



Ingangsetzung einer

planetarischen

Wirklichkeitsverschiebung



# Verlust der Biodiversität



Vielfalt an Fauna und Flora Planeten sinkt – Ursachen

Industrielle Landwirtschaft

Urbanisierung

Klimawandel



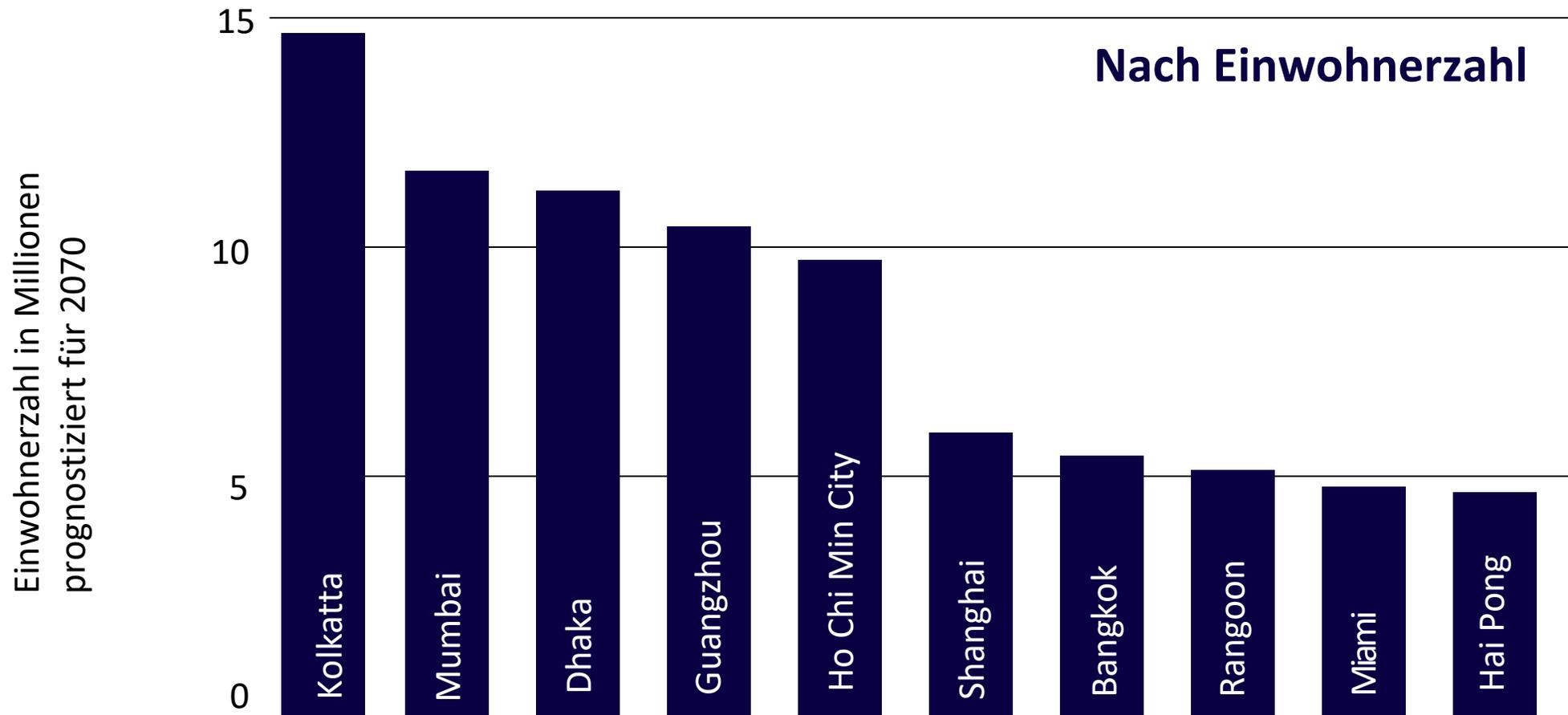
# Radikale Veränderung der Wasserkreisläufe



