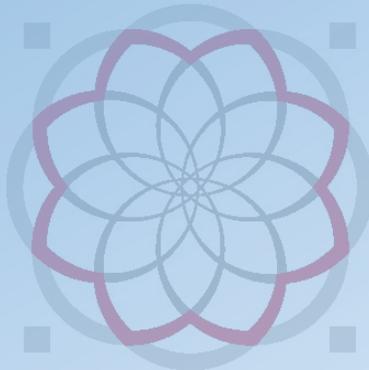


# What to Expect from COP27

A Perspective from the Arab Region



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Arab NGO Network for Development  
شبكة المنظمات العربية غير الحكومية للتنمية



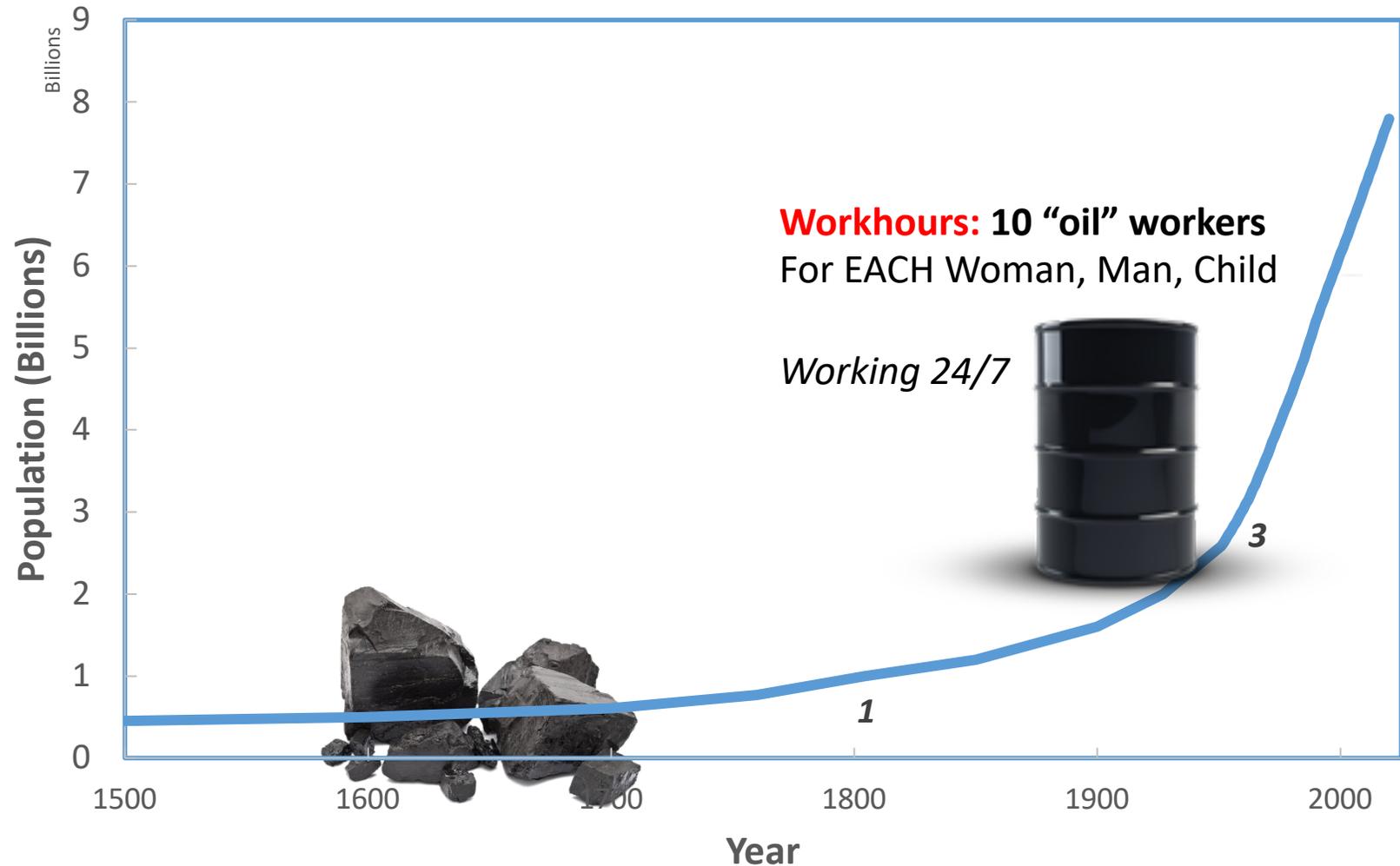
# Contents

- **First, Some Perspective**
  - A Crisis of Priorities?
- **Climate Change: Where we are now**
- **Policy Implications for the Arab Region**



