

# Hazard and vunarability analysis slp 2



**ASSIGN  
BUSTER**

The table below shows the summary of natural disasters that took place in Japan during last 30 years. Type of Natural disasters Number of Events (frequency) Rank Killed Rank Total Affected Rank Damage (000 US\$) Rank overall priority rank

Type of Natural disasters	Number of Events (frequency)	Rank	Killed	Rank	Total Affected	Rank	Damage (000 US\$)	Rank	overall priority rank
Drought	1	-	-	-	ave. per event	-	-	-	-
Earthquake (seismic activity)	47	1	166164	4	994246	4	148122400	4	1
Earthquake (ground shaking)	47	1	166164	4	994246	4	148122400	4	1
Tsunami	8	2	6477	3	25319	5	450000	2	2
Tsunami	8	2	6477	3	25319	5	450000	2	2
Total	55	2	166811	3	1019665	3	148572400	2	1
Epidemic Bacterial Infectious Diseases	2	1	534	-	ave. per event	-	-	-	-
Epidemic Bacterial Infectious Diseases	2	1	534	-	ave. per event	-	-	-	-
Viral Infectious Diseases	1	-	2000000	-	ave. per event	-	-	-	-
Viral Infectious Diseases	1	-	2000000	-	ave. per event	-	-	-	-
Total	3	4	2000534	0.5	2000267	1	2000000	4	3.25
Extreme temperature Heat wave	3	3	138	3	18300	-	ave. per event	46	6100
Extreme temperature Heat wave	3	3	138	3	18300	-	ave. per event	46	6100
Total	3	4	138	3	18300	3	18300	3	4
Flood Unspecified	31	2	12814	3	7015269	2	268300	2	2
Flood Unspecified	31	2	12814	3	7015269	2	268300	2	2
Flash flood	1	21	25807	1950000	ave. per event	21	25807	1950000	21
Flash flood	1	21	25807	1950000	ave. per event	21	25807	1950000	21
General flood	12	197	99266	1814000	ave. per event	16.4	8272.2	151166.7	197
General flood	12	197	99266	1814000	ave. per event	16.4	8272.2	151166.7	197
Storm surge/coastal flood	2	34	384143	7440000	ave. per event	17	192072	3720000	34
Storm surge/coastal flood	2	34	384143	7440000	ave. per event	17	192072	3720000	34
total	46	2	467.8	2	452450	2	5829821.5	1	1.75
Mass movement wet Avalanche	1	4	13	-	ave. per event	-	-	-	-
Mass movement wet Avalanche	1	4	13	-	ave. per event	-	-	-	-
Landslide	20	989	25706	210000	ave. per event	49.5	1285.3	10500	989
Landslide	20	989	25706	210000	ave. per event	49.5	1285.3	10500	989
total	21	3	62.5	3	1285.3	3	10500	2	2.75
Storm Unspecified	24	1890	192814	453500	ave. per event	78.8	8033.9	18895.8	1890
Storm Unspecified	24	1890	192814	453500	ave. per event	78.8	8033.9	18895.8	1890
Local storm	6	27	100499	363000	ave. per event	4.5	16749.8	60500	27
Local storm	6	27	100499	363000	ave. per event	4.5	16749.8	60500	27
Tropical cyclone	109	32500	7512095	53055500	ave. per event	298.2	68918.3	486747.7	32500
Tropical cyclone	109	32500	7512095	53055500	ave. per event	298.2	68918.3	486747.7	32500
total	139	1	381.5	2	93702	2	566143.5	2	1.75
Volcano Volcanic eruption	15	515	99979						
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132000      ave. per event      34.3      6665.3      8800      total 15334.33

6665.33 880033 Wildfire Forest fire 1 - 222 -      ave. per event      -

222 -      total 14\_4 222 4\_4 4 (The International disaster Database 1) As

a disaster manager for Japan, I have ranked the disaster types in terms of priority by calculating average value of the four different ranks- rank in terms of frequency, rank in terms of number of people killed, rank in terms of total affected people and rank in terms of damage to the economy. After calculating priority rank following this criterion, I have found that earthquake is the highest priority natural disaster, whereas wildfire and drought are the lowest priority natural disasters. Earthquake has obtained the highest priority rank as it holds very high rank for each of the variable. For examples, it holds the highest rank (1) for number of people killed per event and second highest rank (2) for frequency and total affected persons. 2. The most vulnerable area of Japan to earthquake is the Northeast Pacific coast of Japan containing the cities like Tokyo, Nagoya and Kobe. ( Bachelor 1) The pacific tectonic plates are considered to be the most active source of volcano activity and the movement of the plates. However in Japan, the two tectonic plates close to northeast Pacific coast of the country are always under pressure as the plates are always expanding, close to this region. ( Bachelor 1) Reference: 1. Bachelor, Rosemary E. World's 20 Most Earthquake Prone Cities. 2010. Retrieved from <http://www.suite101.com/content/worlds-20-most-earthquake-prone-cities-a209850> on 14th March, 2011. 2. The International disaster Database. Summarized Table of Natural Disasters in Japan from 1900 to 2011. 2011. Retrieved from <http://www.emdat.be/result-country-profile#summtable> on 14th March, 2011