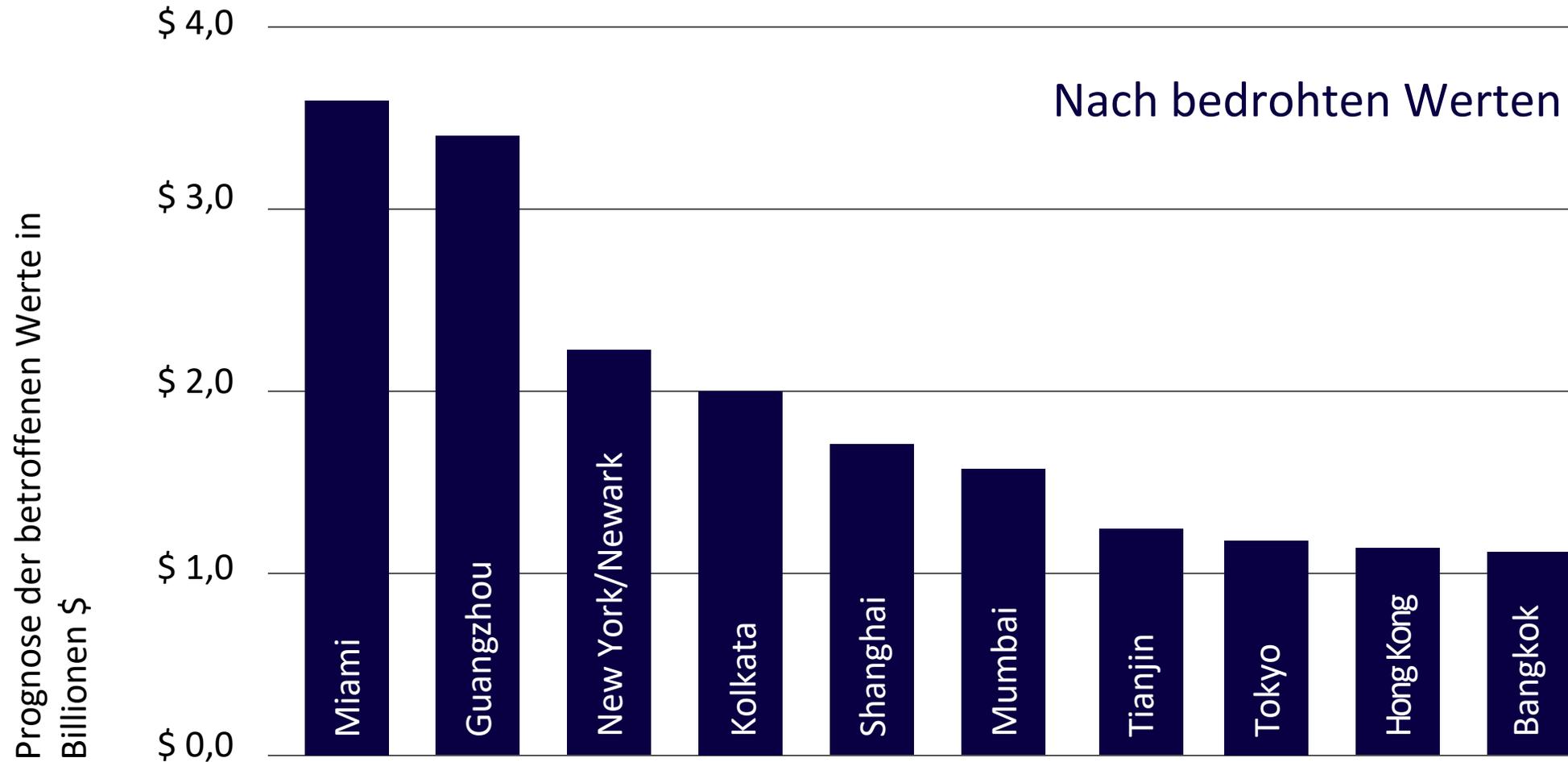
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