# A Crisis of Priorities?

World Population



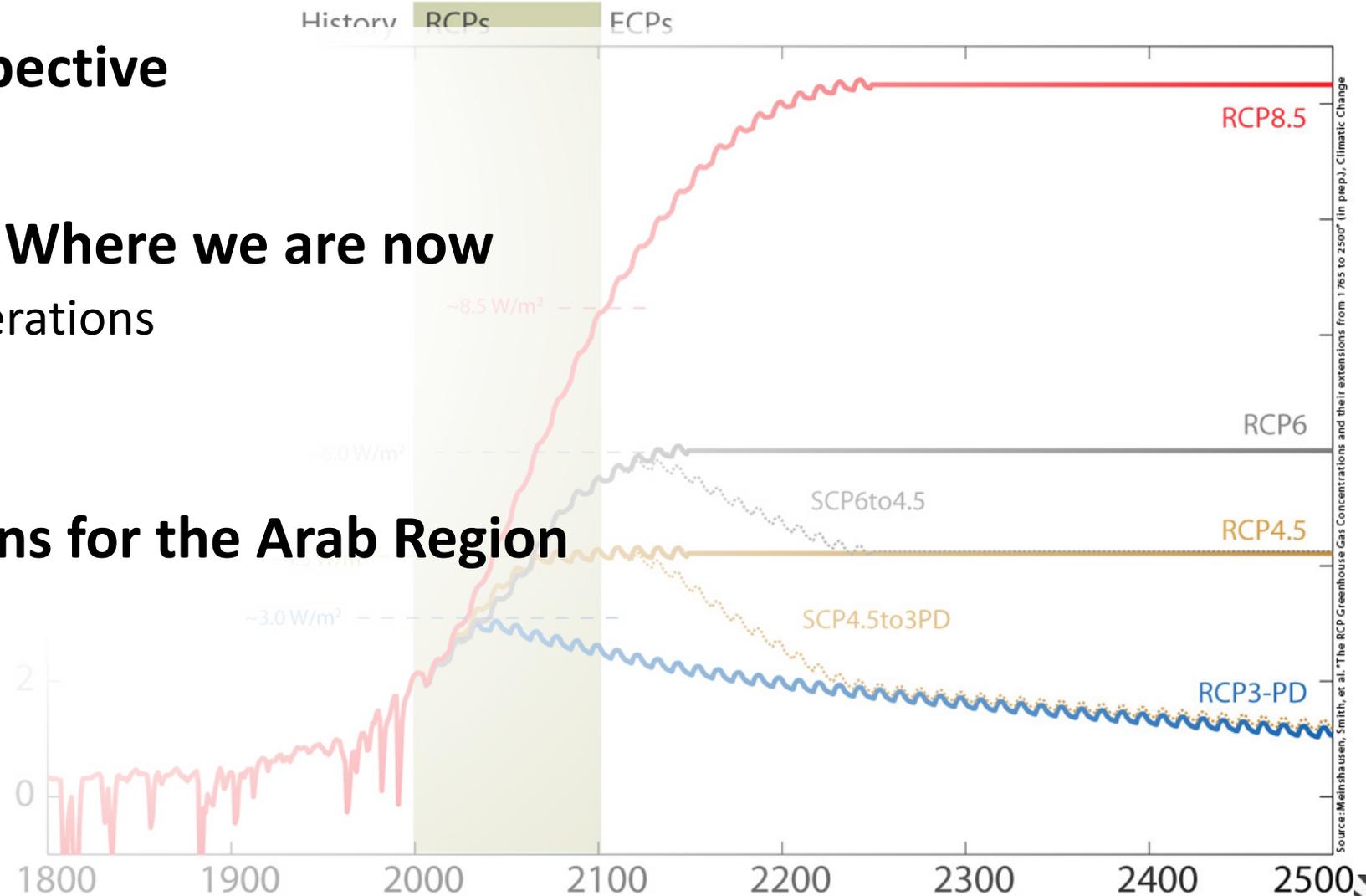
**Best to:**  
 “Phase in” the “New”  
**before**  
 “Phasing out” the “Old”

