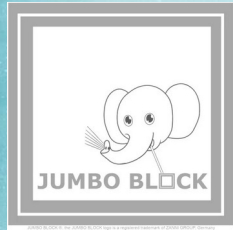


# Adaptation is the Solution

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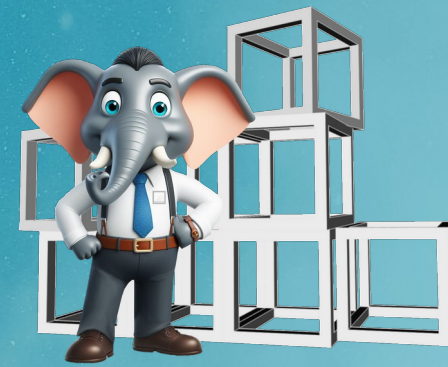


The Weather extremes will increase.  
Cause: Climate change



# Challenge for our Future

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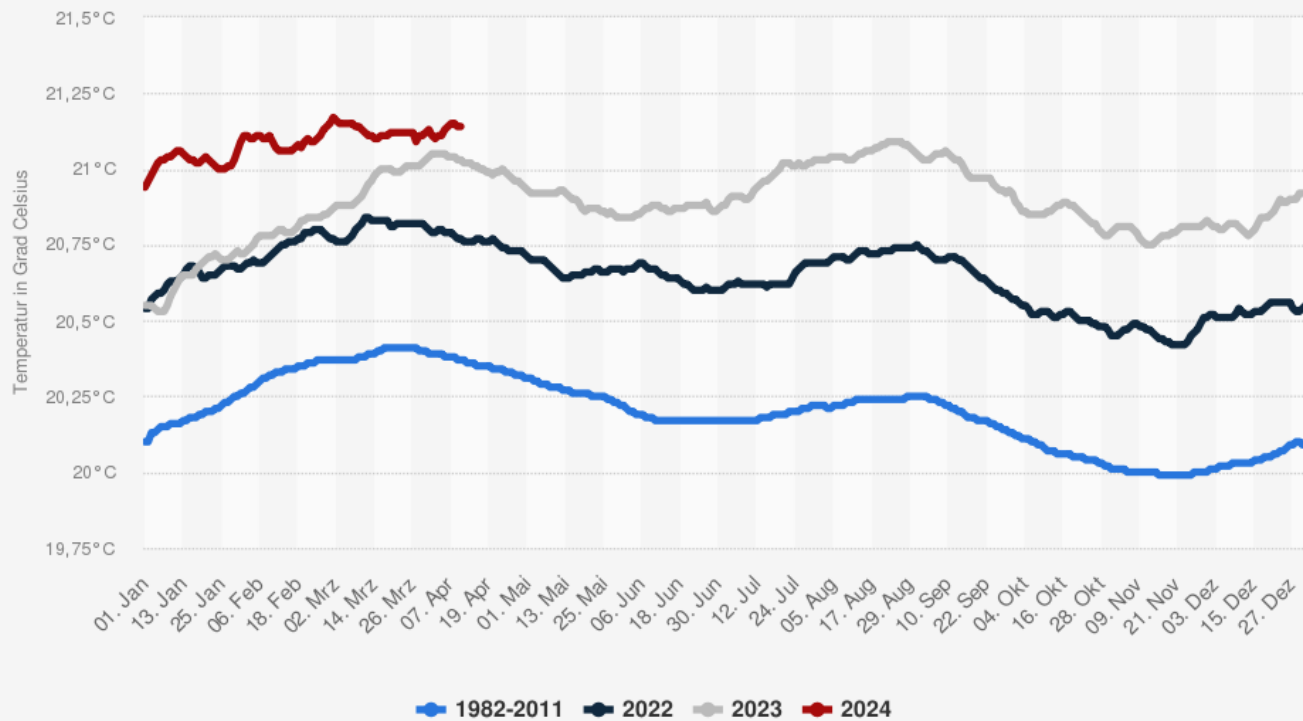


Rising temperatures, altered precipitation patterns,  
and more frequent extreme events such as  
storms and floods are direct consequences of global changes.