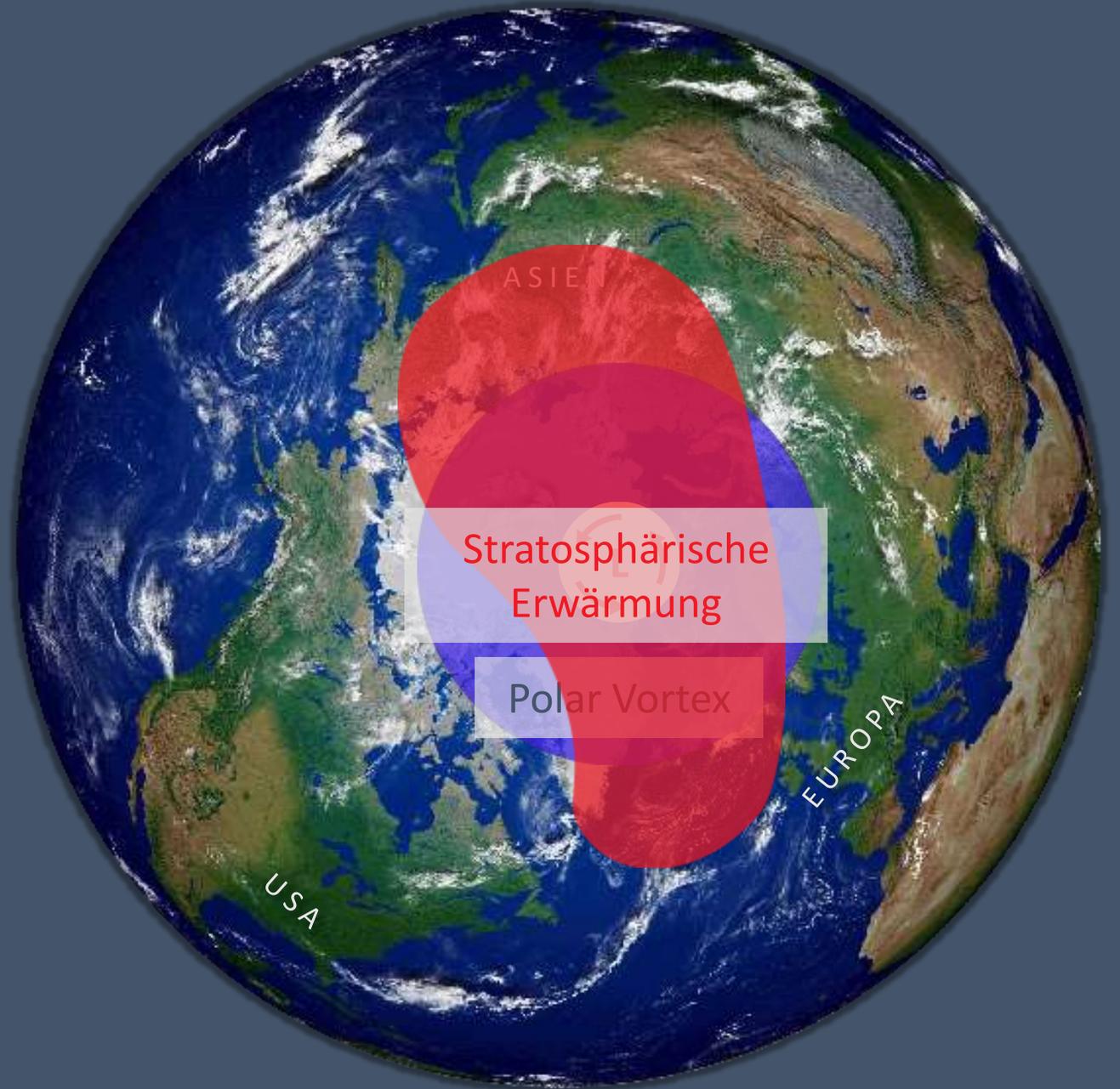
# Top 10 Städte die bis 2070 vom Anstieg des Meeresspiegels betroffen sind



