

# Finding Petroleum

## Finding Petroleum Opportunities In The Middle East

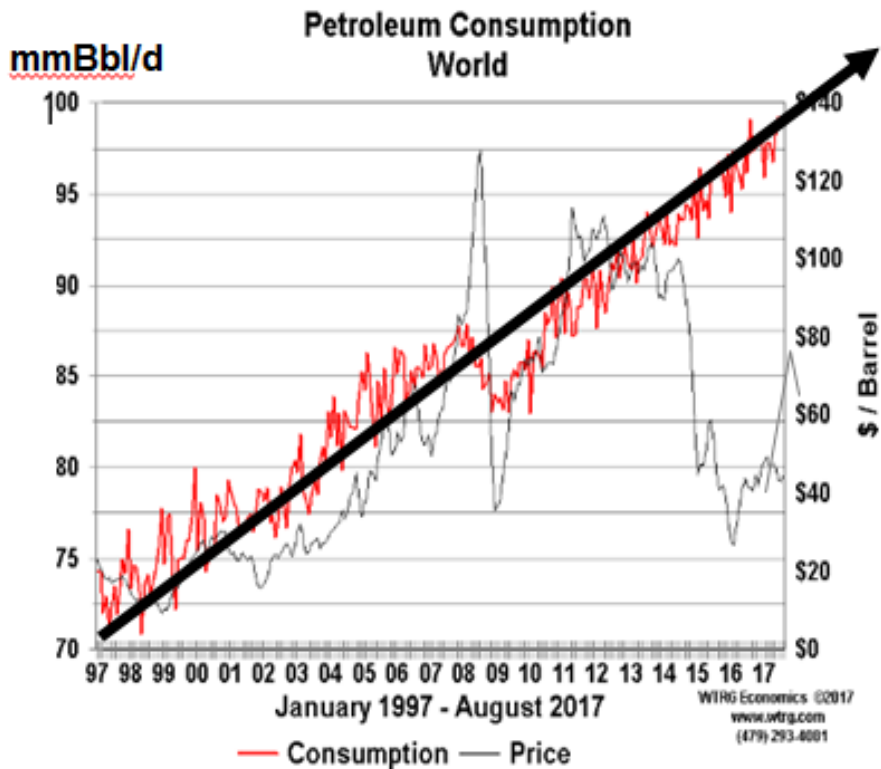


9:40	<p><u>Neil Hodgson</u> - Executive Vice President Mediterranean and Middle East Region <i>Spectrum</i></p> <p><b>Lebanon 2nd Offshore Round -Access to Eastern Mediterranean Oil Province</b></p> <p>show </p>	 
10:15	<p><u>Andrew Freeman</u> - analyst <i>Control Risks Group</i></p> <p><b>Political stability and opportunity in Egypt, Israel and Lebanon</b></p> <p>show </p>	 
10:50	<p><b>Coffee &amp; Tea; Exhibits</b></p>	
11:15	<p><u>Jo Garland</u> - director <i>Cambridge Carbonates</i></p> <p><b>Underexplored opportunities in the Arabian Plate: application of palaeogeographic mapping and global analogues</b></p> <p>show </p>	 
11:50	<p><u>Deborah Humphreville</u> - Director energy, EMEAR <i>Maxar</i></p> <p><b>Benefits of subsidence modelling in field development in the Middle East</b></p> <p>show </p>	 
12:25	<p><u>Mike King</u> - Oil &amp; Gas Manager <i>CGG NPA Satellite Mapping</i></p> <p><b>Remote Sensing for Exploration in the Middle East</b></p> <p>show </p>	 
13:00	<p><b>Close: Lunch &amp; Exhibits</b></p>	

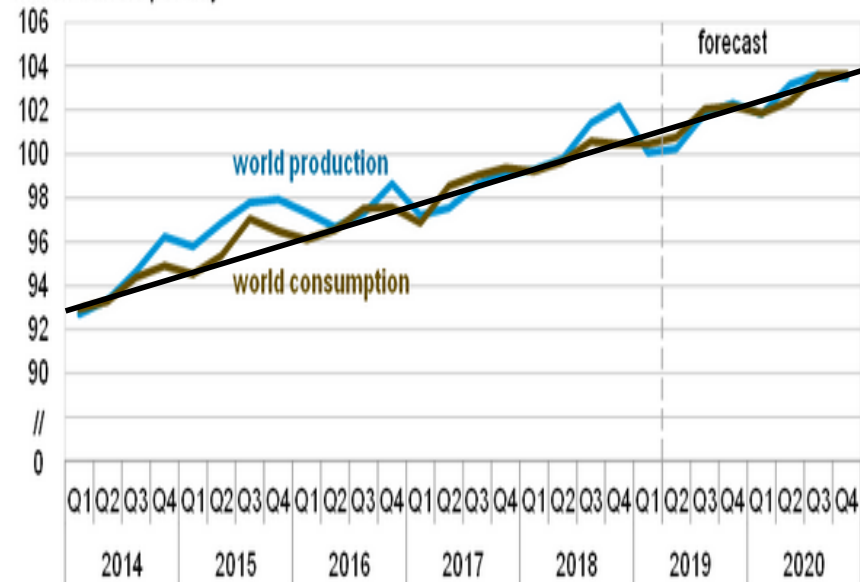
This mornings Agenda...

