

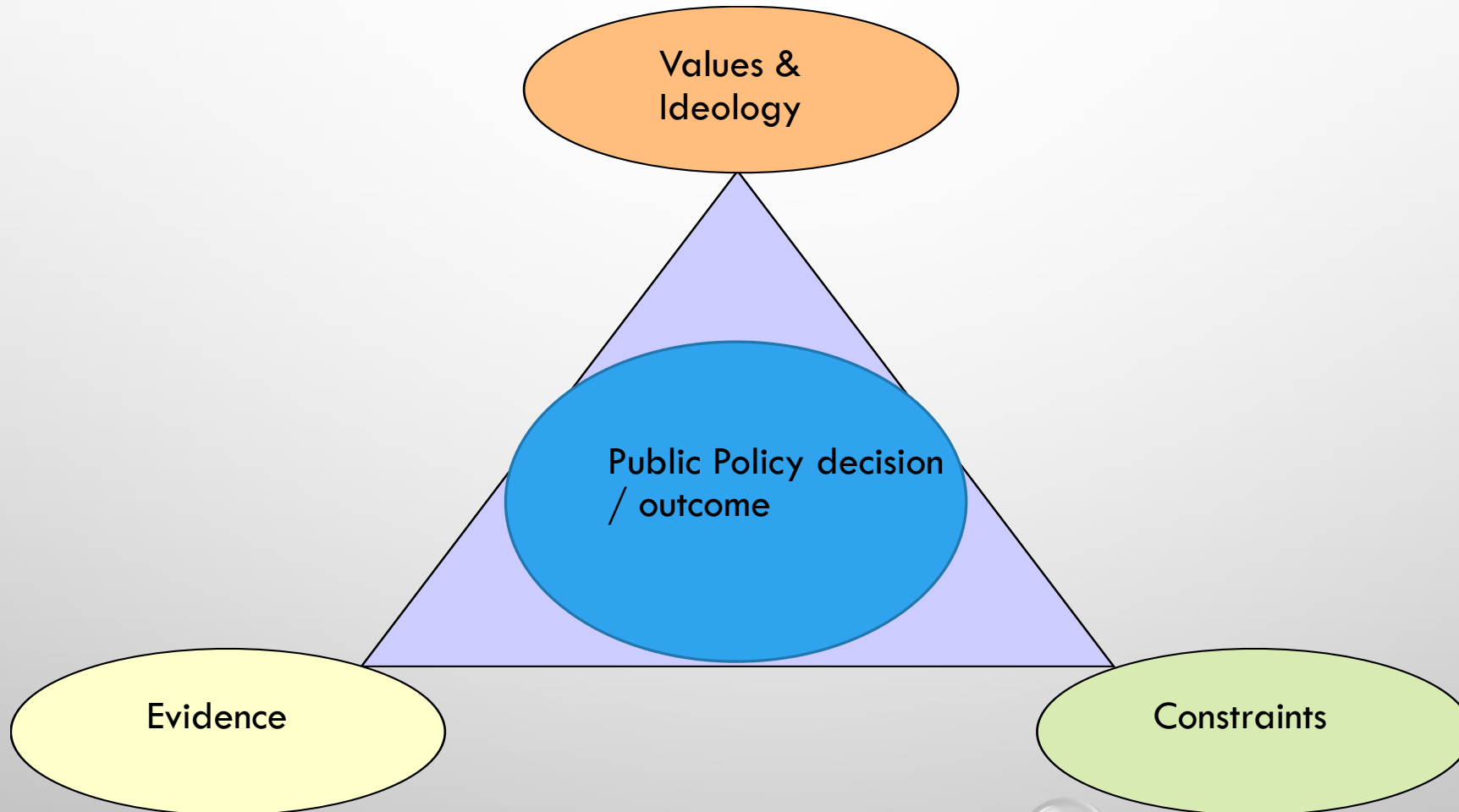
The background of the slide is a light gray gradient. It is decorated with numerous realistic water droplets of various sizes. Some droplets are at the top left, some are scattered in the middle, and a larger cluster of droplets is on the right side. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# THE GLOBAL GREEN SHIFT