# Evaporation is a Problem

Tägliche mittlere Oberflächentemperatur der Ozeane (SST) im Mittel der Jahre 1982 bis 2011 sowie in den Jahren 2022 bis 2024



Quellen  
Climate Reanalyzer; National Oceanic and Atmospheric Administration  
© Statista 2024

Weitere Informationen:  
Weltweit; Stand: April 2024

## Oceans

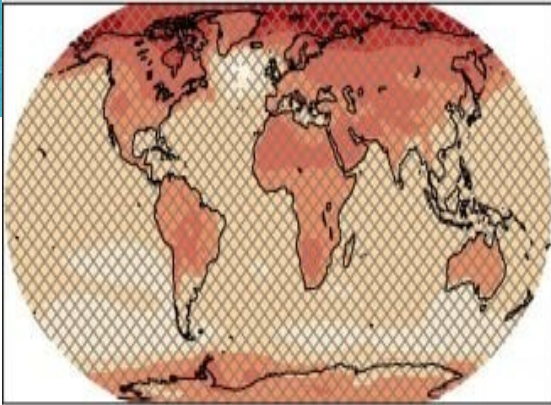
The surface temperature of the world's oceans continued to reach new record levels in the first months of 2024. This continues a trend that had already begun in 2023.

Quelle/Source: Statista

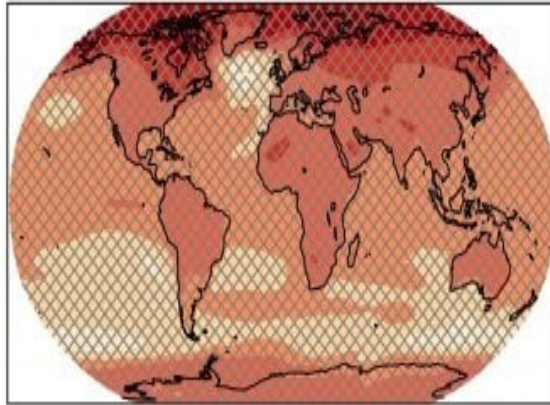


# Precipitation patterns

Mean temperature change  
at 1.5°C GMST warming



Mean temperature change  
at 2.0°C GMST warming



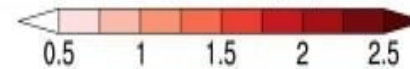
Difference in mean temperature  
change (2.0°C - 1.5°C)



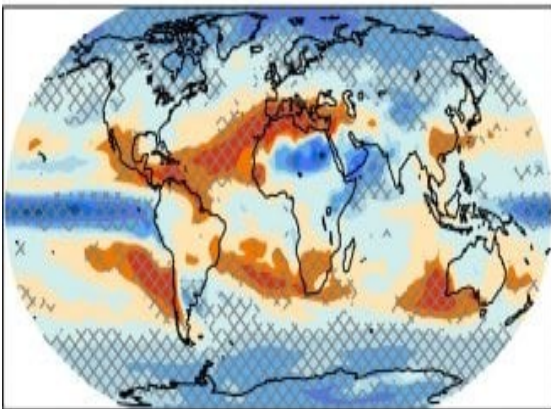
Temperature (°C)



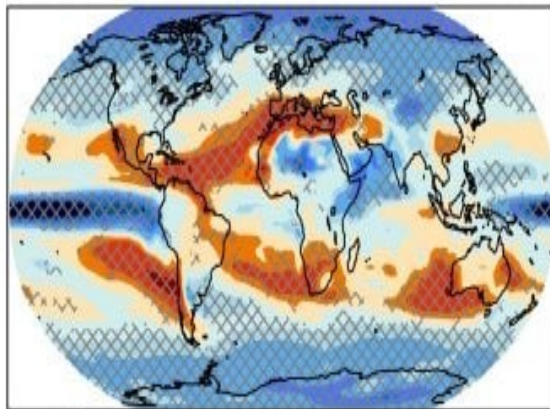
Temperature (°C)



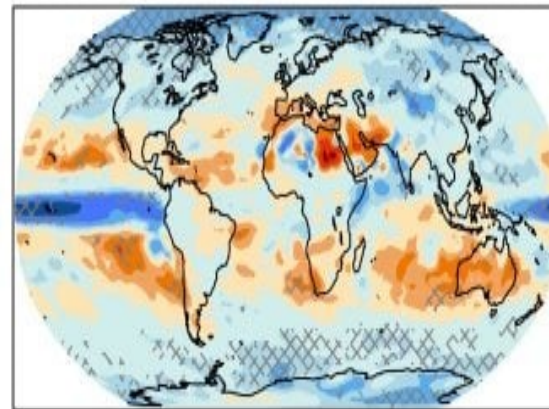
Mean precipitation change  
at 1.5°C GMST warming