# Energy Transition?

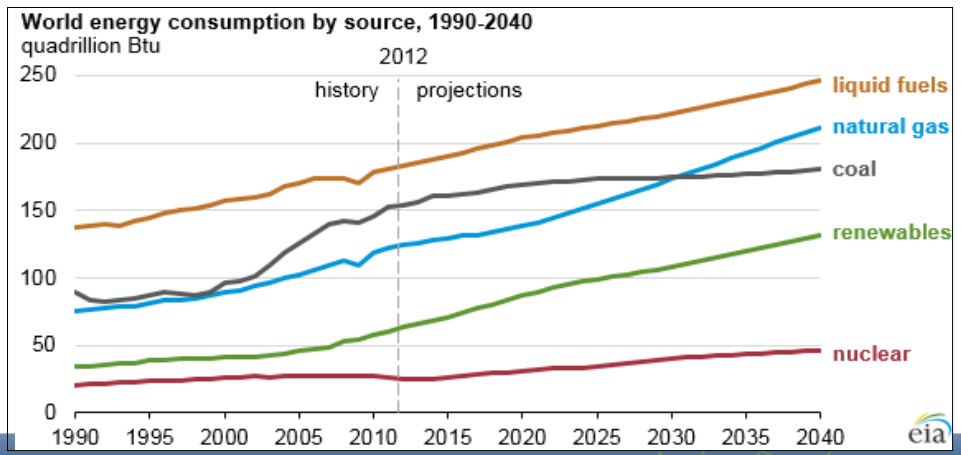
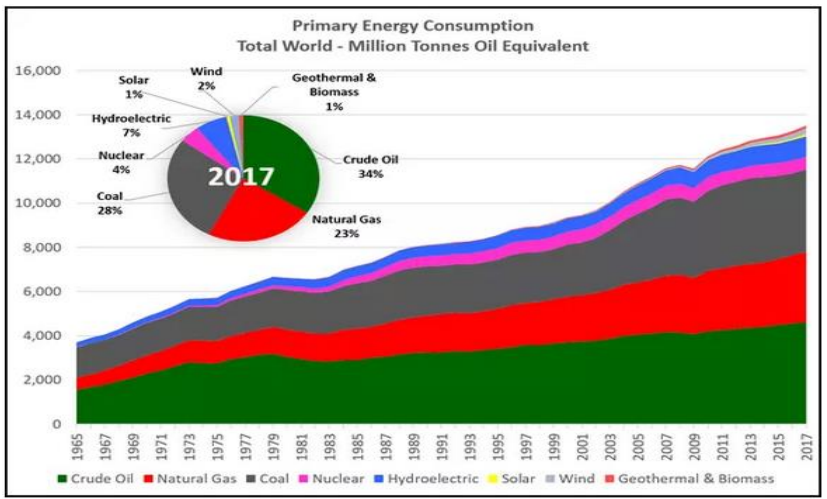
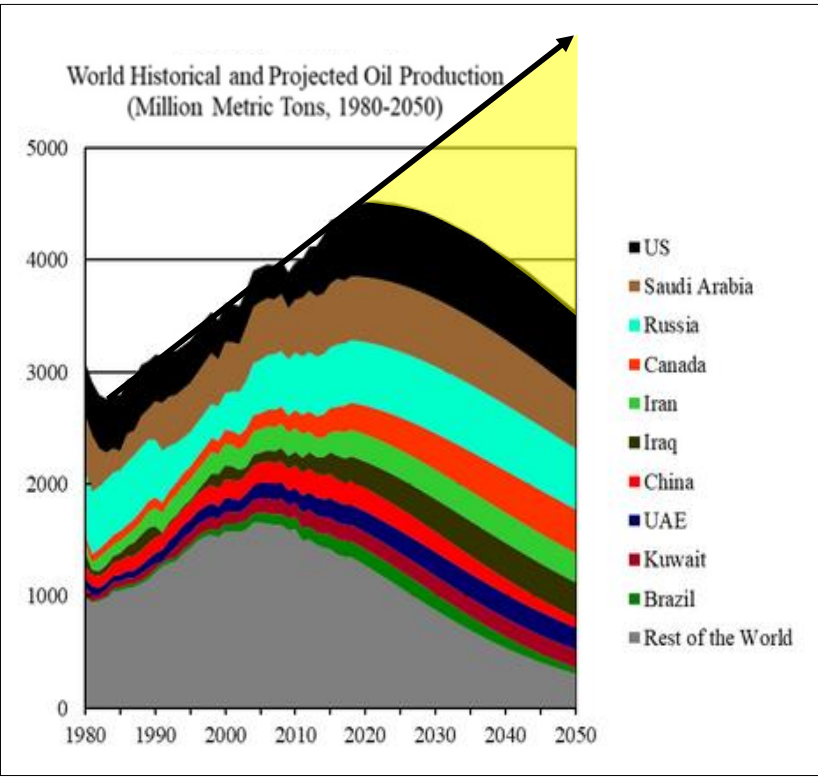
7 years : + 11mmBbl/d



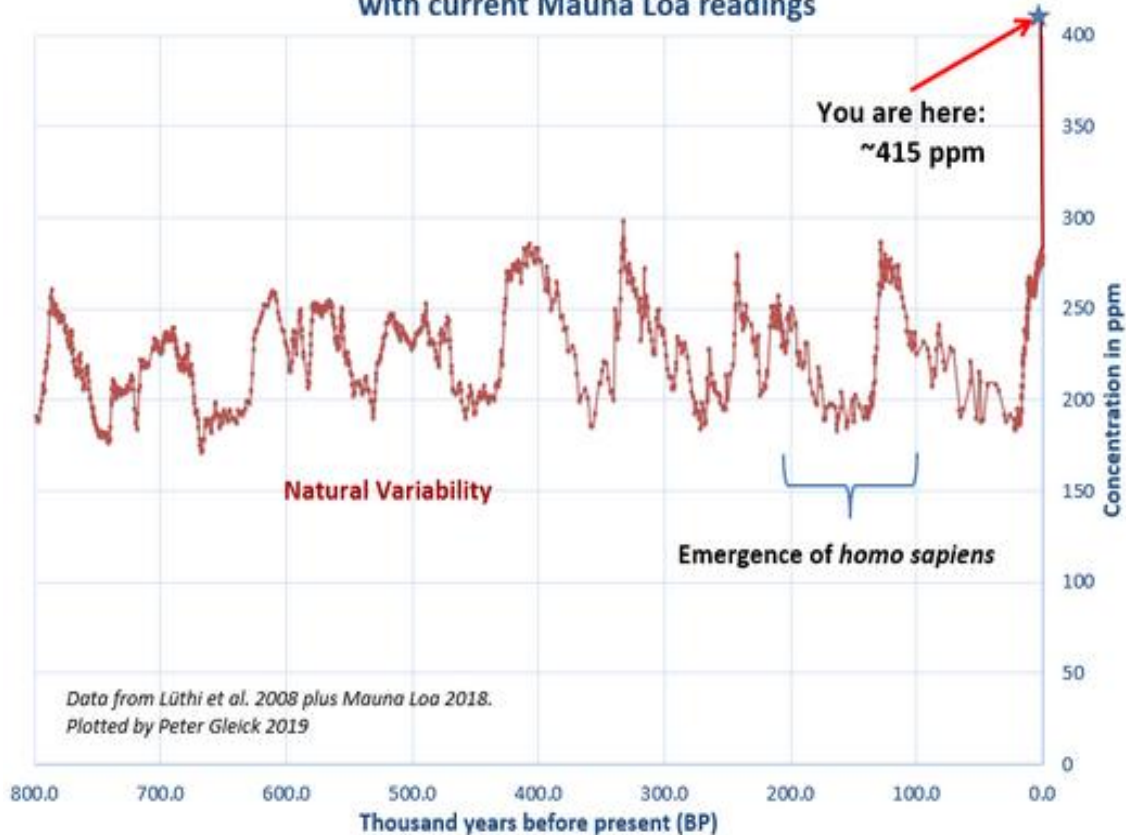
World liquid fuels production and consumption balance  
million barrels per day