SUSTAINABILITY IS NOT A CHOICE BUT A NECESSITY

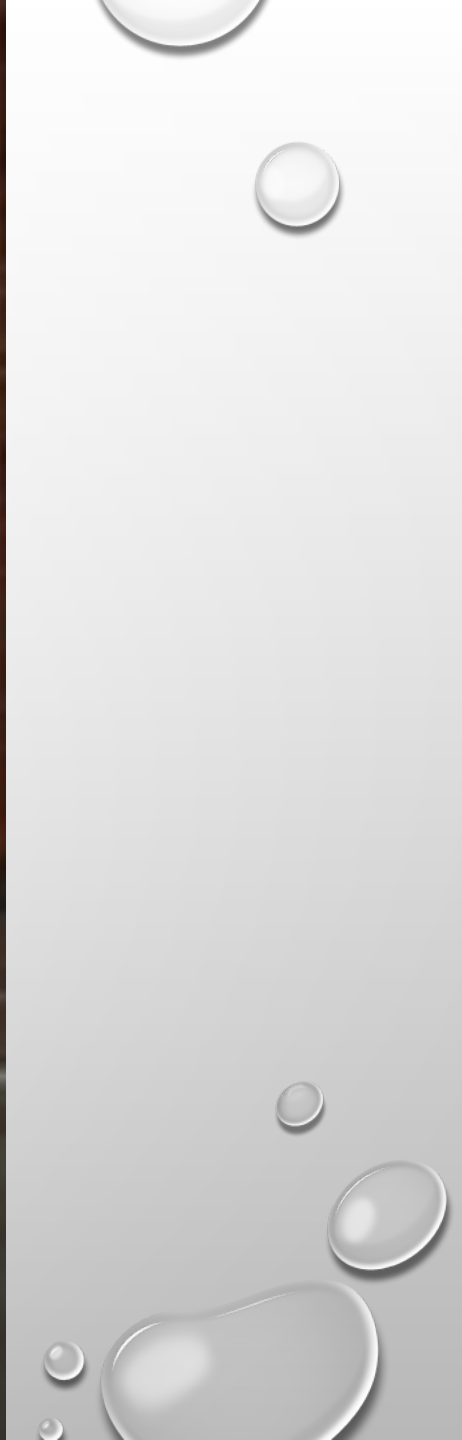
*CLIFF HAGUE*

# PUBLIC POLICY MAKING

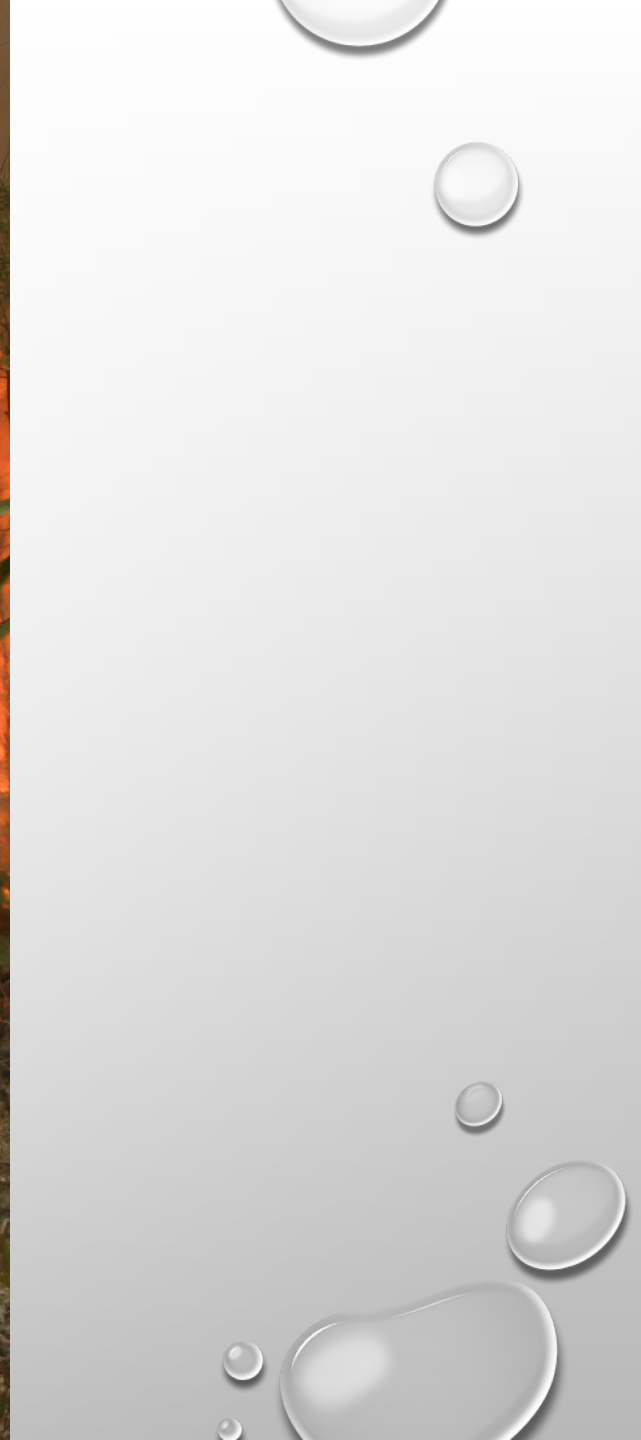




# EVIDENCE



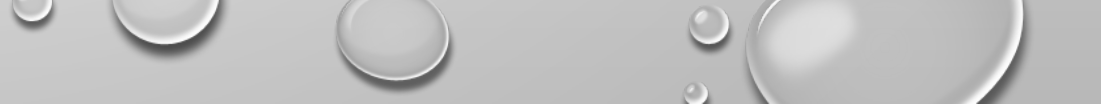