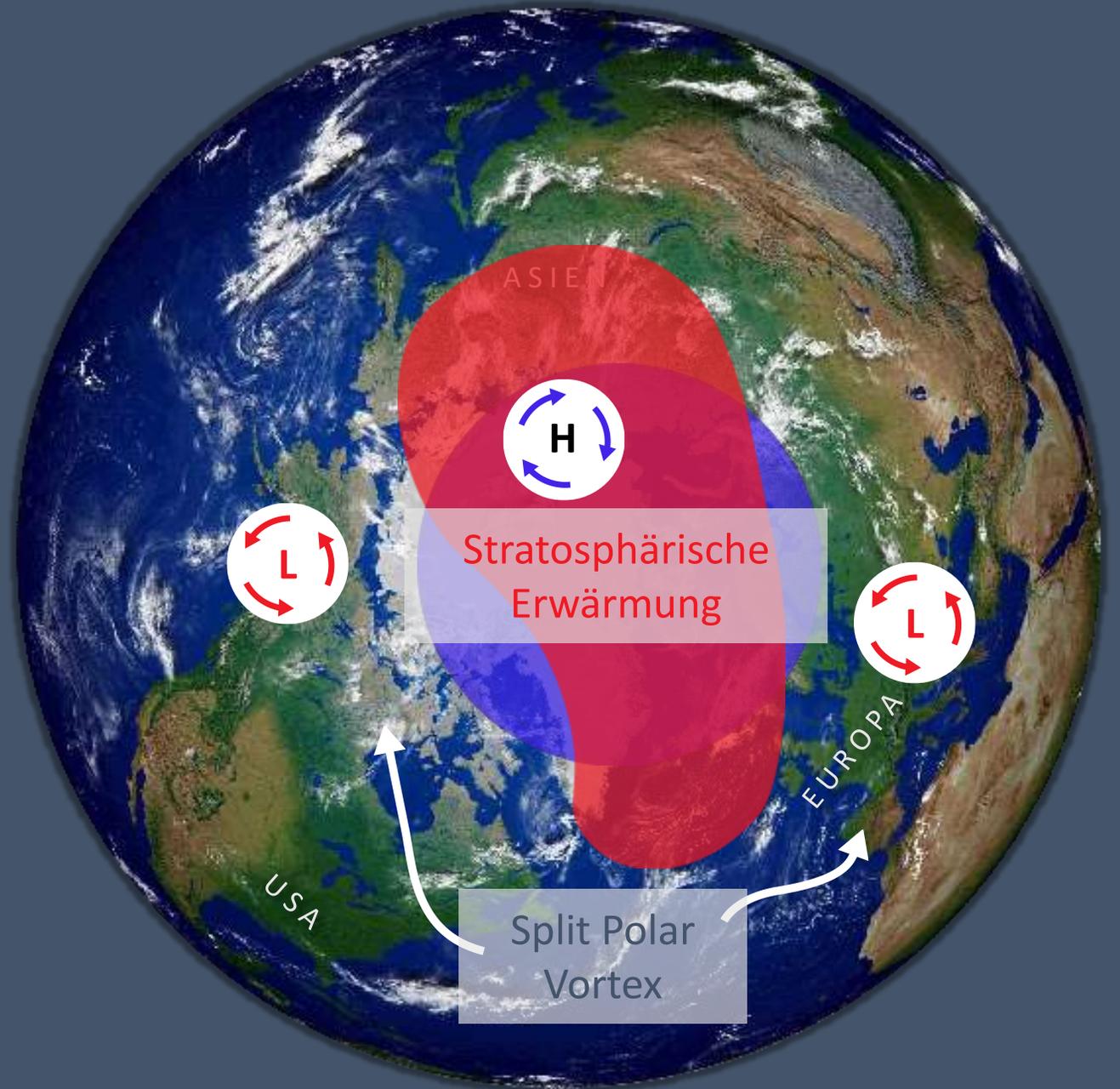
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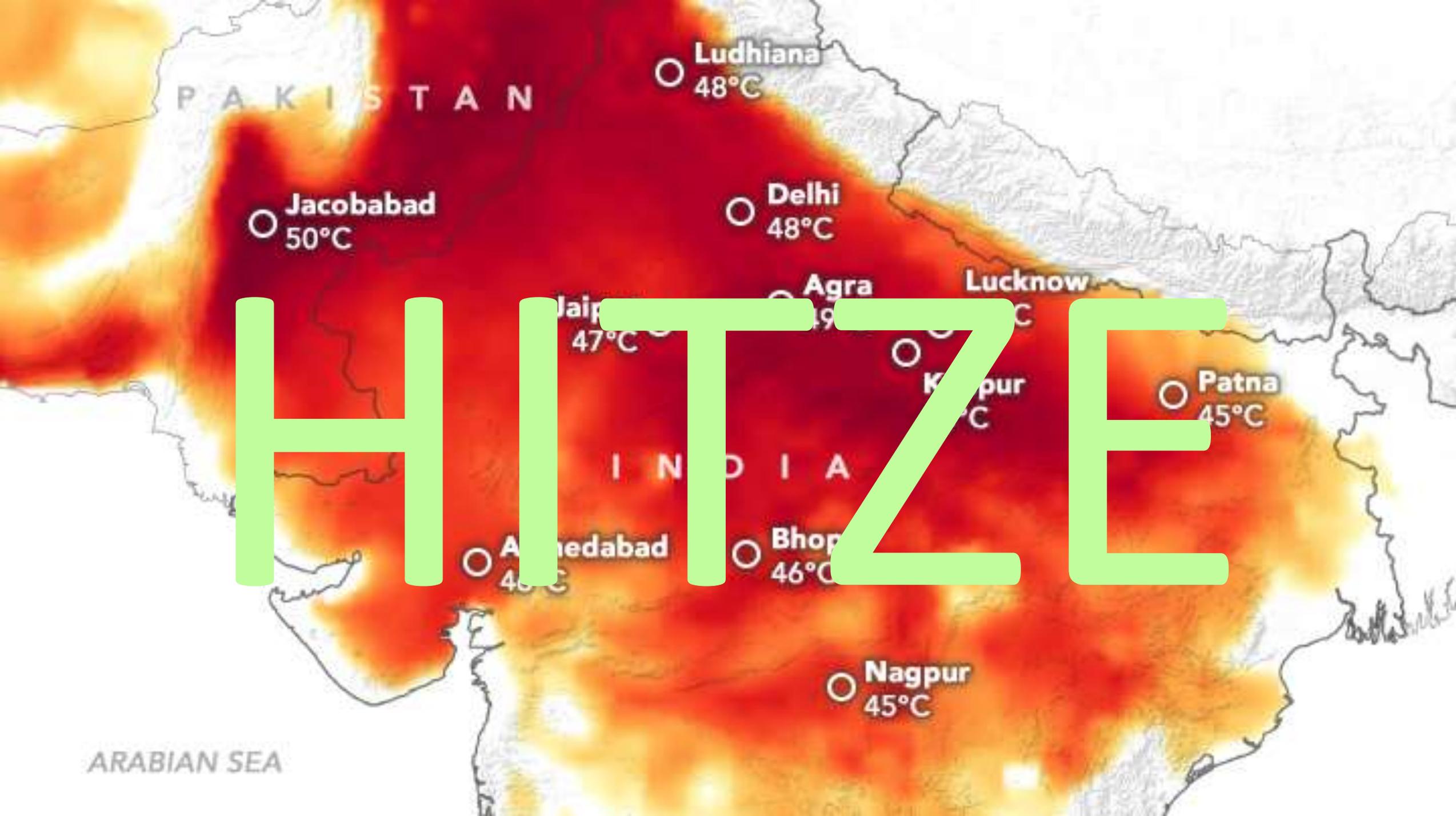


