



RISING SEA LEVEL: FLOOD MANAGEMENT IN COASTAL CITIES

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INTRODUCTION

Since the Earth started to get warm as a consequence of climate change, the level of the sea has increased.

CITIES WHICH ARE NEXT TO THE COAST HAVE STARTED TO SUFFER COASTAL FLOODS.

INTRODUCTION



11 SUSTAINABLE CITIES AND COMMUNITIES



'Reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters'



INTRODUCTION



**HOW DO COUNTRIES
MANAGE THIS ISSUE?**



MAP OF THE PRESENTATION

1

CAUSES AND CONSEQUENCES
OF RISING SEA LEVELS

2

WAYS TO DEAL WITH
FLOODS

3

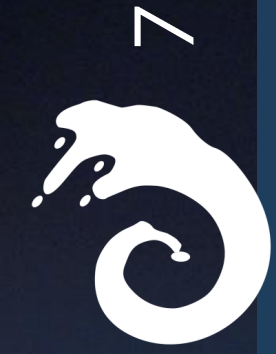
THE DIFFERENT FACTORS
IMPACTING ON THE
SOLUTIONS



PROBLEM DESCRIPTION

This issue has become a cause of concern in recent years. Finding a solution to mitigate the effects of the coastal floods is a priority.

1



7

PROBLEM DESCRIPTION



The increase in greenhouse gases has led to their concentration in the atmosphere.



Studies have revealed **distressing outcomes**, including the gradual disappearance of coasts and beaches

THE END OF THE ICE AGE

PROBLEM DESCRIPTION

Global Warming

noun

"The rising temperature phenomenon on our planet" [*]



ozone layer

THE END OF THE ICE AGE



Water gets frozen at 0°C .



Liquid water volume is much more than the ice water with the same mass.



It does not only affect our planet's geographical feature but also humans and animals.

INFRASTRUCTURE CONSEQUENCES

CONSEQUENCES TODAY



The main consequence is the rising sea level.

The main goal has been to find a way to control these natural disasters.



PROBLEM APPROACH

It is a problem that affects everyone.

1

SOLVE THE PROBLEM

2

IMPROVE INFRASTRUCTURE

3

COEXIST WITH THE PROBLEM

2

SOLVING THE PROBLEM

Solving the problem has been the main target but it is usually expensive.





PROBLEM APPROACH

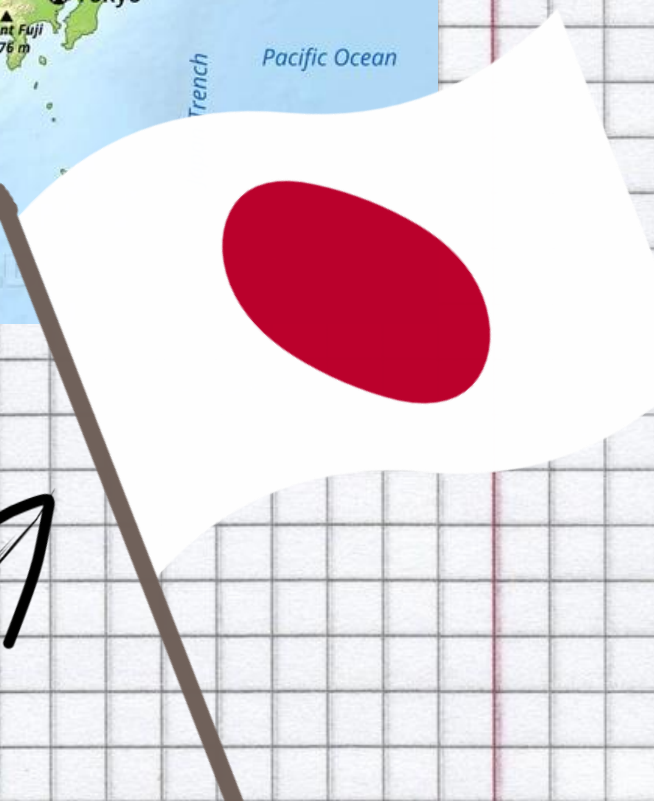
SOLVING THE PROBLEM

This country has improved one of the smartest sewer systems in the world



'Tortajada Floodwater Cathedral'

Country: Japan



its flag

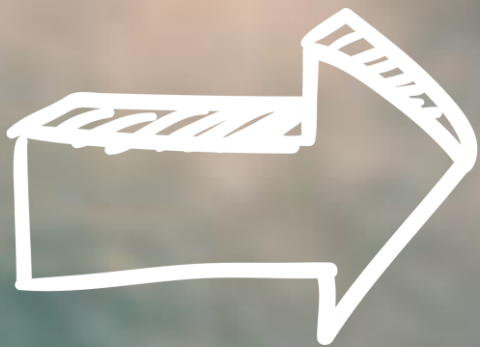


IMPROVING INFRASTRUCTURE

Old coastal buildings were chose to be reinforced.



Some countries have always had a flooding problem and today this issue has increased.



IMPROVING INFRASTRUCTURE

London uses a barriers system to protect the city from the floods caused by the rising Thames River level.