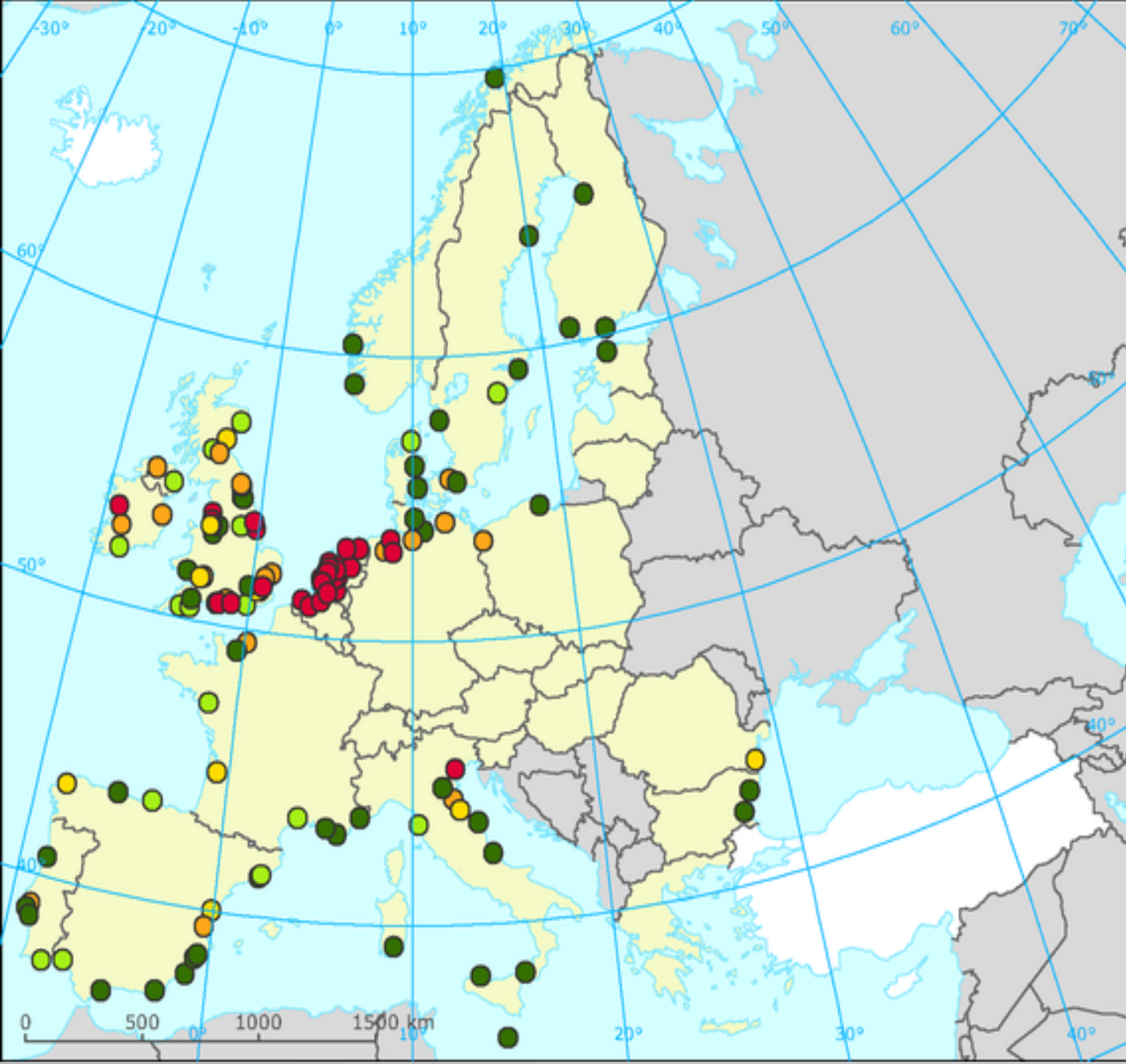












### Potential inundation exposure for coastal cities due to projected sea level rise and storm surge events

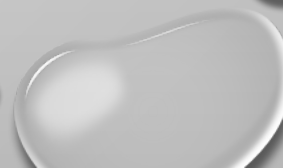
Urbanised area per core city affected (%)