# Growth in Oil demand



## Composite Antarctic CO<sub>2</sub> record (0-800 kyr before present) with current Mauna Loa readings

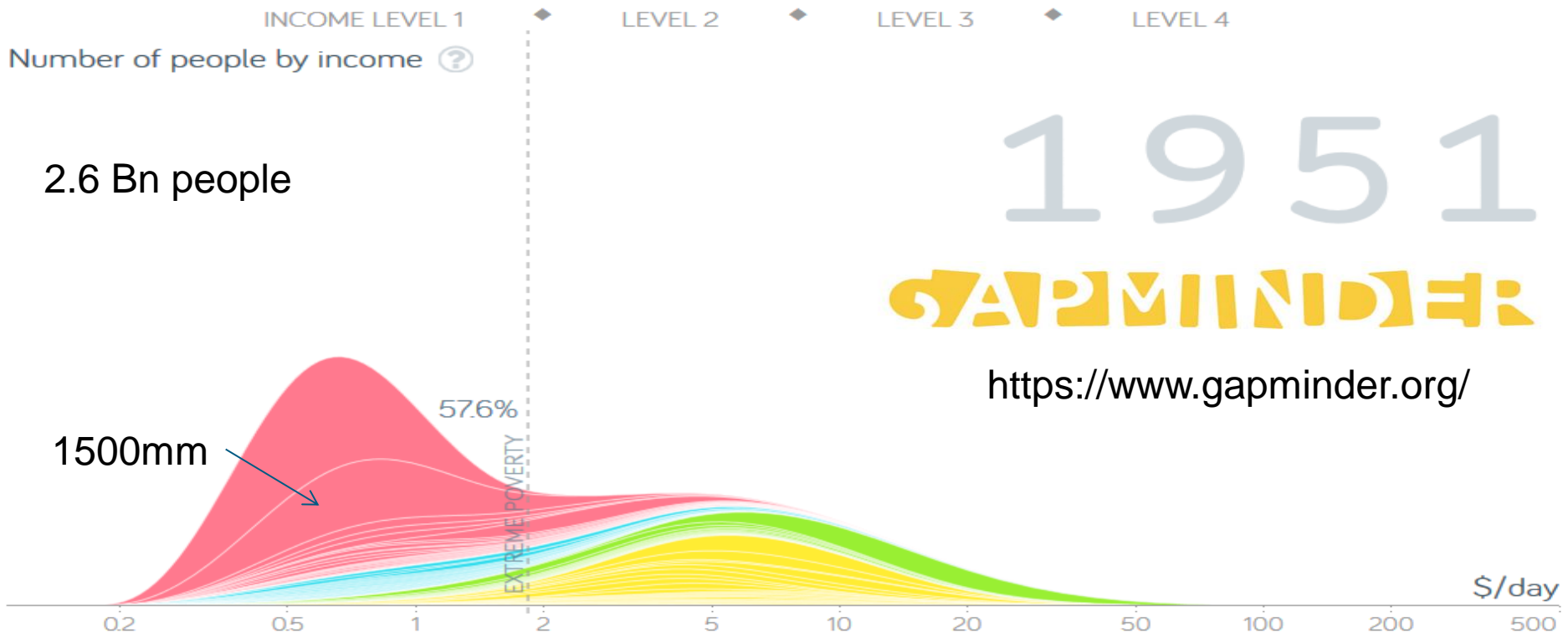


- Climate change
- Sea Level Rise
- Pressures on Human Settlements

What has Energy ever done for us?



