroyed
- Heavy flooding of inland areas
- Tornadoes
- Loss of power
- Contaminated water supply

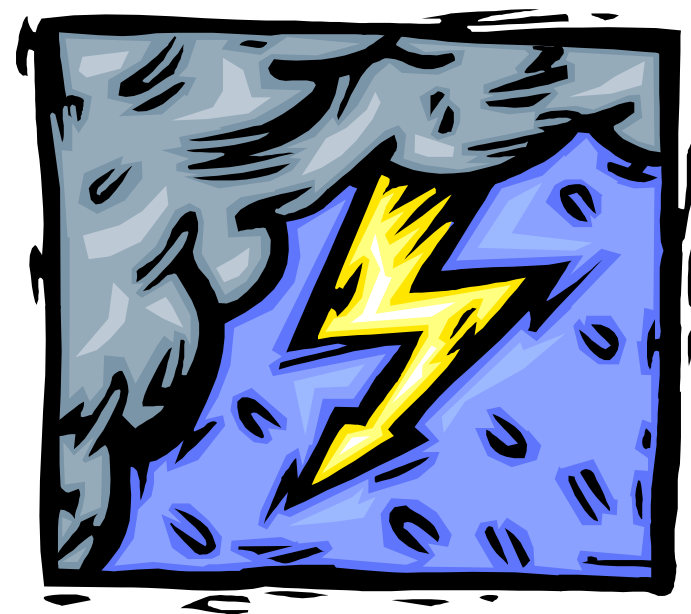




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How **Lightning** Impacts the Environment

- Fire
- Loss of power





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How **Fire** Impacts the Environment

- Houses, buildings, and other structures destroyed
- Loss of habitat



How **Tsunamis** Impact the Environment



- Houses, buildings, and other structures destroyed
- Loss of power
- Erosion
- Fresh water contaminated



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How **Volcanic Eruptions** Impact the Environment

- Houses, buildings, and other structures destroyed
- Fires
- Toxic gases released into the atmosphere
- Carbon dioxide emitted from volcanoes adds to the natural greenhouse effect.
- Loss of habitat





How **Blizzards** Impact the Environment

- Flooding when snows melt
- Trees fall
- Power outages
- Hypothermia

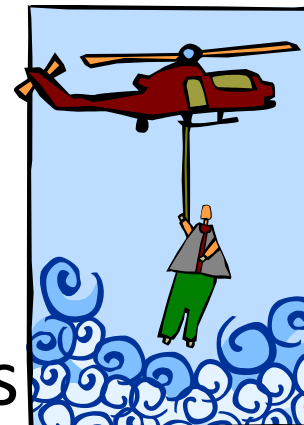




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How **Flooding** Impacts the Environment

- Disease
- Loss of habitat
- Houses, buildings, and other structures destroyed
- Household wastes get into the water system
- Power outages





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How **Tornadoes** Impacts the Environment



- Tornadoes could hit hazardous or toxic materials which could be carried by a thunderstorm and then transported along ways downstream.
- Could transport certain types of small animals and plants across the land
- Destroys topsoil and crops



How **Drought** Impacts the Environment



- young trees die
- dried up lakes and other water sources
- loss of livestock and crops
- People use more fuel during droughts.
- losses or destruction of fish and wildlife habitat
- lack of food and drinking water for wild animals
- increase in disease in wild animals, because of reduced food and water supplies
- migration of wild animals, leading to a loss of wildlife in some (drought-stricken) areas and too many wildlife in areas not affected by drought
- increased stress on endangered species
- lower water levels in reservoirs, lakes, and ponds
- loss of wetlands
- more fires
- wind and water erosion of soils, reduced soil quality

Information from <http://drought.unl.edu/kids/impacts/affects.htm>