- > 0-5
- 6-10
- 11-20
- 21-40
- 41-100

□ No data

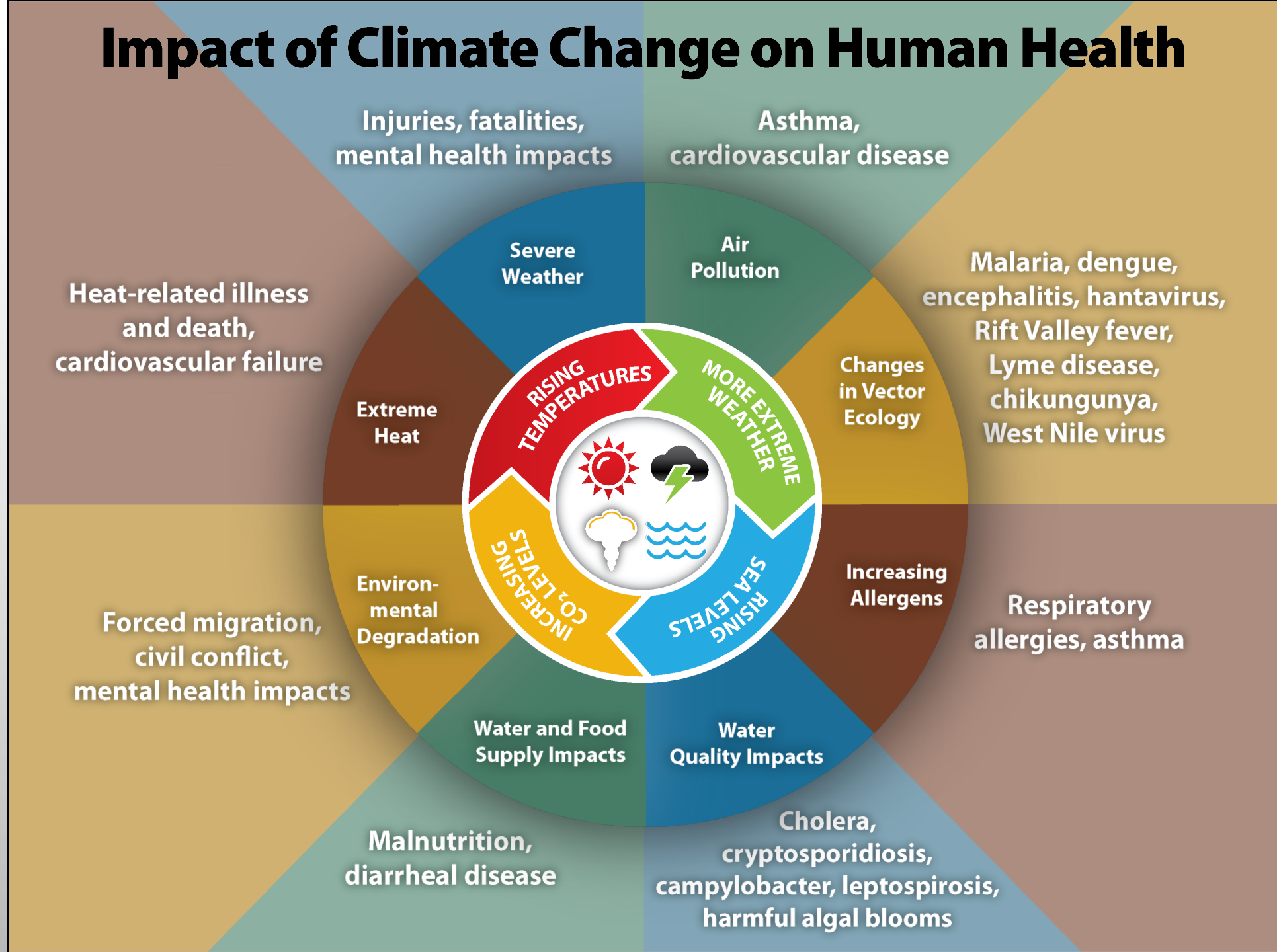
■ Outside data coverage



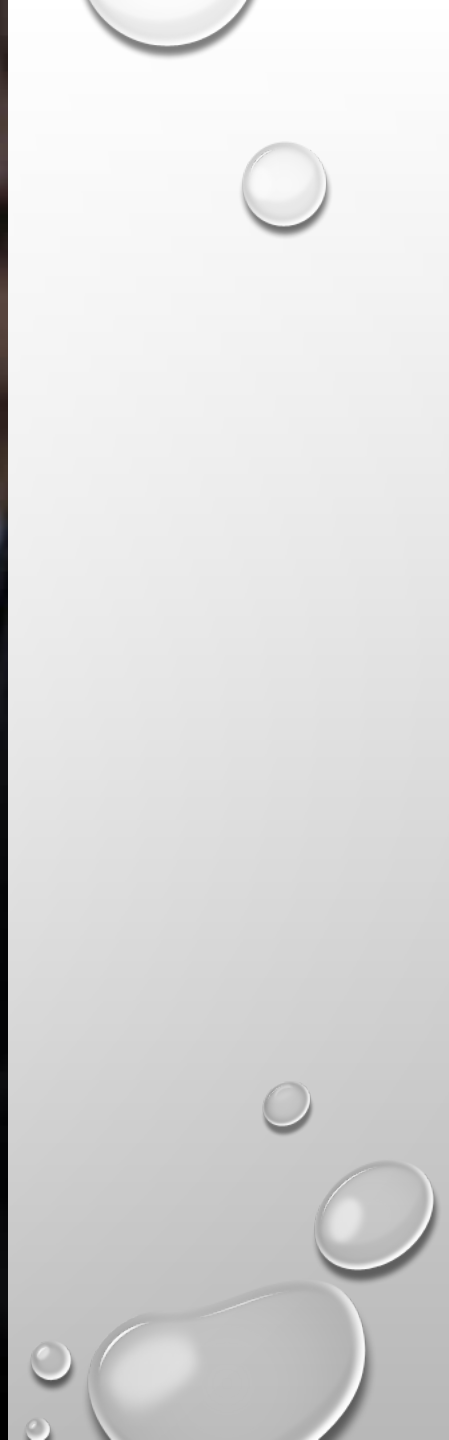




# Impact of Climate Change on Human Health



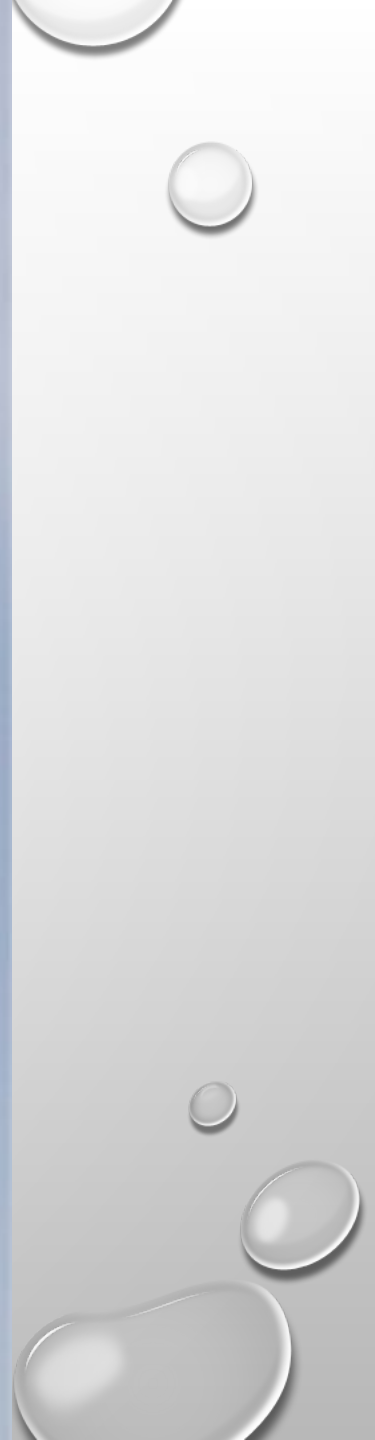