At this stage of the  
 Technology:

Renewable Energy Adds to  
 the **Energy Mix**

# Contents

- **First, Some Perspective**
- **Climate Change: Where we are now**
  - General Considerations
  - Main Impacts
- **Policy Implications for the Arab Region**



What to Expect from COP27: A Perspective from the Arab Region



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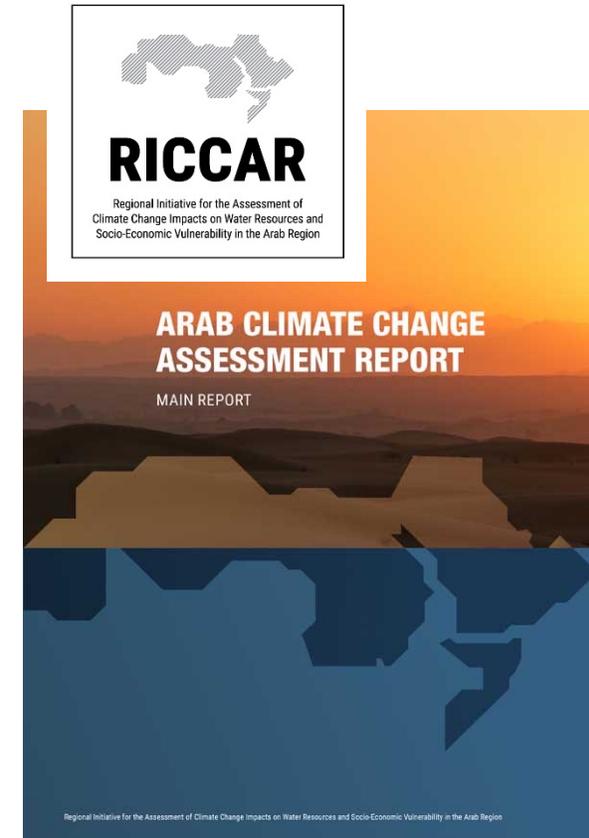