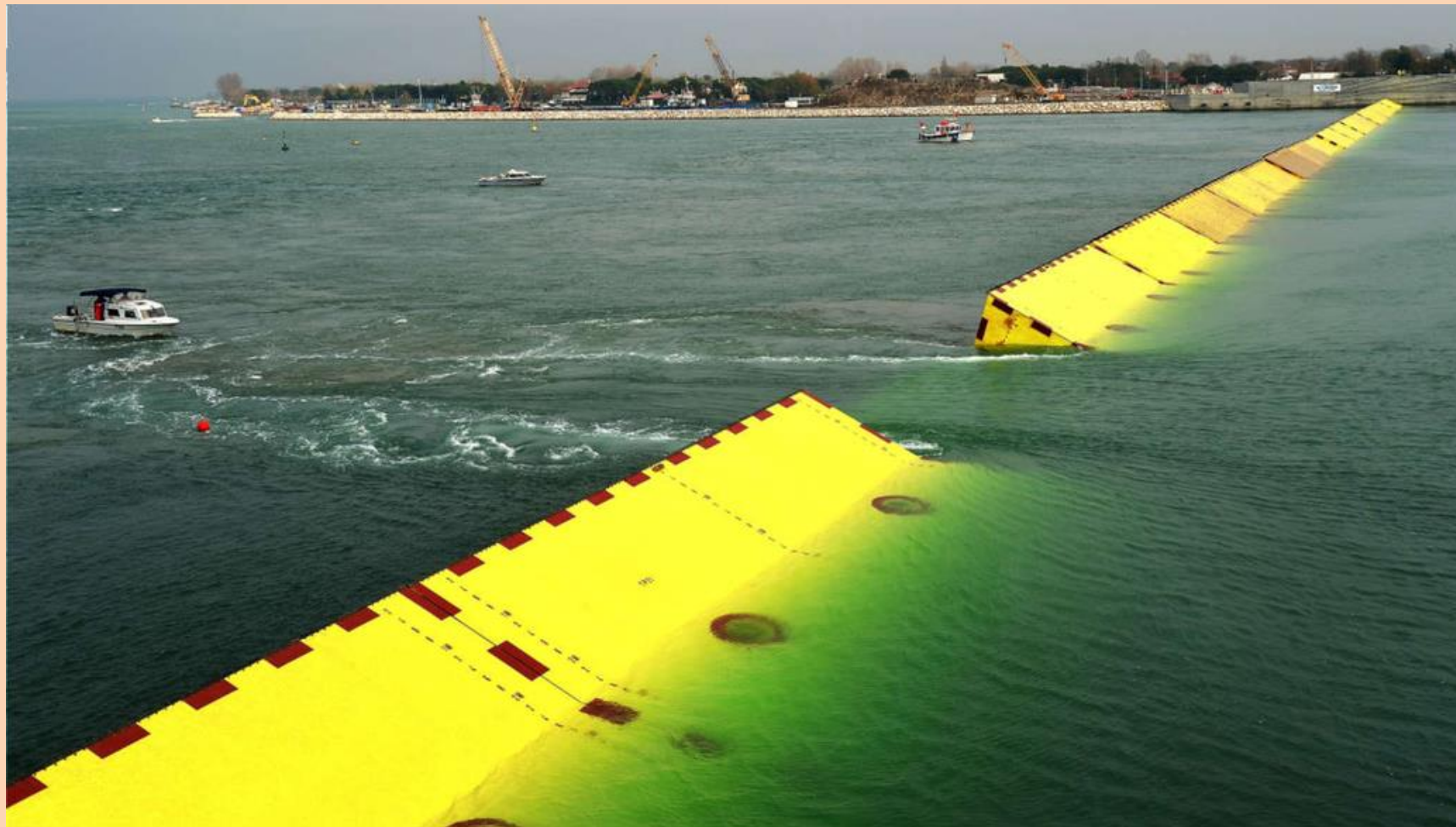
Country: The UK



its flag

IMPROVING INFRASTRUCTURE

Venice uses a barriers system to protect the city from the floods caused by the rising Adriatic sea level.



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Country: Italy



COEXISTING WITH THE PROBLEM

There are many countries that have not got time to react or have not got the financial resources to afford it.



COEXISTING WITH THE PROBLEM

Jakarta had to learn to live with floods because of the rising Java sea level.



Country: *Indonesia*



its flag



COEXISTING WITH THE PROBLEM



Kerala had to learn to live with floods because of the rising Laquedivas sea level.

But some labs have found a purification tablet which contains sodium dichloroisocyanurate (NaDCC).

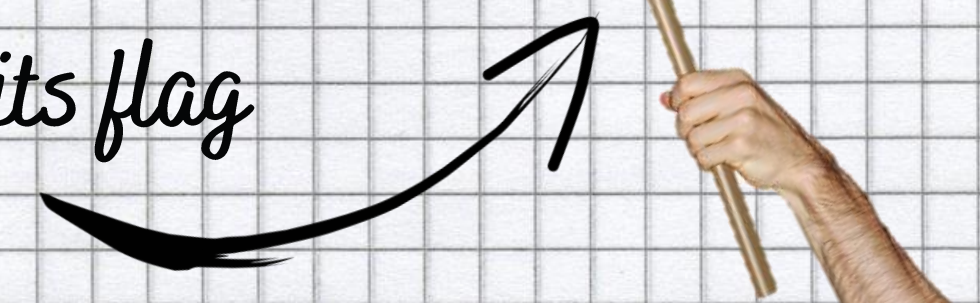


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Country: India



its flag





THE DIFFERENT FACTORS IMPACTING ON THE SOLUTIONS

THE MONETARY RESOURCE



THE CULTURAL HERITAGE



3

**Coastal cities
flood
management is
extremely urgent
no matter what
method is used**

**This not only
affects our
buildings but also
our society.**

CONCLUSION

**Engineers must
work towards
developing a
sustainable
future.**

**Because of global
warming, solving
the flood issue has
become a priority.**



THANK YOU!

If you run from a leaking roof, you'll end up with a flood.

Mahmoud Abbas

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