# **VALUES / IDEOLOGY**











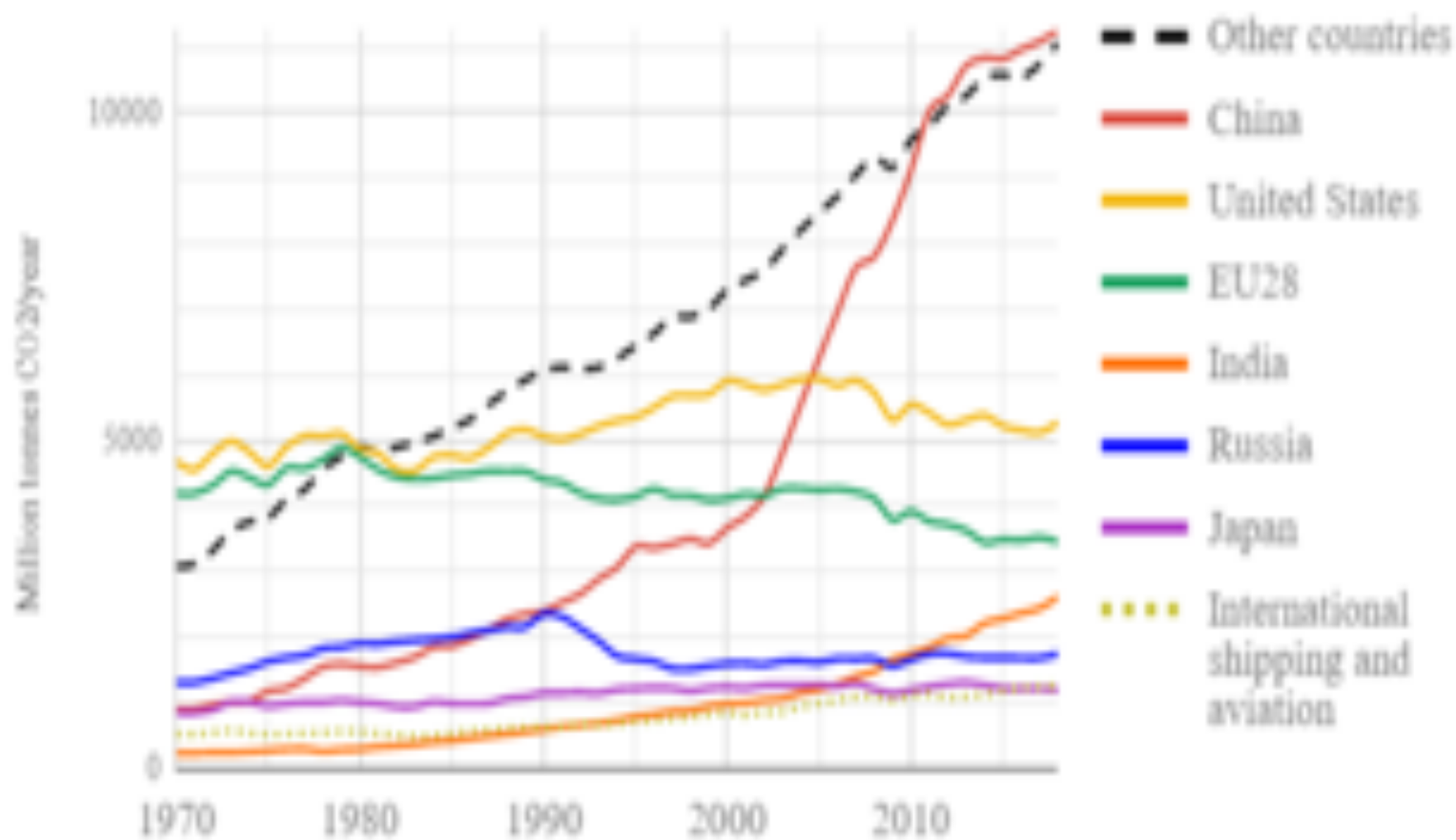


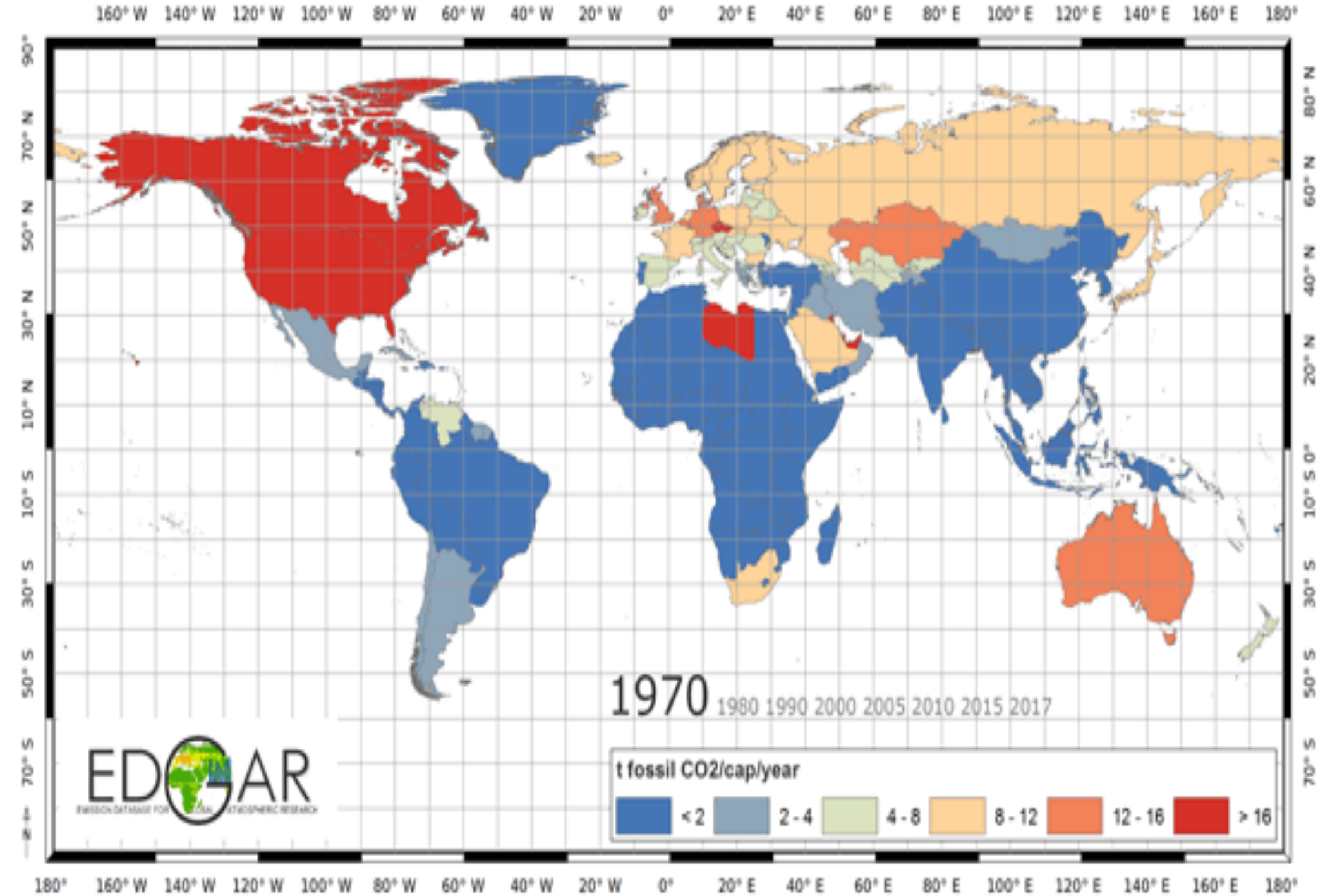


# CONSTRAINTS



# World fossil carbon dioxide emission 1970-2018





1 NO  
POVERTY



2 ZERO  
HUNGER



3 GOOD HEALTH  
AND WELL-BEING



4 QUALITY  
EDUCATION



5 GENDER  
EQUALITY



6 CLEAN WATER  
AND SANITATION



7 AFFORDABLE AND  
CLEAN ENERGY



8 DECENT WORK AND  
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



10 REDUCED  
INEQUALITIES



11 SUSTAINABLE CITIES  
AND COMMUNITIES



12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



13 CLIMATE  
ACTION



14 LIFE  
BELOW WATER



15 LIFE  
ON LAND



16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



17 PARTNERSHIPS  
FOR THE GOALS



# **SOME OPTIONS**

# THE GREEN TURN IN HERITAGE MANAGEMENT

- FROM CLIMATE CHANGE AS A THREAT TO HERITAGE BUILDINGS....