# Climate Impacts on the Arab Region

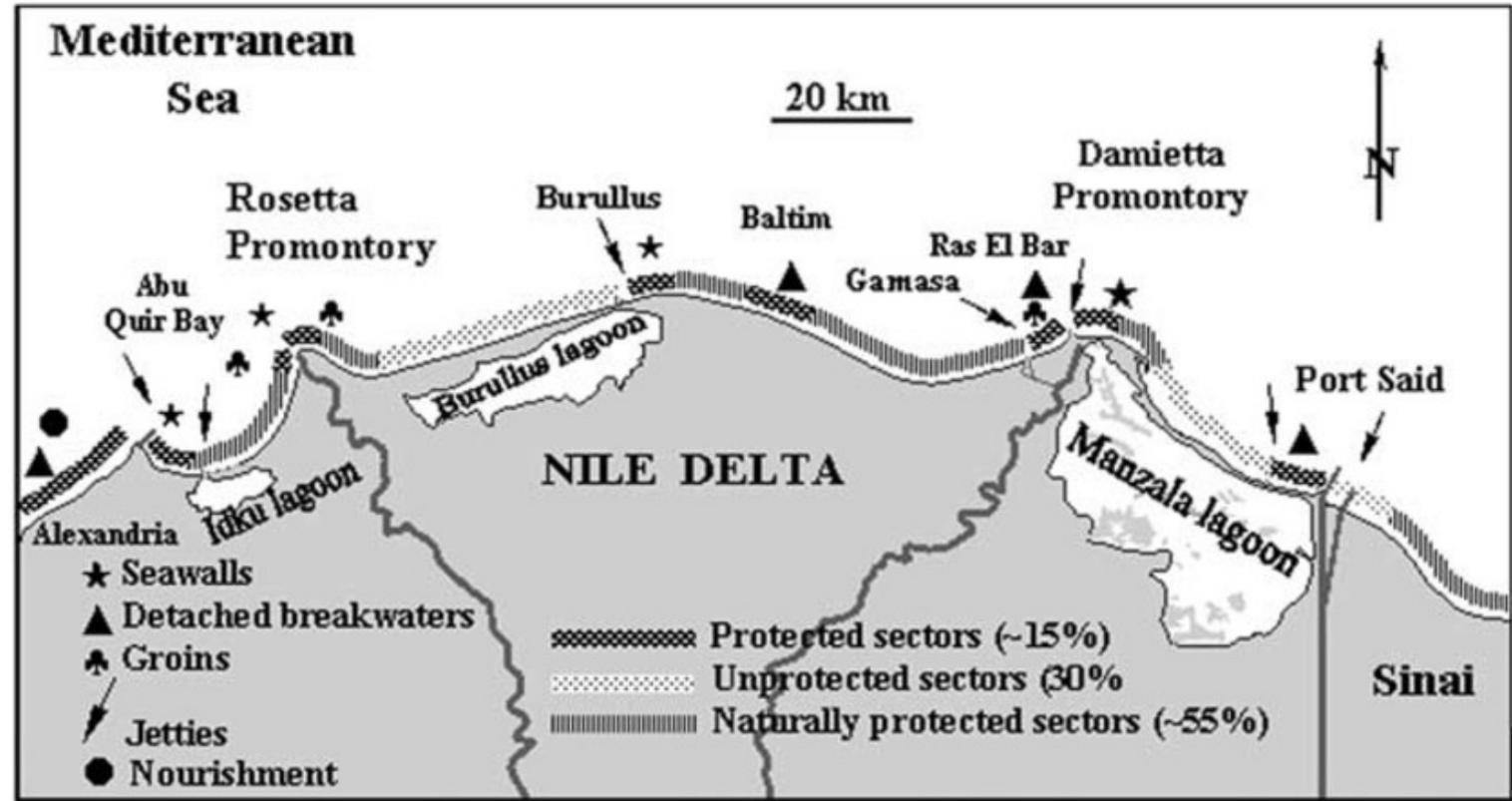
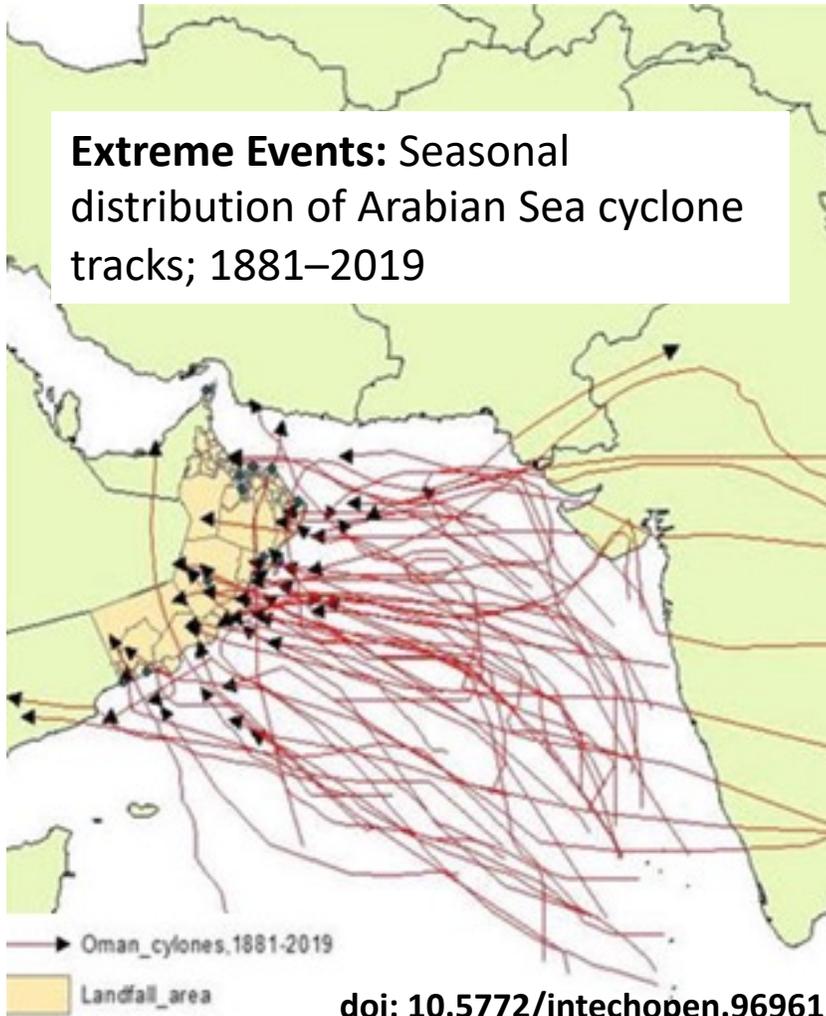
- IPCC: impacts of Climate Change likely to fall mostly on developing world.
  - Challenges of **social and economic transformation** and development in the global fight to address climate change;
  - Existing development gaps **predispose** developing countries to vulnerabilities;
  - Adverse impacts of **Response Measures** on Energy access issues,