# Income vs "poverty"

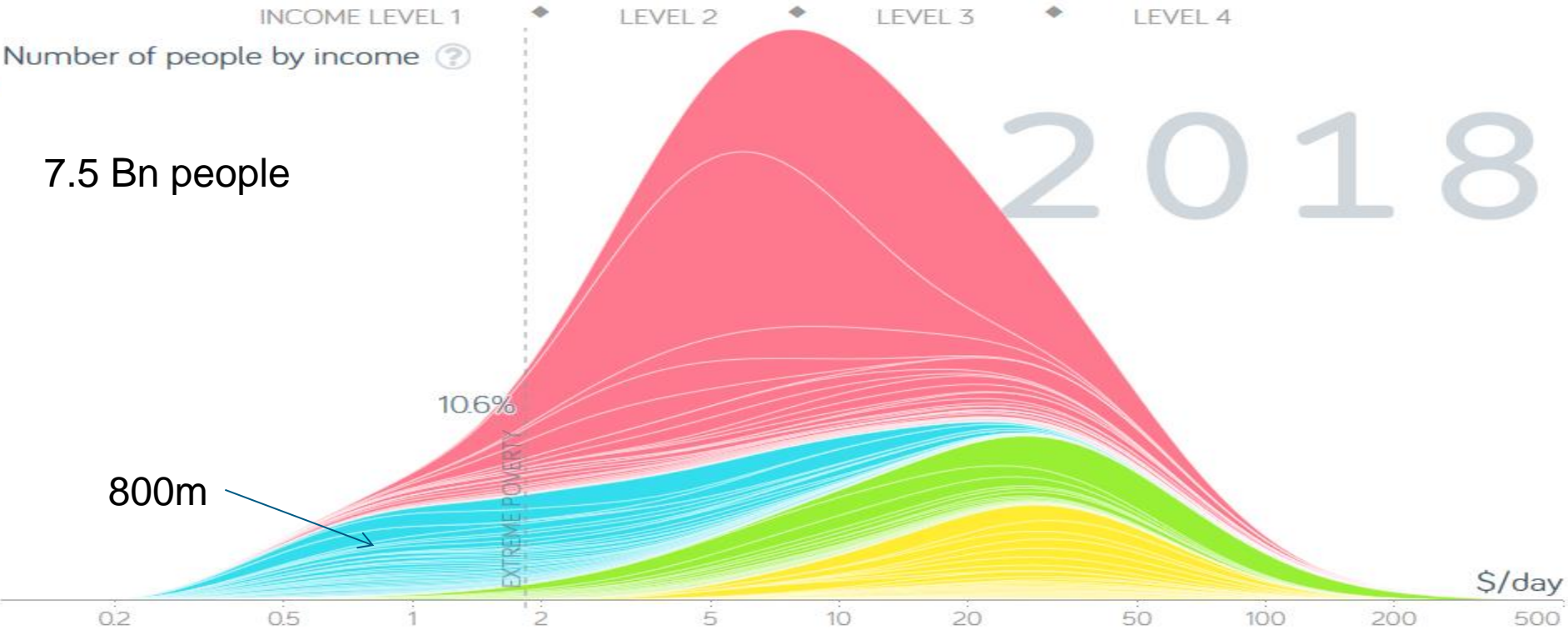




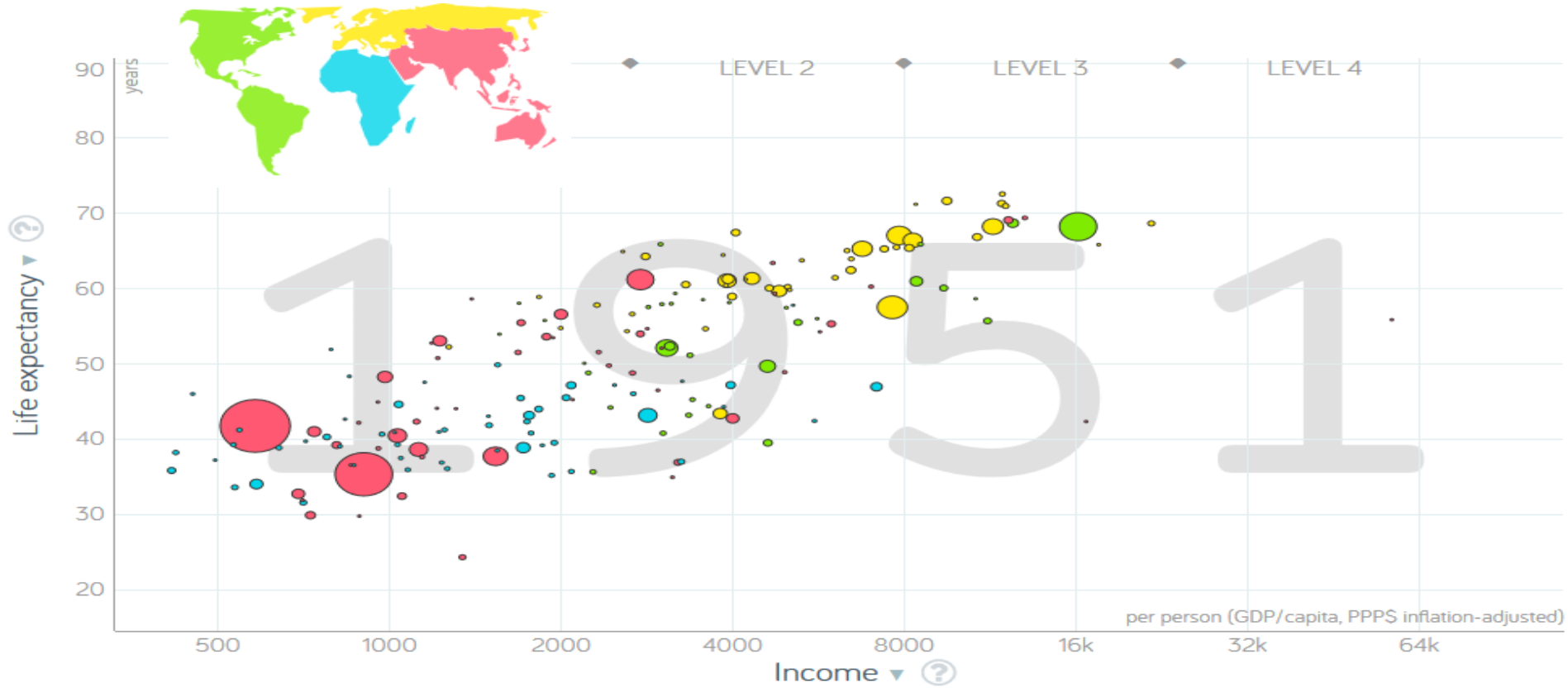
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# Income vs "poverty"