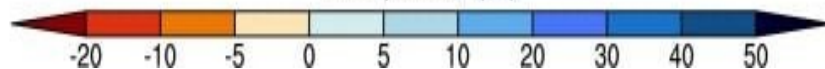
Mean precipitation change  
at 2.0°C GMST warming



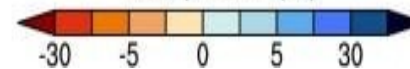
Difference in mean precipitation  
change (2.0°C - 1.5°C)



Precipitation (%)



Precipitation (%)



## Changes

- Heavy rain events
- Flooding
- Drought

Quelle/Source:  
IPPC



# Consequences of Extreme Weather Events

Adapt or perish



Unprotected city



Protected city

The weather extremes will increase. There is no turning back!

We have a Solution: JUMBO BLOCK®

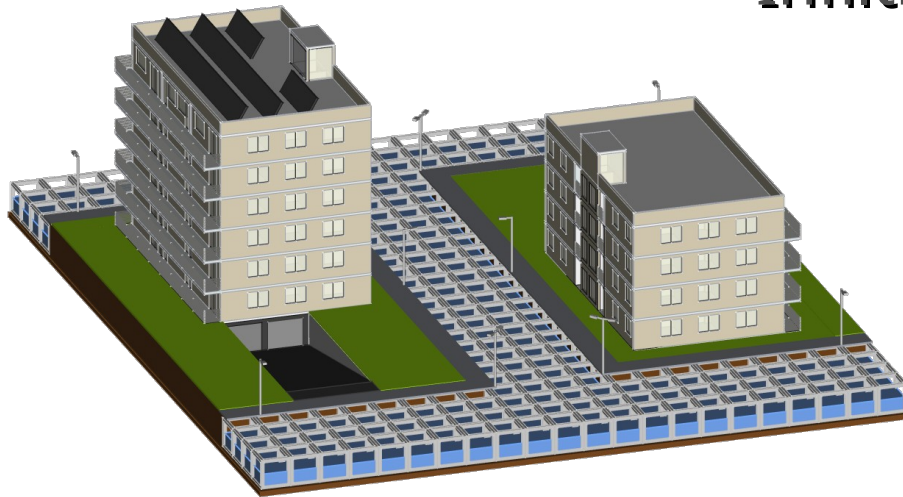
We Have a Choice

## Our Solution

Flood protection

Water storage

Infiltration



Our groundbreaking technology transforms roads into versatile surfaces that not only serve as massive retention basins but also effectively prevent flooding.

The limitless retention capacity provides an outstanding opportunity to adapt flexibly to changing climate and weather conditions.



## FLOOD PROTECTION THROUGH RETENTION

Prevention of flooding

Planning area: 55 x 65 m

Building area: 2 x 326.6 m<sup>2</sup>

Lanes: 2 x 4.5 m, 4 x 3.75 m

Substructure of the road

48 Jumbo Block Standard (13.9 m<sup>3</sup>/block)

116 Jumbo Block XL (27.6 m<sup>3</sup>/block)

82 heavy duty plates and sealing systems

Available retention volume: 3868.8 m<sup>3</sup>

Expandable !

Flood height: 0.0 m



## FLOODING WITHOUT RETENTION

Planning area: 55 x 65 m

Building area: 2 x 326.6 m<sup>2</sup>

Lanes: 2 x 4.5 m, 4 x 3.75 m

Available retention volume: 0 m<sup>3</sup>

Flood height: 1.02 m



Movie: [YouTube](#)

# Retention Example of



# Application examples

Cities and Villages: Minimize flooding for the safety of residents.

Port areas: Avoid damage from heavy rain events.

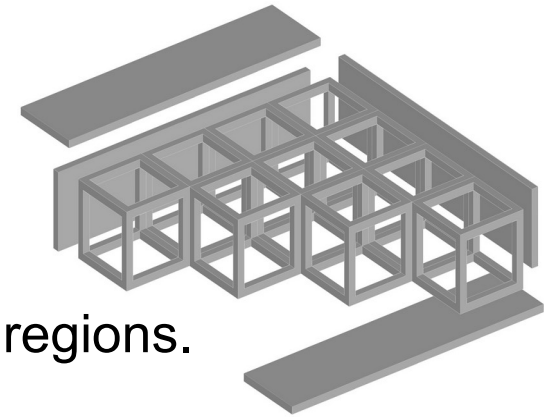
Airports: Prevent flooding on the airport site.

Farmland: Store rainwater for fields, especially in dry regions.