Der Polar Vortex  
splittet sich in den  
Jahren 2018 und 2019,  
was Teile Nordamerikas  
und Europas massiv  
abkühlte und die Arktis  
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# HITZE

ARABIAN SEA

PAKISTAN

Ludhiana  
48°C

Jacobabad  
50°C

Delhi  
48°C

Jaipur  
47°C

Agra  
49°C

Lucknow

Kanpur

Patna  
45°C

INDIA

Ahmedabad  
46°C

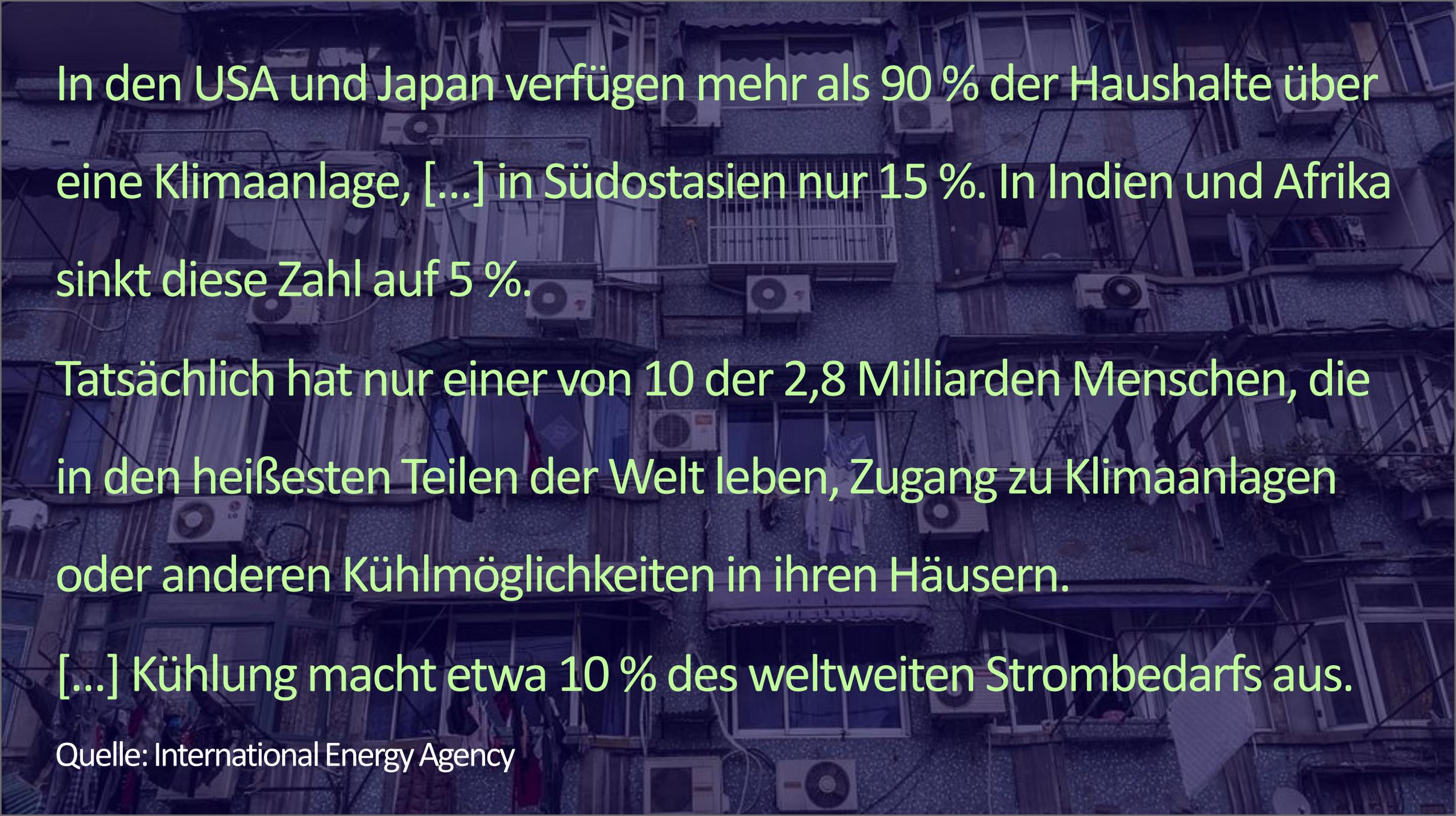
Bhopal  
46°C

Nagpur  
45°C

Ozeane

Landmasse

Erdoberfläche



In den USA und Japan verfügen mehr als 90 % der Haushalte über eine Klimaanlage, [...] in Südostasien nur 15 %. In Indien und Afrika sinkt diese Zahl auf 5 %.

Tatsächlich hat nur einer von 10 der 2,8 Milliarden Menschen, die in den heißesten Teilen der Welt leben, Zugang zu Klimaanlage oder anderen Kühlmöglichkeiten in ihren Häusern.

[...] Kühlung macht etwa 10 % des weltweiten Strombedarfs aus.