# Main Climate Impacts in the Arab Region: 2046-2065

- Temperature increases expected to reach up to:
  - 2.4°C in RCP 4.5, or 3.4°C under RCP 8.5
  - Higher increase is in non-coastal areas;
  - Greatest increases projected in the Sahara desert.
- Significant decrease in precipitation under both RCP 4.5 and RCP 8.5.
  - The highest decrease is expected over the Atlas Mountains in Morocco, with a 8 mm reduction in Monthly precipitation rates



# Climate Impacts in the Arab Region: Extreme Events



Nile delta, showing main vulnerability areas and existing adaptation measures.

doi:10.1023/A:1026015824714

# Contents

- **First, Some Perspective**
- **Climate Change: Where we are now**
- **Policy Implications for the Arab Region**
  - Equity
  - Level of Ambition
  - Adaptation Needs



# Equity: GHG Accumulation

- The current climate change: cumulative accumulation, delayed reaction to the early industrialization.
  - From 1850 to 2002, cumulative emissions were caused primarily by the United States (30%) the European Union (25%), Russia and China (10%), Japan and India (5%).
- IPCC: Climate Change impacts likely to fall mostly on the developing world.
  - Significant economic impacts in the Arab region
  - Extreme events: In Oman, in 2010, the second-largest tropical cyclone on record caused 44 death and USD 700 Million in damages.

## Global greenhouse gas emissions by gas

Greenhouse gas emissions are converted to carbon dioxide-equivalents (CO<sub>2</sub>eq) by multiplying each gas by its 100-year 'global warming potential' value: the amount of warming one tonne of the gas would create relative to one tonne of CO<sub>2</sub> over a 100-year timescale. This breakdown is shown for 2016.



# Equity: GHG Emissions

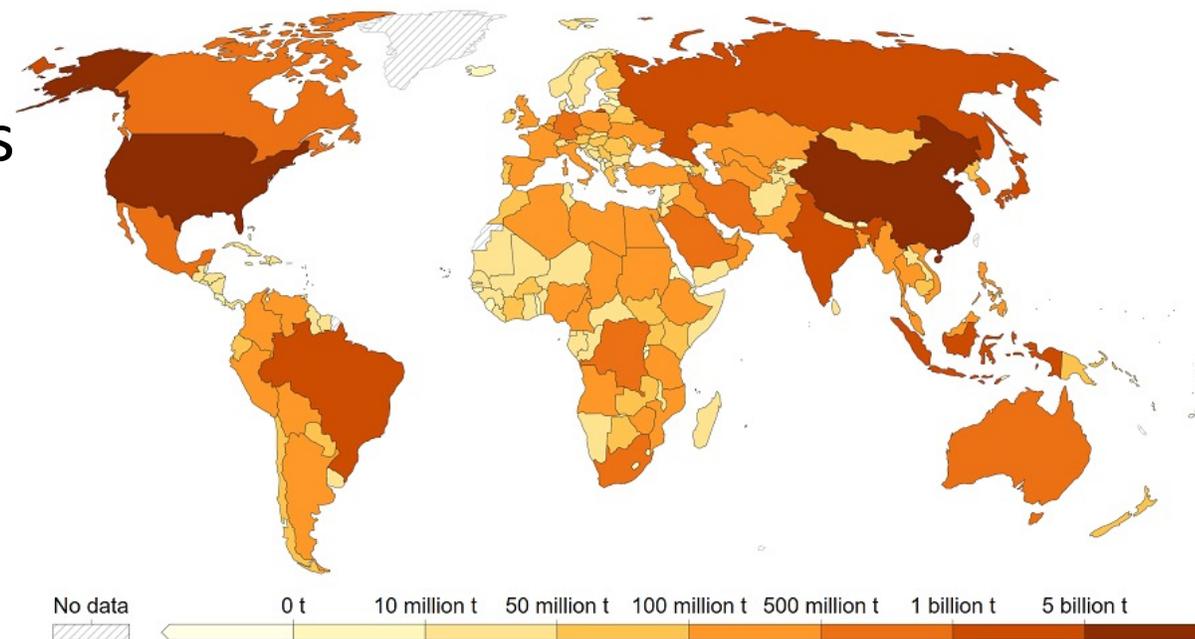
- Industrialized countries continue to account for most of the GHG accumulated in the atmosphere.
- At present, top emitters of GHGs:

China (22.7%), the United States of America (15.6%); the European Union (all 28 member countries as of 2012; 10.9%), India (5.7%); Brazil (2.6%); Russia (5.4%); Japan (2.9%); Canada (1.7%).