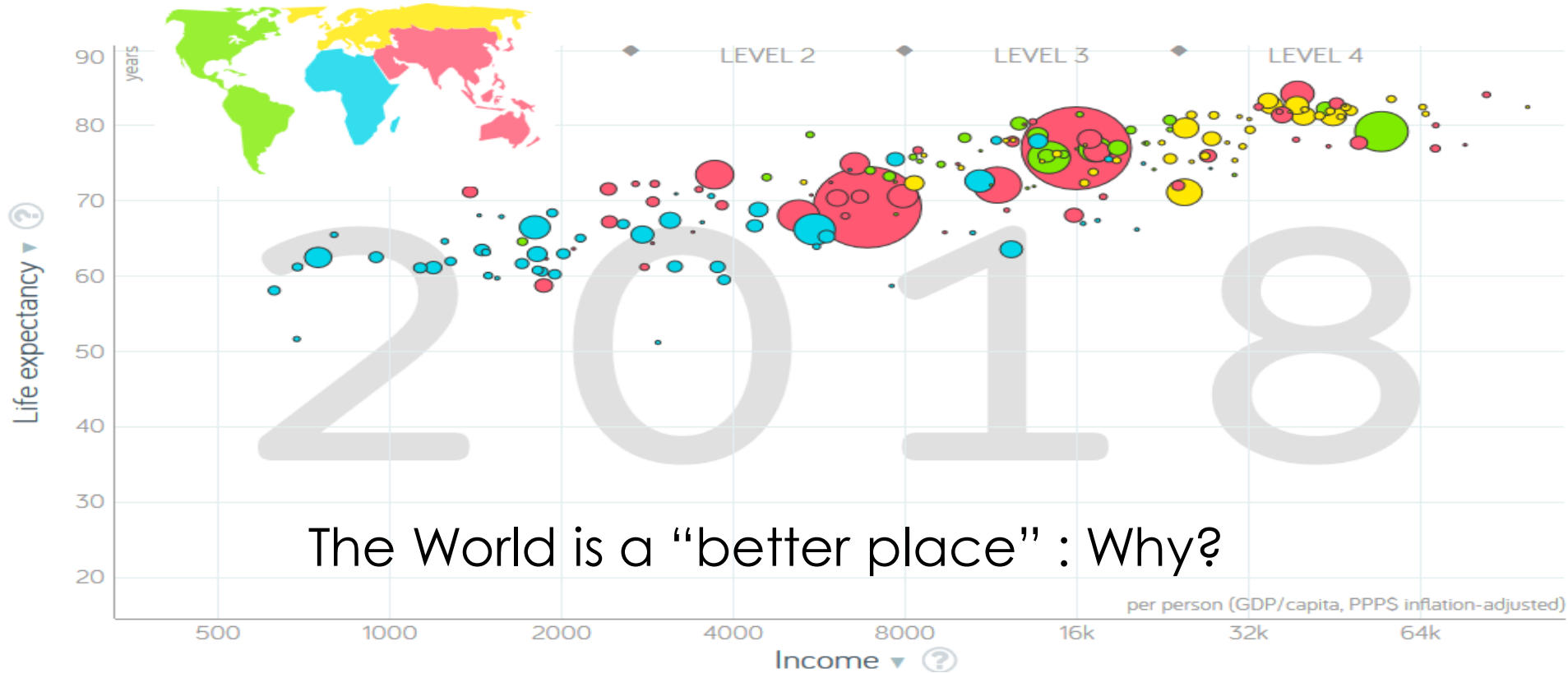


# Life Expectancy vs Income

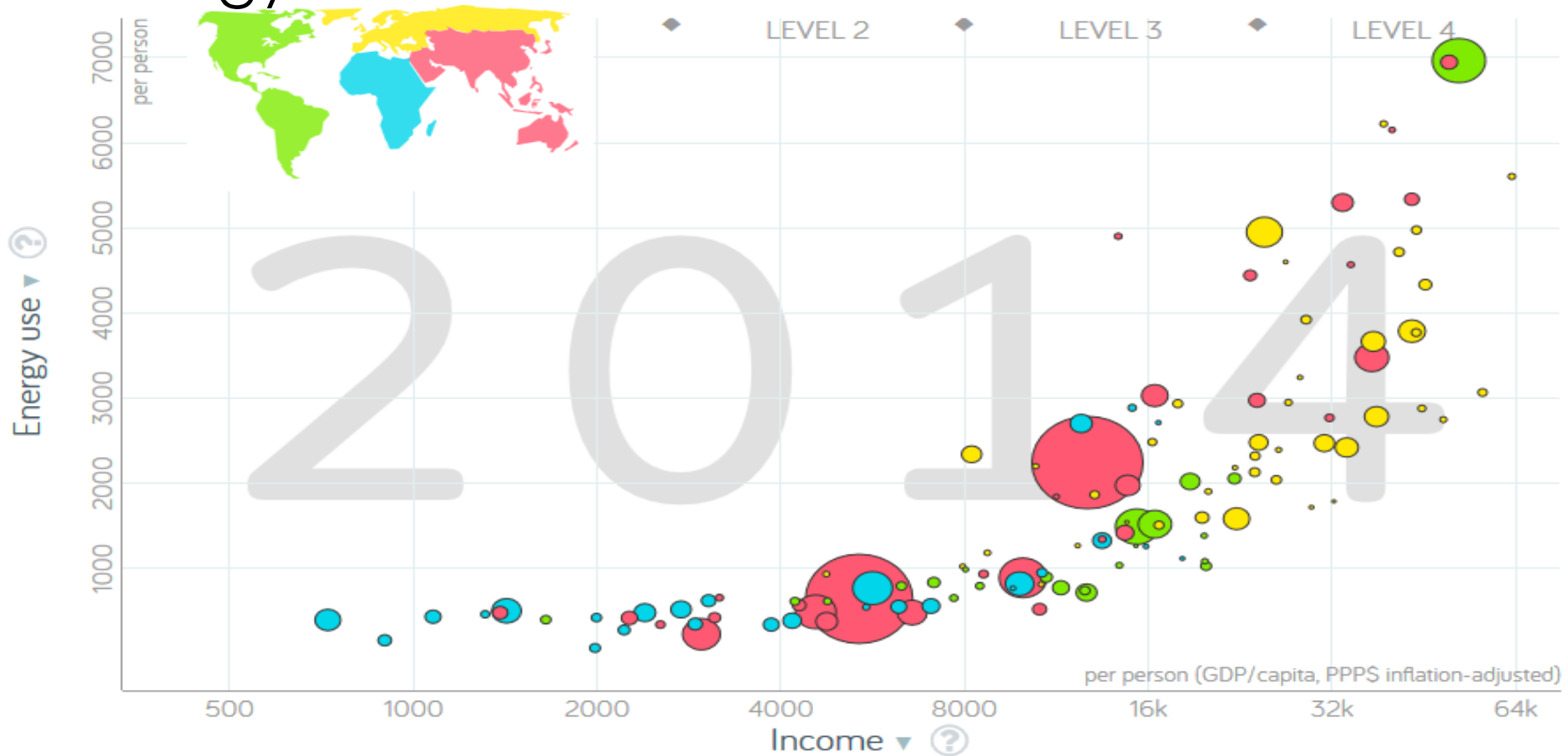




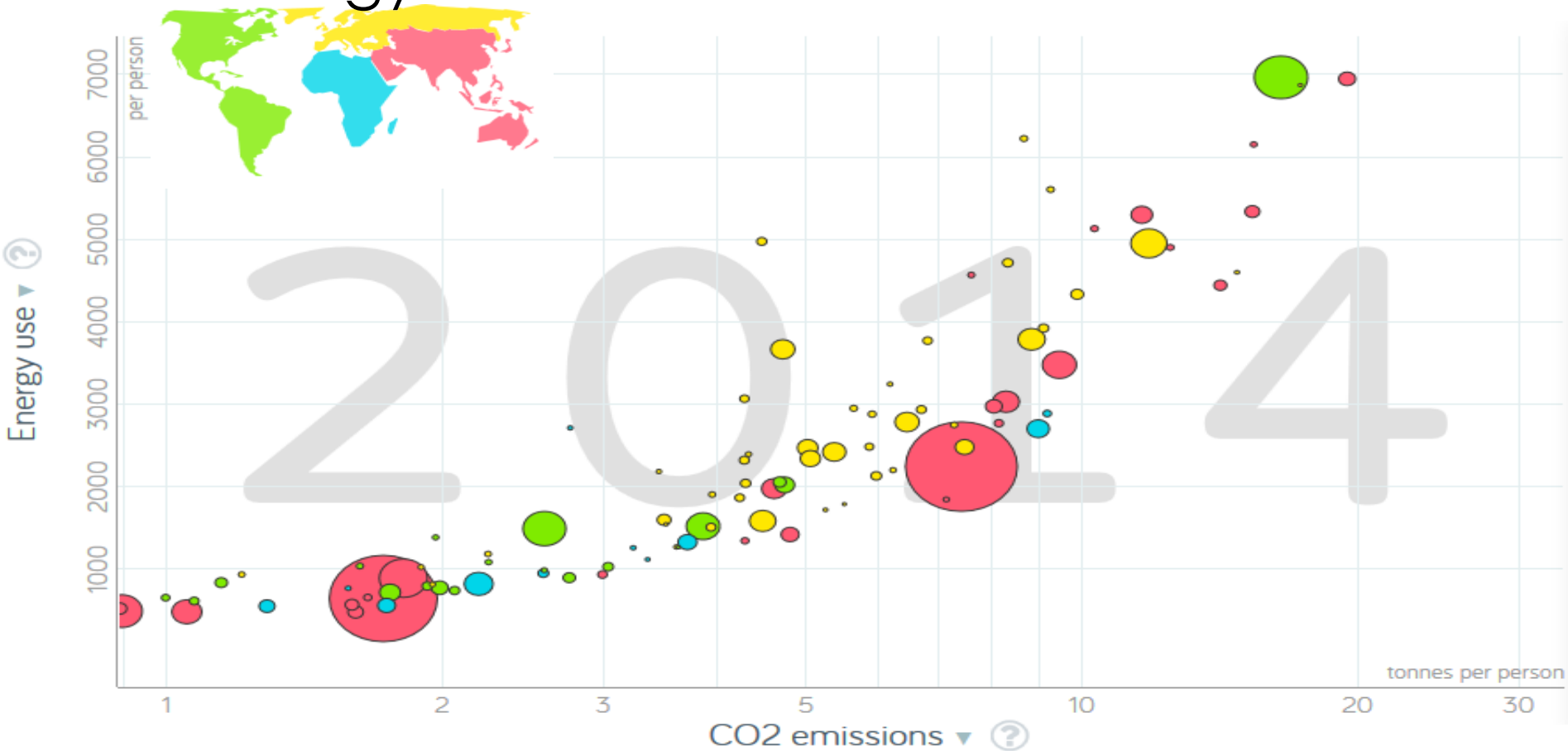
# Life Expectancy vs Income