Quelle: International Energy Agency





Faktor 1

Verlust der  
Biodiversität

Faktor 2

Veränderung der  
Wasserkreisläufe

Faktor 3

Risiko der Disruption  
globaler Windbänder

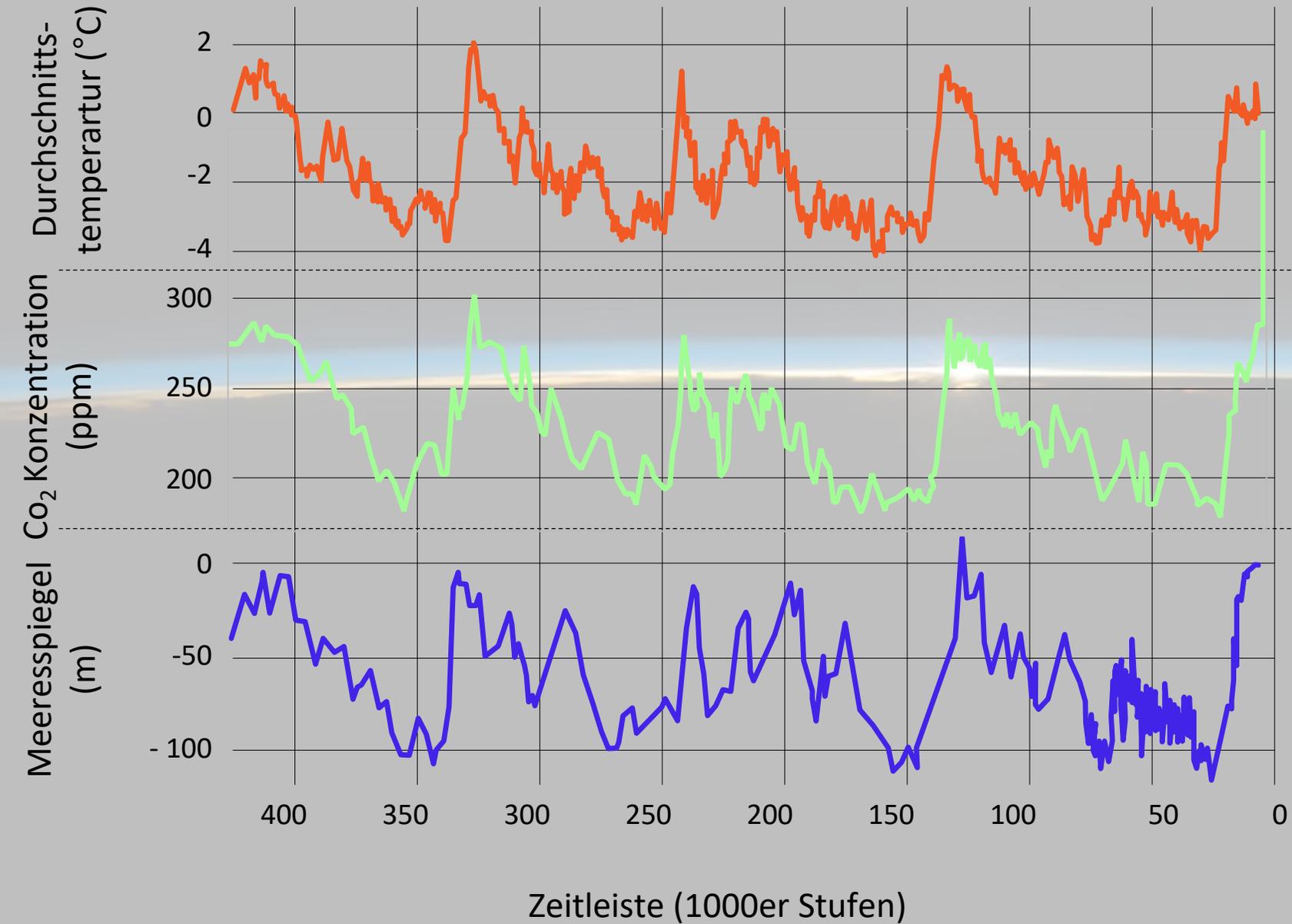
Faktor 4

Vehemente Hitze

Grundlage des Lebens

# Atmosphäre



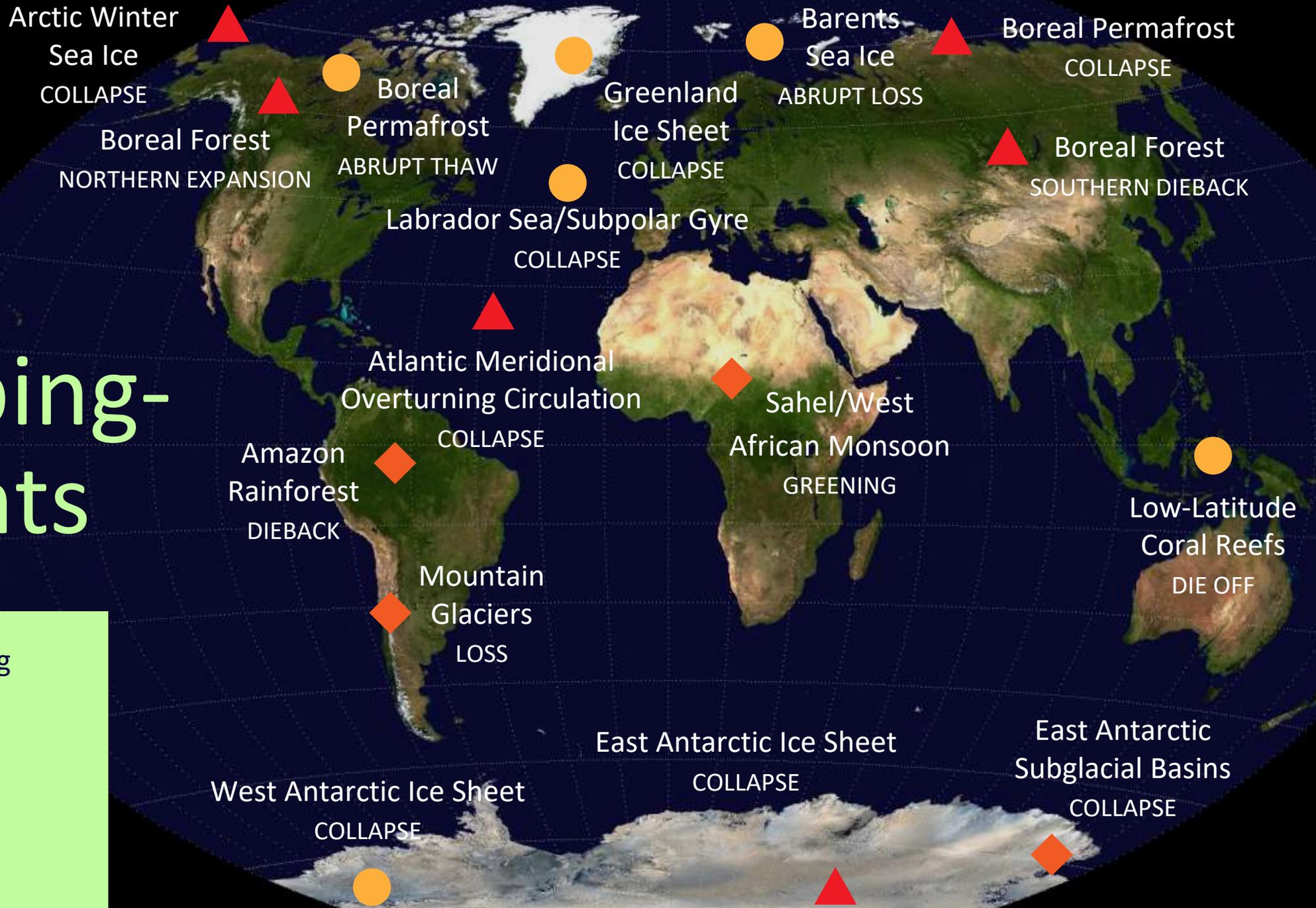


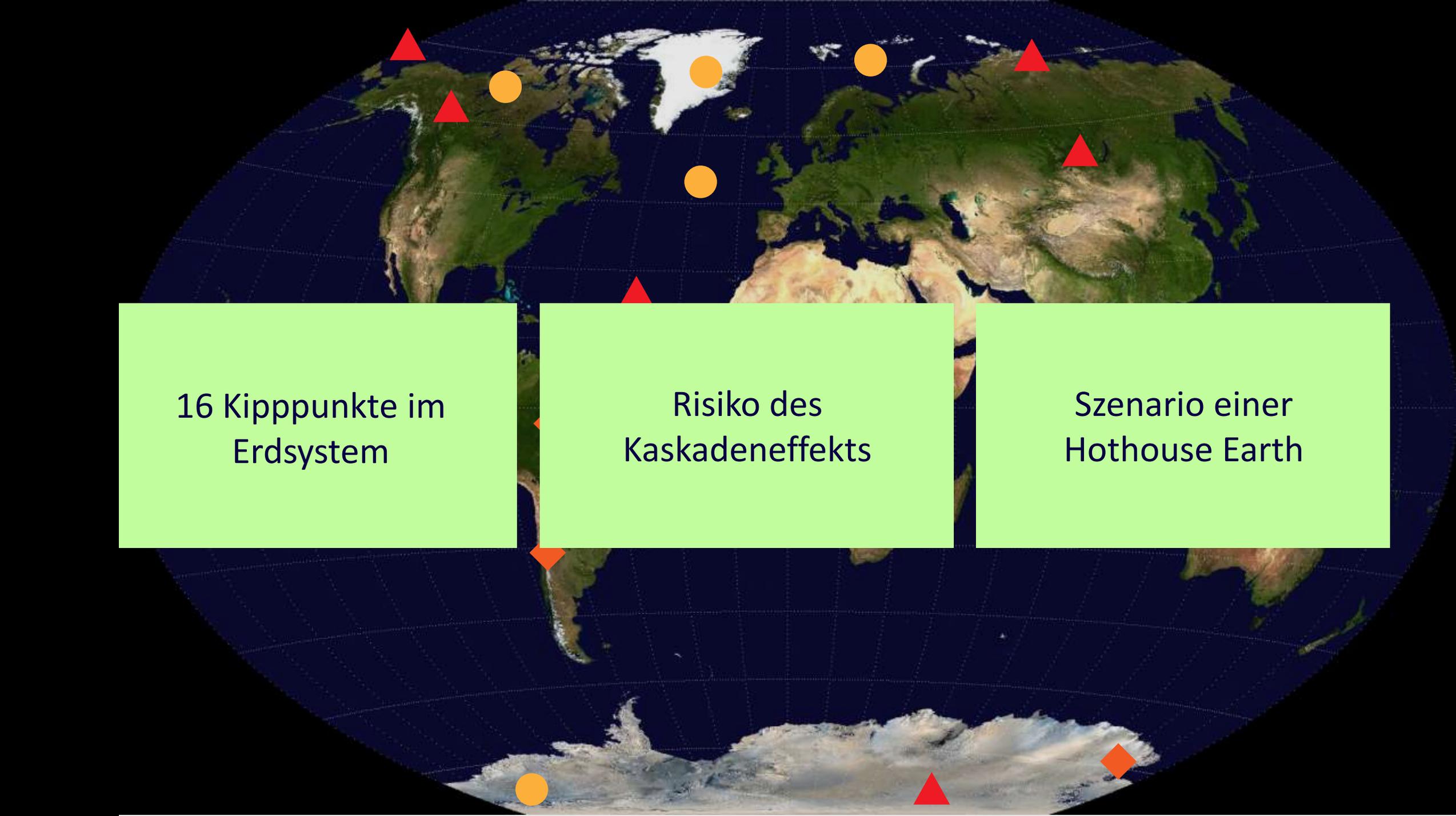
**CO<sub>2</sub> Konzentration  
wechselhaft  
Aktuell ca. 420 ppm**

# 16 Tipping-points

## Global Warming Thresholds

- <math>< 2^{\circ}\text{C}</math>
- ◆ <math>2\text{-}4^{\circ}\text{C}</math>
- ▲ <math>\geq 4^{\circ}\text{C}</math>





16 Kipppunkte im  
Erdsystem

Risiko des  
Kaskadeneffekts

Szenario einer  
Hothouse Earth



# Klimaabkommen Paris 2015

Temperaturanstieg bis 2100 auf max. 2 Grad begrenzen.

Ziel: 1,5 Grad



Mitigation



Adaptation



Loss and damage

Willkommen im Zeitalter der Adaption  
Wasser ist für Adaption das, was  
Emissionen für Mitigation ist.