## Total greenhouse gas emissions, 2019

Greenhouse gas emissions<sup>1</sup> are measured in carbon dioxide-equivalents (CO<sub>2</sub>eq)<sup>2</sup>. Emissions from land use change – which can be positive or negative – are taken into account.

Our World  
in Data



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What to Expect

# Level of Ambition: the “Paris Objectives”

Credible path to limit temperature rise below 2°C, or even 1.5°C if possible:

- **Geoengineering?**

Responds to climate change in a way that all Parties adhere to their commitments:

- **Binding Agreement?**
- **Response Measures?**

Achieves a mobilization of all sectors of society to reaching the global goal:

- **Carbon credits?**
- **Impact on Funding?**

# Level of Ambition: the Paris Temperature Targets

A “Dual” objective:

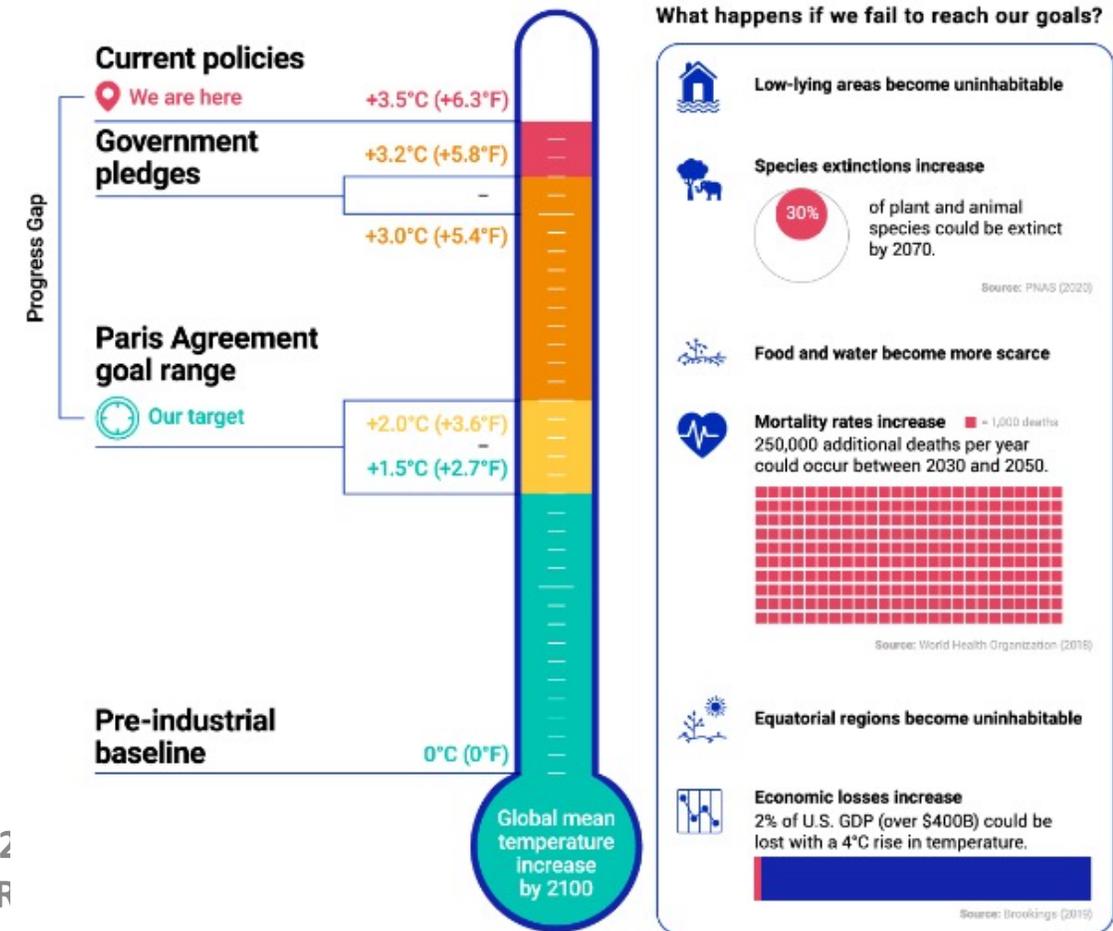
- **2 °C:** Voluntary CO<sub>2</sub> in NDCs will lead to a warming of about of 2.7 °C;
- **1.5°C:** Reachable with GHG concentrations ~350 Million PPM...
- We're above 400 Million PPM.
  - Remove the excess GHGs from the atmosphere: *Carbon-Capture & Storage?*
  - Mitigate warming effect: *Shading?*