Industrial and chemical areas: Protecting plants against flooding.

Retention areas on rivers: Regulate water flow and counteract flooding.

Dry areas: Store rainwater, irrigate green areas, obtain drinking water.



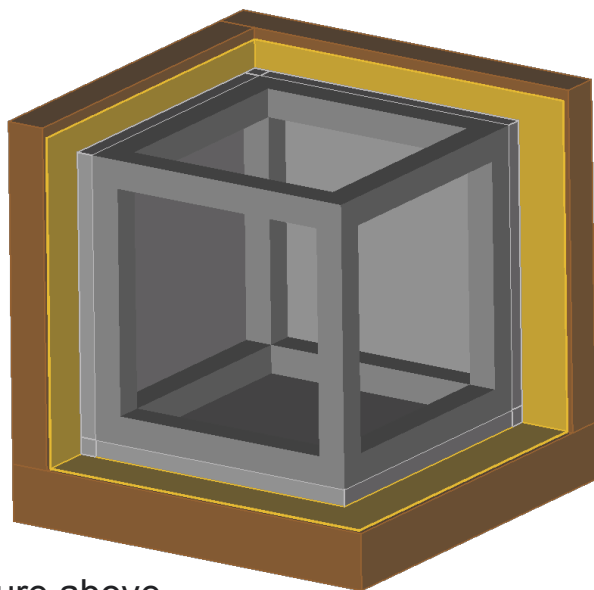
## Conclusion

The planning possibilities with the JUMBO BLOCK® System are limitless and allow you to use it in a variety of environments and circumstances to almost all your requirements.



### Advantages of geo-building materials

- Efficient erosion control
- Environmentally friendly
- Fast and long-lasting sealing
- Flexible solution
- Self-healing in case of damages
- Versatile applications



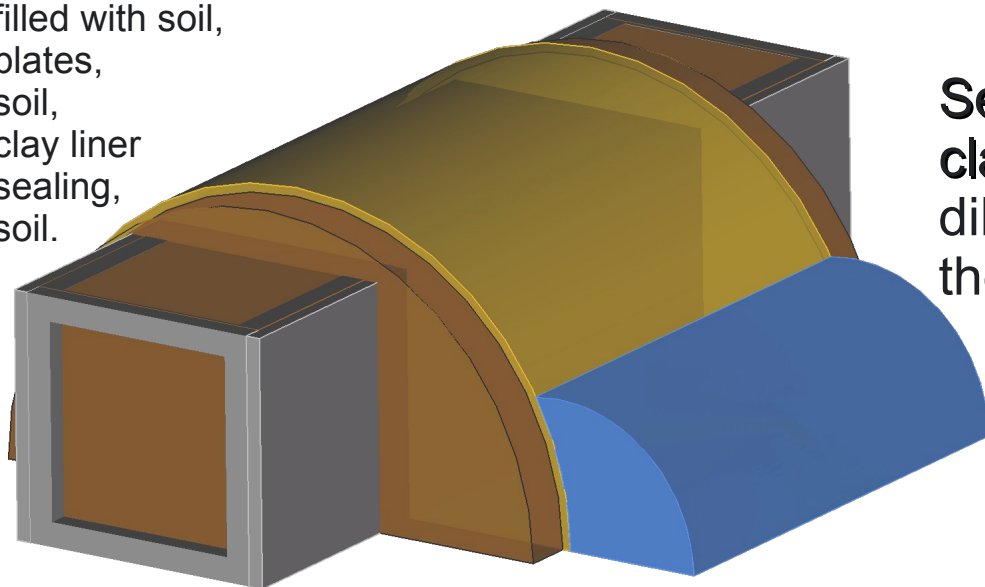
Picture above  
Structure: JUMBO BLOCK®,  
plates,  
clay liner sealing,  
soil

### Example of using excavation soil

#### Construction of a fortified dike:

Excavation soil can be used to construct fortified dikes made of rows of JUMBO BLOCKs.

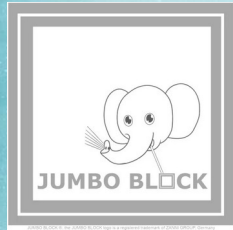
Picture below  
Structure: JUMBO BLOCK®,  
filled with soil,  
plates,  
soil,  
clay liner  
sealing,  
soil.



**Sealing with geotextile clay liner:** Clay liner seals dikes and increases their stability.

**This creates a flood protection wall over 3.5 meters high.**





# Thank you

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