Adil Najam  
Präsident WWF



# THE ECONOMICS OF WATER

Valuing the Hydrological Cycle  
as a Global Common Good

Executive  
Summary

## Recommendations

The GCEW offers a set of recommendations, to value and govern water so as to stabilise the hydrological cycle, enable food security and human dignity, and keep the Earth system safe for humanity. Underpinning all our recommendations is the need for justice and equity to be key principles intrinsic to managing water more efficiently, dynamically and sustainably, and not merely an add-on.

**1. We must govern the hydrological cycle as a global common good**, recognising our interdependence through both blue and green water flows; the deepening interconnections between the water crisis, climate change, and the loss of the planet's natural capital; and how water flows through all our 17 Sustainable Development Goals.

**2. We must recognise the minimal water requirements of water for a dignified life. This report offers 4,000 l/p/d as a reference for further discussion.**

- New water provision should focus on those left behind first.

**3. We must value water, the Earth's most precious resource, to reflect its scarcity, ensure its efficient and equitable use, and preserve its critical role in sustaining all other natural ecosystems.**

- We must price water properly to incentivise its conservation, particularly by the largest users. Today's massive subsidies that contribute to water's overuse in many sectors and environmental degradation should be redirected towards water-saving solutions, protecting and restoring freshwater ecosystems, and ensuring access to clean water for vulnerable communities.

- We must account for the impacts of industrial, national and global development on both blue and green water resources.

- We must also embed the value of green water systematically in decisions on land use so as to better protect evapotranspiration hotspots such as forests, wetlands, and watersheds. Measuring green water's benefits, including its co-benefits, can also enable schemes for Payment for Ecosystem Services.

**4. We must shape markets to spur a wave of mission-oriented innovations, capacity-building**

**and investments across the entire water cycle**, including blue and green water, to radically transform how water is used, supplied, and conserved. These investments must be **evaluated not in terms of short-run costs and benefits, but for how they can catalyse dynamic, long-run economic and social benefits.**

**5. We must forge partnerships between all stakeholders, from local to global, around five missions that address the most important and interconnected challenges of the global water crisis, and must drive innovation in policies, institutions and technologies:**

- **Launch a new revolution in food systems** to improve water productivity in agriculture while meeting the nutritional needs of a growing world population.
- **Conserve and restore natural habitats critical to protect green water.**
- **Establish a circular water economy**, including changes in industrial processes.
- **Enable a clean-energy and AI-rich era with much lower water intensity.**
- **Ensure that no child dies from unsafe water by 2030**, by securing the reliable supply of potable water and sanitation for underserved communities.

**6. We must forge symbiotic partnerships between the public and private sectors to deliver efficient, equitable, and environmentally sustainable use of water from the start.**

- Governments should incorporate conditionalities in contracts and property rights to ensure high standards of water use efficiency and environmental protection, including corporate responsibility for watershed and water basin conservation programmes. They

Evapo-  
transpiration



**A simplified  
Illustration of the  
hydrological cycle**

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- **Launch a new revolution in food systems** to improve productivity and reduce waste, feeding a growing world population.
- **Conserve and restore natural habitats** critical to protect green water.

- **Establish a circular water economy,** including water reuse, to reduce water losses.
- **Enable a clean-energy and AI-rich era with much lower water intensity.**

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Evapo-  
transpiration

Groundwater  
Recharge

A simplified  
illustration of the  
hydrological cycle

Wir müssen den Mindestbedarf an Wasser für ein menschenwürdiges Leben anerkennen. In diesem Bericht werden 4.000 Liter/Tag/Person als Referenz [...] vorgeschlagen.

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71 % der Erdoberfläche von Wasser bedeckt

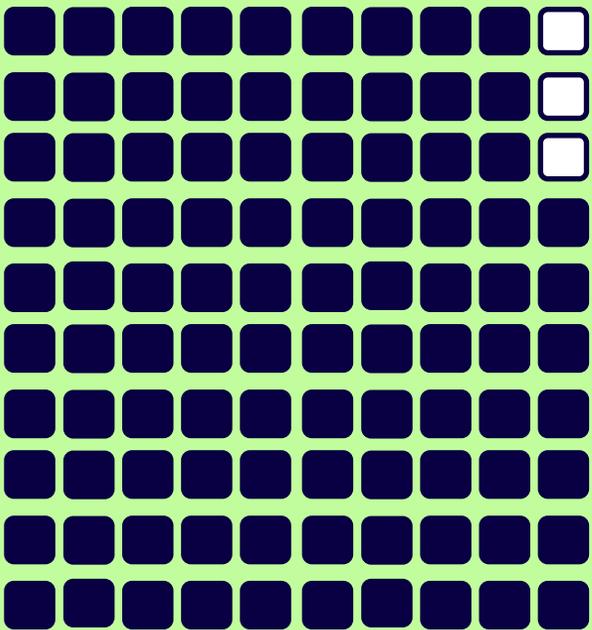


Salzwasser:

97 %



71 % der Erdoberfläche von Wasser bedeckt



Frischwasser:  
3 %

2,1 Milliarden Menschen  
ohne Zugang zu  
Trinkwasser

70 % des  
Frischwassers  
genutzt für Landwirtschaft

69 %

Frischwasser

30 %

Frischwasser

1 % des Frischwassers  
verfügbar als Trinkwasser

Gletscher & Pole

Grundwasser

