

What is the world's most vulnerable city?

Level 2 • Intermediate

1 Warmer

What are the biggest dangers facing the world's largest cities? Rank the following in order from 1 (most dangerous) to 8 (least dangerous) and discuss your choices.

- traffic pollution
- war
- disease
- drought
- over-population
- climate change
- famine
- crime

2 Key words

Fill the gaps in the sentences using these key words from the text. The paragraph numbers are given to help you.

wildfire
abandon

porous
disintegrate

low-lying
uninhabitable

vulnerable
sewage

inundated
compact

1. If things _____, they are destroyed by being broken into lots of small pieces. (para 1)
2. A _____ place is in a position that is close to the level of the sea. (para 2)
3. If an area is _____, it is covered with water. (para 2)
4. To _____ means *to make something firmer by pressing it*. (para 4)
5. A _____ substance has a lot of very small holes in it so air and water can pass through it. (para 6)
6. _____ is waste substances, especially waste from people's bodies, removed from buildings by underground pipes. (para 6)
7. If a place is _____, it is impossible for people to live there. (para 6)
8. If people _____ a place, they leave it because it is difficult or dangerous to stay there. (para 7)
9. If a place is _____, it is easily damaged by something negative or harmful. (para 11)
10. A _____ is a fire that starts in an area of countryside and spreads very quickly. (para 11)

3 Find the information

Find the following information in the text as quickly as possible.

1. How often is the Piazza San Marco in Venice inundated with water each year?
2. How many metres has the city of Jakarta sunk over the last 30 years?
3. How high is Miami above sea level?
4. How far is the Sahara Desert moving south each year?
5. How many cars do the 38 million people of California own?
6. How many major fire disasters were there in America between 1953 and 2014?

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- 1 Apart from volcanoes, hurricanes and earthquakes, there are two key things that can make a city disintegrate or even totally disappear – water and sand.
- 2 A century ago, Venice – one of the most beautiful and low-lying cities in the world – used to flood around ten times a year. Nowadays, its lowest point, Piazza San Marco (only three feet above sea level) is inundated with water approximately 100 times a year.
- 3 But rising sea levels are not the only cause. In many parts of the world, the land is also sinking. In Venice, subsoil compaction (a result of industrial exploitation of the surrounding area) lowered the city by 20cm between 1950 and 1970. Ho Chi Minh City in Vietnam is also sinking by about 2cm a year – but that's nothing compared to Jakarta, which is dropping 10 to 20cm each year. In the past three decades, the city has sunk roughly four metres.
- 4 Unfortunately for the Indonesian capital, it has pumped out so much groundwater to support its population that the land above is drying out and compacting – this has created a bowl. Rivers that used to flow through the city down to the sea have had to be diverted because they cannot drain uphill.
- 5 While there are many plans to save Venice – and Ho Chi Minh City and Jakarta are taking the problem seriously – the same cannot be said for Miami, where politicians refuse to admit the city has a serious environmental problem.
- 6 There are three problems in Miami. It is less than ten feet above sea level; an increasing number of tropical storms are inundating the city; and it is built on porous rock, which is absorbing the rising seawater. This water then fills the city's foundations and comes up through drains and pipes, forcing sewage upwards and polluting its fresh water. It is possible that Miami may one day become uninhabitable.
- 7 In the Maldives, the populations of whole islands are now considering abandoning their homes. The capital, Malé, population 153,379 and only four feet above sea level, has built a ten-foot sea wall at a cost of \$63 million – but, long term, only a stabilization of rising sea levels will save it and the rest of the islands.
- 8 In Africa, desertification is causing the Sahara to spread south at a rate of 30 miles per year, threatening settlements in northern Mauritania. Over the past 20 years, for example, the desert has grown by more than 260 acres around the trading and religious centre of Chinguetti, where the population has declined from 20,000 people in the mid-twentieth century to just a few thousand now. Trading has almost completely stopped as sand piles up in the streets.
- 9 Likewise, the Californian resort of Rancho Mirage, near Palm Springs, may have to be abandoned in the next decade. This city is just one example of a problem caused not so much by global warming as human over-expansion. California's dream of farming the desert made sense while its total population remained around half a million (in 1870) – but now the state is home to 38 million people, who own 32 million vehicles.
- 10 The daily water use in Rancho Mirage is more than 200 gallons per person, which is causing a man-made drought. A 25% cut in water use has been implemented but this is unlikely to stabilize the resort, which is surrounded by sand and dust. The long-term answer in California's desert is likely to be the abandonment of some cities.
- 11 Fire is a growing threat to urban settlements in America – in fact, forest fires cause the most damage after severe storms, with 800 major fire disasters there between 1953 and 2014. A new report by the USDA Forest Service maps the increasing number of urban locations that are particularly vulnerable to wildfire.
- 12 Similarly in Australia, some of Victoria's resorts and several Melbourne suburbs have been placed on a list of the state's 52 most vulnerable bushfire spots because long-term droughts are making trees highly combustible. It's unlikely that a forest fire will ever destroy an entire city but a succession of fires could make it uninhabitable.

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13 Many cities are fighting a losing battle against nature but is it possible to identify the world's most vulnerable city? Natural events are very difficult to predict – but Malé's future looks particularly bad because, even if its new sea wall continues to be effective, the islands around the Maldives capital are going to disappear before

too long. And, if they disappear, Malé's *raison d'être* disappears, too.

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4 Comprehension check

Are these statements true (T) or false (F) according to the text?

1. Rising sea levels are the only cause of flooding.
2. Politicians in Miami are taking the problem of flooding seriously.
3. Only a stabilization of rising sea levels will save Malé and the rest of the Maldivian islands.
4. The problems of Rancho Mirage in California have been caused by global warming only.
5. Severe storms have caused more damage in the USA than forest fires.
6. It is probable that a forest fire will destroy an entire city.

5 Find the word

Find the following words and phrases in the text.

1. a noun meaning *a period of ten years* (para 3)
2. a two-word phrasal verb meaning *use equipment to remove water* (para 4)
3. a verb meaning *make something move or travel in a different direction* (para 4)
4. a verb meaning *take in a gas, liquid or other substance* (para 6)
5. a two-word phrasal verb meaning *increase a lot* (para 8)
6. a verb meaning *make something such as an idea, plan, system or law start to work and be used* (para 10)
7. an adjective meaning *able to burn easily* (para 12)
8. a three-word expression meaning *the reason why something exists or is considered to be important* (para 13)

6 Compound words

Match the words in the left-hand column with those in the right-hand column to make words from the text.

- | | |
|-----------|----------|
| 1. up | a. water |
| 2. earth | b. made |
| 3. ground | c. fire |
| 4. sea | d. hill |
| 5. man- | e. water |
| 6. bush | f. quake |

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7 Word-building

Complete the table using words from the text.

	verb	noun
1.	exploit	
2.	abandon	
3.	stabilize	
4.	settle	
5.	expand	
6.	populate	

8 Discussion

Discuss the following statements.

- It would be better to abandon cities like Malé rather than spend millions trying to save them.
- Everyone should start trying to save water right now.