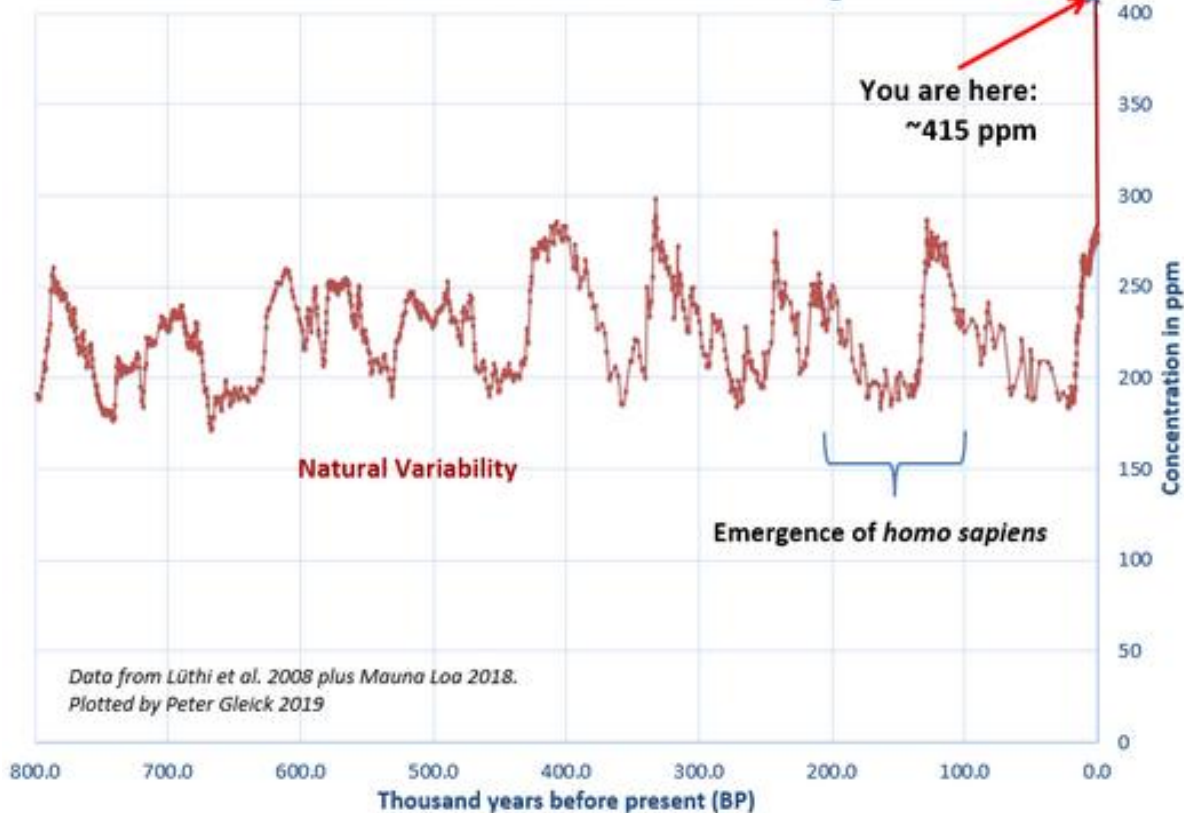
# Energy Use vs Income



# Cost: Energy use vs CO2 emissions



Composite Antarctic CO<sub>2</sub> record (0-800 kyr before present)  
with current Mauna Loa readings