MSCI  Temperature Check

## Are We on Track To Reach the Paris Agreement Goal?

The Paris Agreement gave the world a collective mission: limit global warming to 1.5°C–2°C (2.7°F–3.6°F) above pre-industrial levels.

Unfortunately, we aren't close to hitting the goal we set five years ago.



# Level of Ambition: Funding

- Recognition for a “**Loss and Damage Mechanism**” (LDM) established at the Warsaw COP 19, but does not appear to include financing.
- Multilateral “**Green Climate Fund**” (GCF) remains undefined:
  - No clear definition of what would constitute a “Green” development;
  - The term “green economy” needs a formal, unified definition;
- Finance focus: helping developing countries
  - Avoid climate change impacts;
  - **Promote adaptation** by taking *"fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties"*.



# Adaptation & Mitigation in the Arab Region

- In the short to medium term: **adaptation**
  - Home to 5 of the 10 countries considered most at risk from climate change;
  - Is already feeling some of the effects of climate change; increased water scarcity, higher temperatures, greater climatic variability, and sea level rise.
- On the longer term, **mitigation as a co-benefit of adaptation**
  - Diminish human emissions of GHGs in the industrialized countries, the world's largest emitters;
  - It has **indirect** implications for the Arab Region: impact of Response Measures

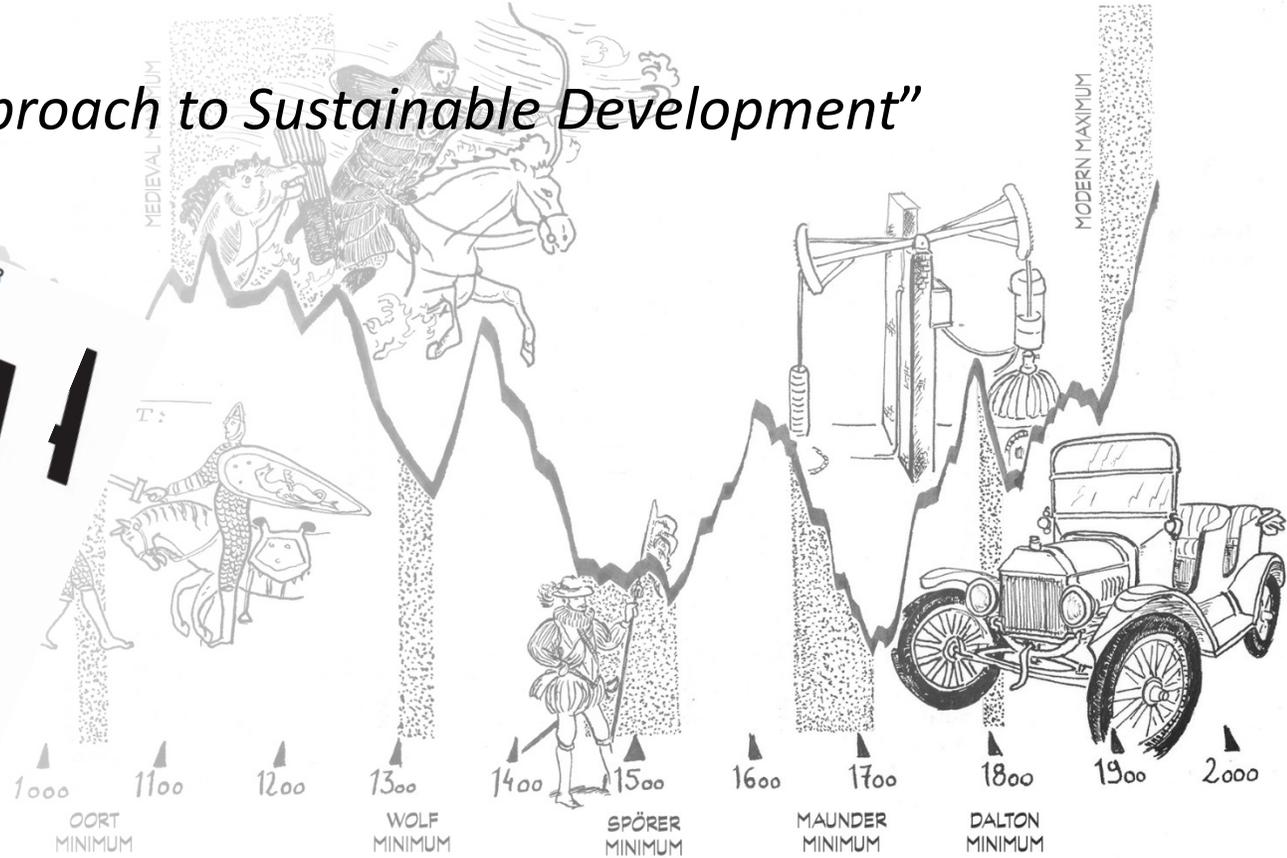
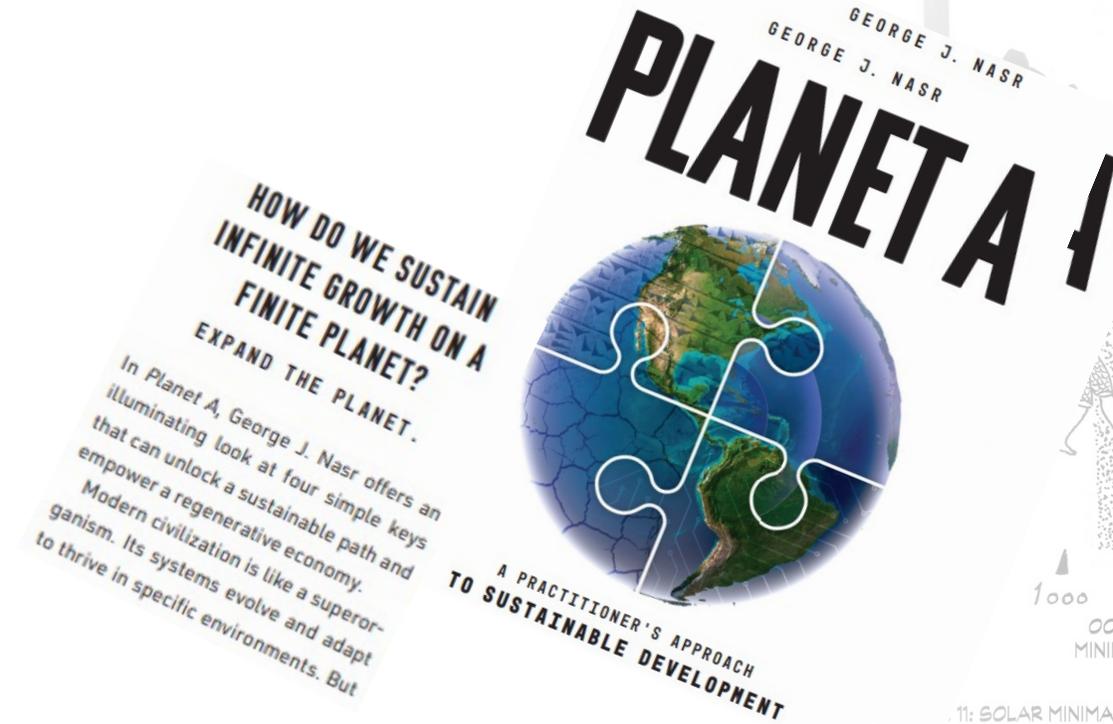
# Adaptation w/ Co-Benefits of Mitigation

- Almost no direct contribution of Arab countries to climate change mitigation:
  - Negligible **cumulative emissions** since the onset of the industrial age;
  - Their current emissions are comparatively negligible as well. This was implicitly recognized by the Kyoto Protocol, under which Arab countries were not required to have commitments to contribute to global mitigation efforts, thus freeing them to devote resources with a primary focus on sustainable development.
- In the Arab Region: economic diversification and co-benefits to be related concepts.

# Thank You

George Nasr, Dr. Eng

Author "Planet A: a Practitioner's Approach to Sustainable Development"



11: SOLAR MINIMA AND MAXIMA