# THE GREEN TURN IN HERITAGE MANAGEMENT

- ...TO CLIMATE CHANGE  
AS A DRIVER OF  
HERITAGE  
CONSERVATION



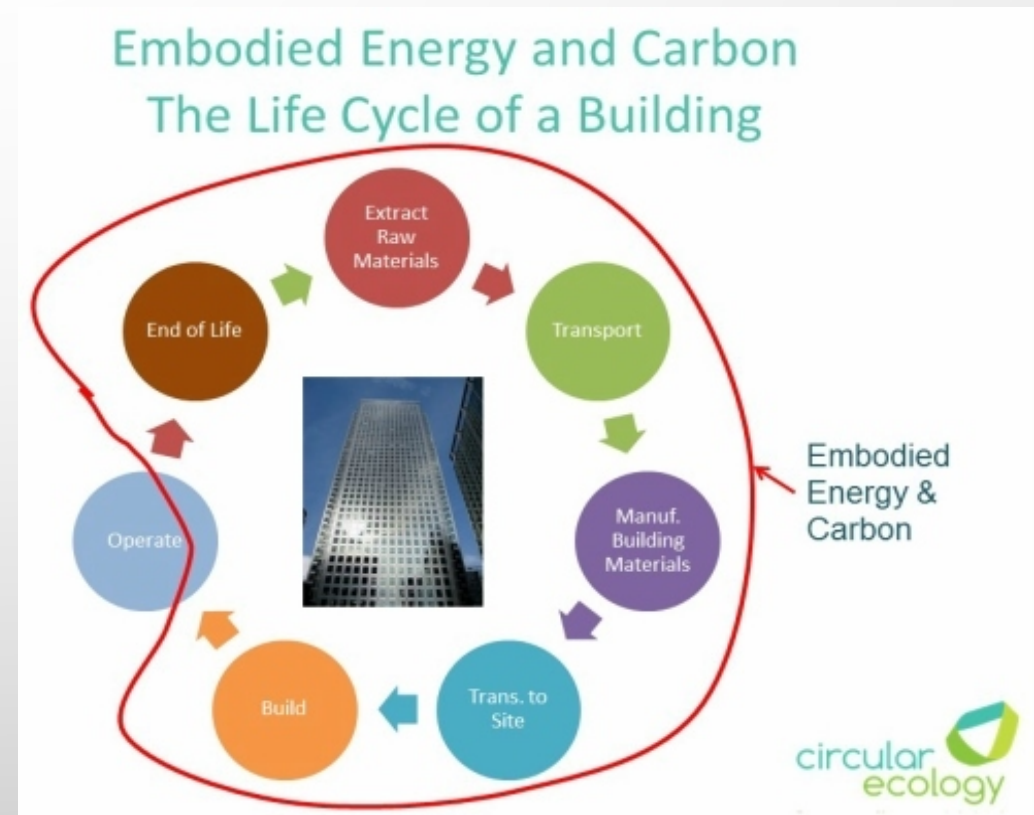
# WHOLE LIFE COSTS OF CONSTRUCTION

- NOT JUST COST OF NEW CONSTRUCTION.
- SPEND ON ENERGY DURING LIFE OF BUILDING.
- SPEND ON REPAIRS AND MAINTENANCE.
- DEMOLITION COSTS.



# EMBODIED ENERGY IN EXISTING BUILDINGS

- **EMBODIED ENERGY** IS THE **ENERGY** CONSUMED BY ALL OF THE PROCESSES ASSOCIATED WITH THE PRODUCTION OF A BUILDING, FROM THE MINING AND PROCESSING OF NATURAL RESOURCES TO MANUFACTURING, TRANSPORT AND PRODUCT DELIVERY.





## RETAIN AND RE-USE

- RETAIN, USE AND RE-PURPOSE AS NECESSARY, AS MUCH OF OUR EXISTING BUILDING STOCK AS POSSIBLE.



# RETHINK MODERN CONSTRUCTION

- KEEP NEW 'MODERN CONSTRUCTION' (CEMENT, CONCRETE, STEEL, PLASTIC ETC.) TO A MINIMUM.
- DEVELOP NEW WAYS OF BUILDING WHICH ARE NOT MASSIVELY RESOURCE-EXTRAVAGANT AND CARBON-EMITTING.



# IMPLICATIONS FOR TOURISM

- WILL TRAVEL BECOME THE NEW TOBACCO?
- SOME DESTINATIONS WILL BE LOST.
- HOWEVER, TOURISM IS A STRONG GROWTH SECTOR, ESPECIALLY FROM EAST ASIA.



Just cut down on the flying, that's all we ask

Climate change already kills over 160,000 people a year. In Africa, 185 million people will die of diseases directly attributable to climate change. Drought will leave hundreds of millions without food. You may have turned down your thermostat, but did you know aviation is the UK's fastest growing source of greenhouse gas emissions? One person's emissions for a return flight from London to Dublin are the same as leaving your kettle to boil continuously for 6 days... New York is 75 days... Sydney is 272 days.

**Flights taken by UK citizens already create the equivalent of almost 20% (twenty) of the UK's climate damage.**

The UK Government wants passenger numbers to double by 2030 and treble by 2050, destroying all other efforts to reduce emissions.

**Fly less. Take trains when you can. Use video conferencing.**  
Email 'Halt Aviation Expansion' to [david.miliband@defra.gsi.gov.uk](mailto:david.miliband@defra.gsi.gov.uk)

**airportwatch** **enoughsenough.org**

**Health Warning – Aviation Growth Will Destroy  
Our Chance of Tackling Global Warming**

# RENEWABLE ENERGY ALONE IS NOT ENOUGH

- MOVING TO RENEWABLES CAN ONLY ADDRESS 55% OF GLOBAL GREENHOUSE GAS EMISSIONS.





# CIRCULAR ECONOMY APPROACH

- SIGNIFICANT RETHINK OF CONSUMERISM / “THROW-AWAY SOCIETY”.




# RURAL AREAS AND THE GREEN SHIFT

- CITIES AND DENSITY ARE SEEN AS MORE EFFICIENT IN CARBON USE – ESPECIALLY FOR TRANSPORT.





## RURAL AREAS AND THE GREEN SHIFT

- MORE EMPHASIS ON FORESTRY.
  - RETHINKING AGRICULTURE.
  - FOOD SECURITY.
  - SUSTAINING A RURAL POPULATION.
  - RE-WILDING?
- 

# CONNECT ACROSS SCALES AND SECTORS