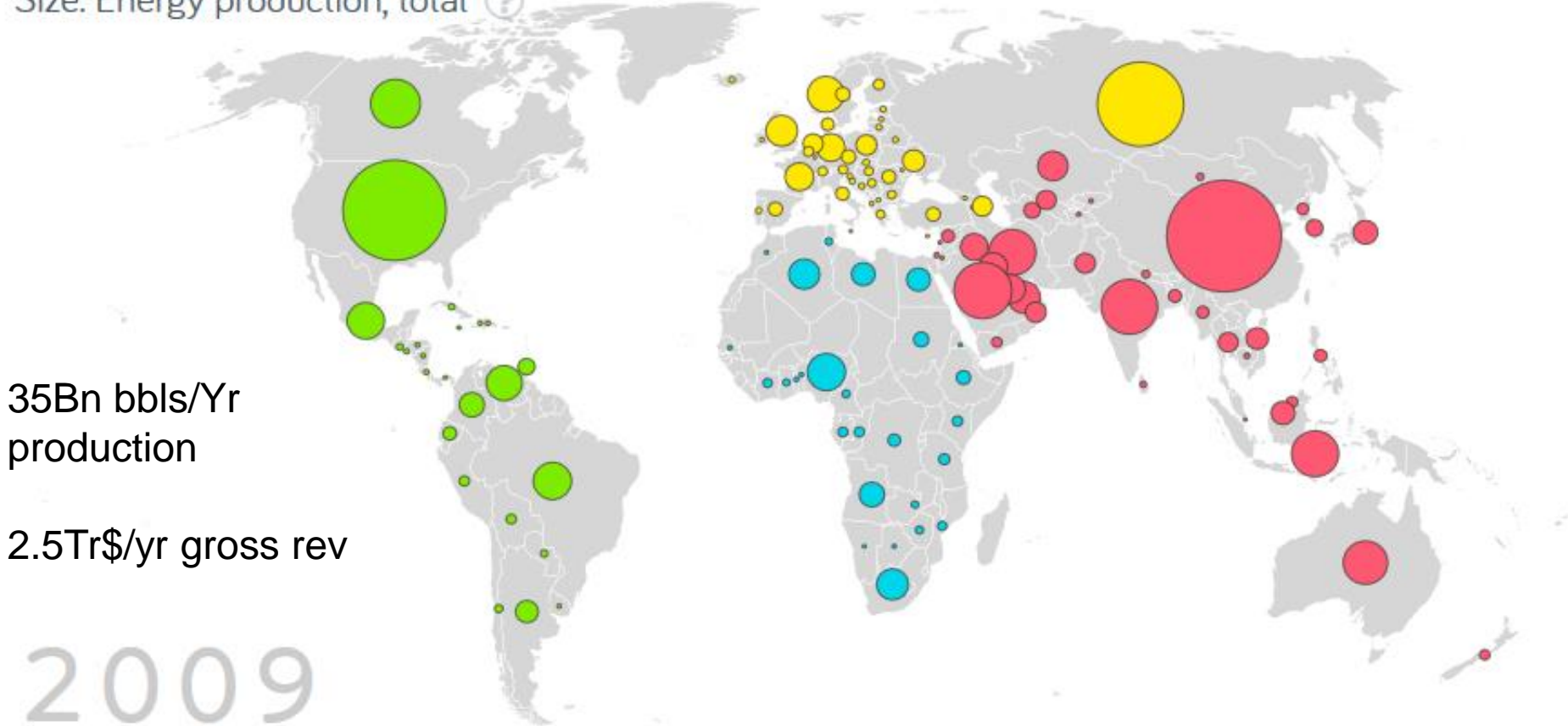


## Mitigation

- Renewal Energy
- Reduce energy use in developed countries
- Reforestation/re-greening
- Land management (soil)
- Bioenergy
- Enhanced weathering
- Ocean Fertilization
- **Carbon Capture Sequestration (CCS)**

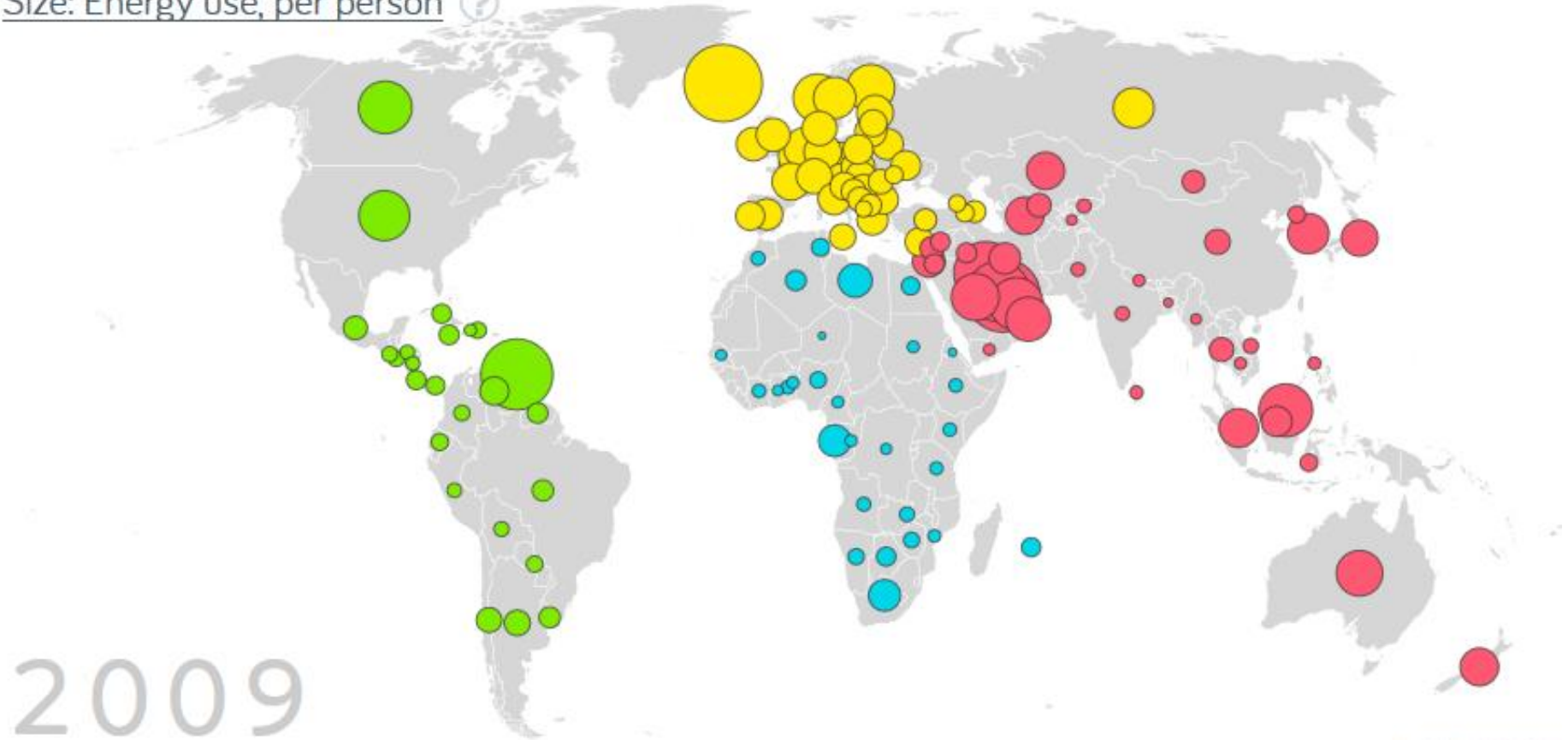
# Who should pay? the producers of energy?

Size: Energy production, total 



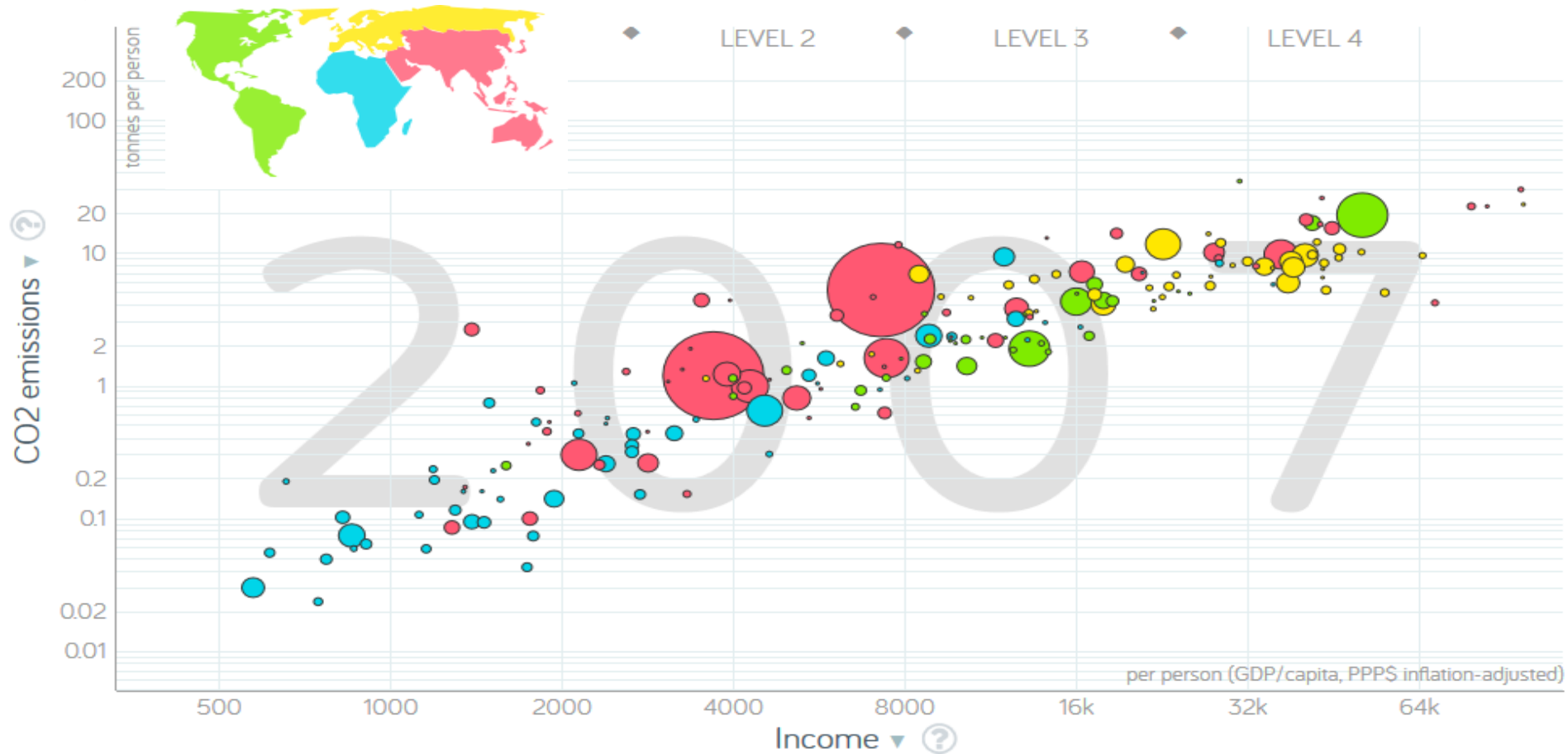
# Or the consumers?

Size: Energy use, per person (?)



2009

# Or those who can afford it?





# The Dialog: CO<sub>2</sub> vs Global Aspiration

Fossil Fuels have brought great benefits to the world

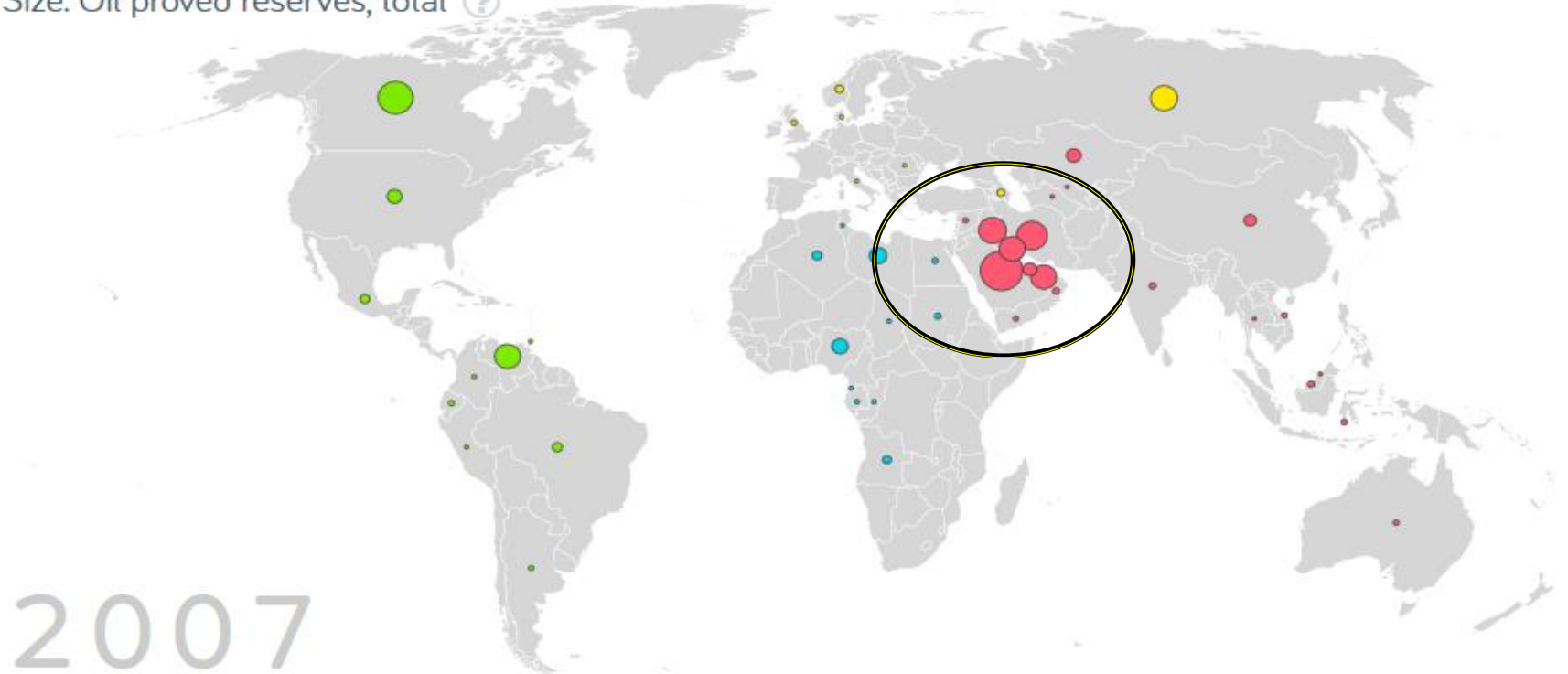
But at a cost.

Going Forward the Fossil Fuel Industries must earn a mandate.

- Reduce its own extractive/processing footprint.
- Engage with society to create an environment to manage carbon via carbon capture (etc).
- Bring populations out of poverty, leading society towards a truly sustainable future.

# The Area for today's Discussion: The Middle east

Size: Oil proved reserves, total 



2007