

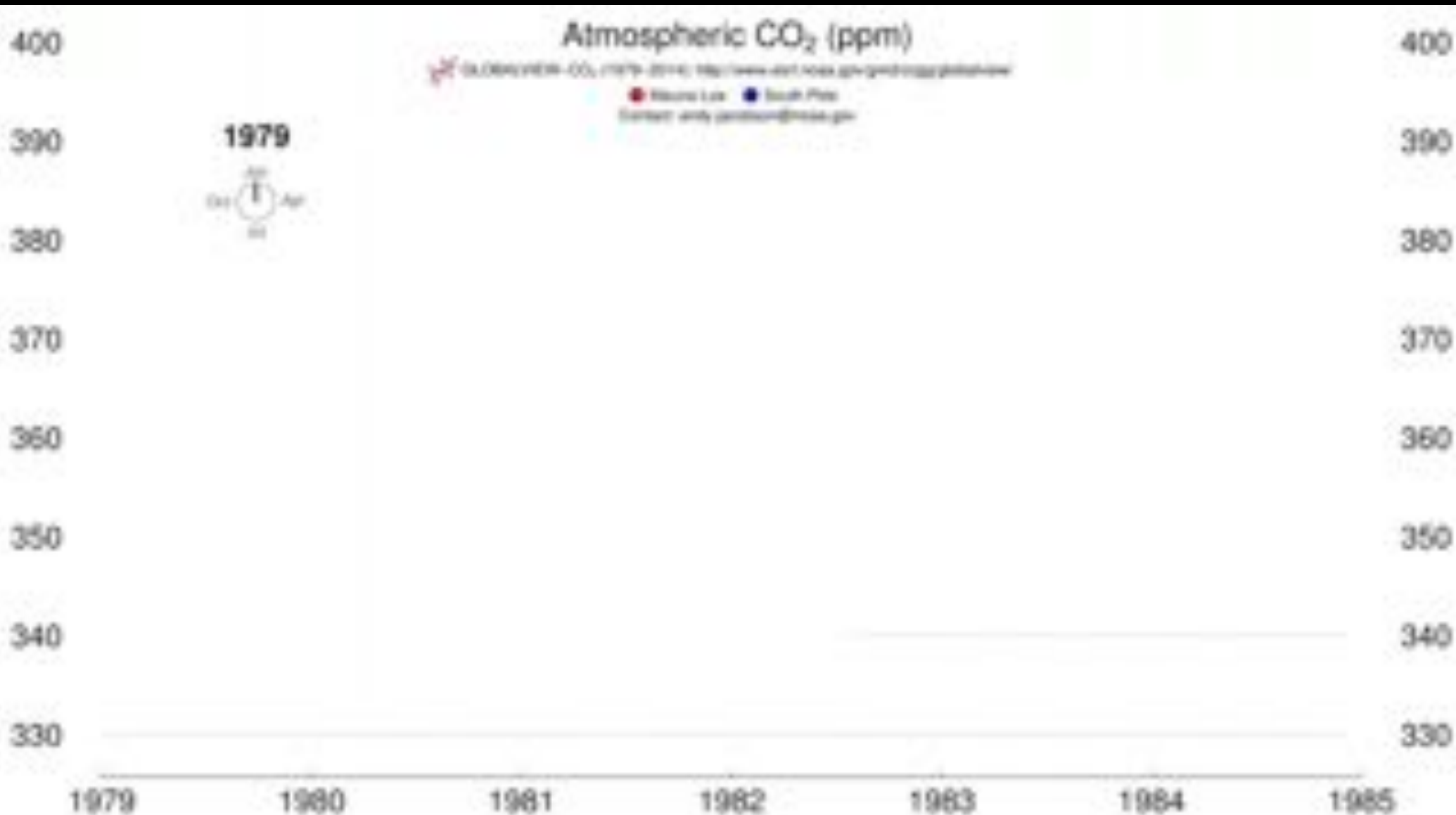


Climate Change

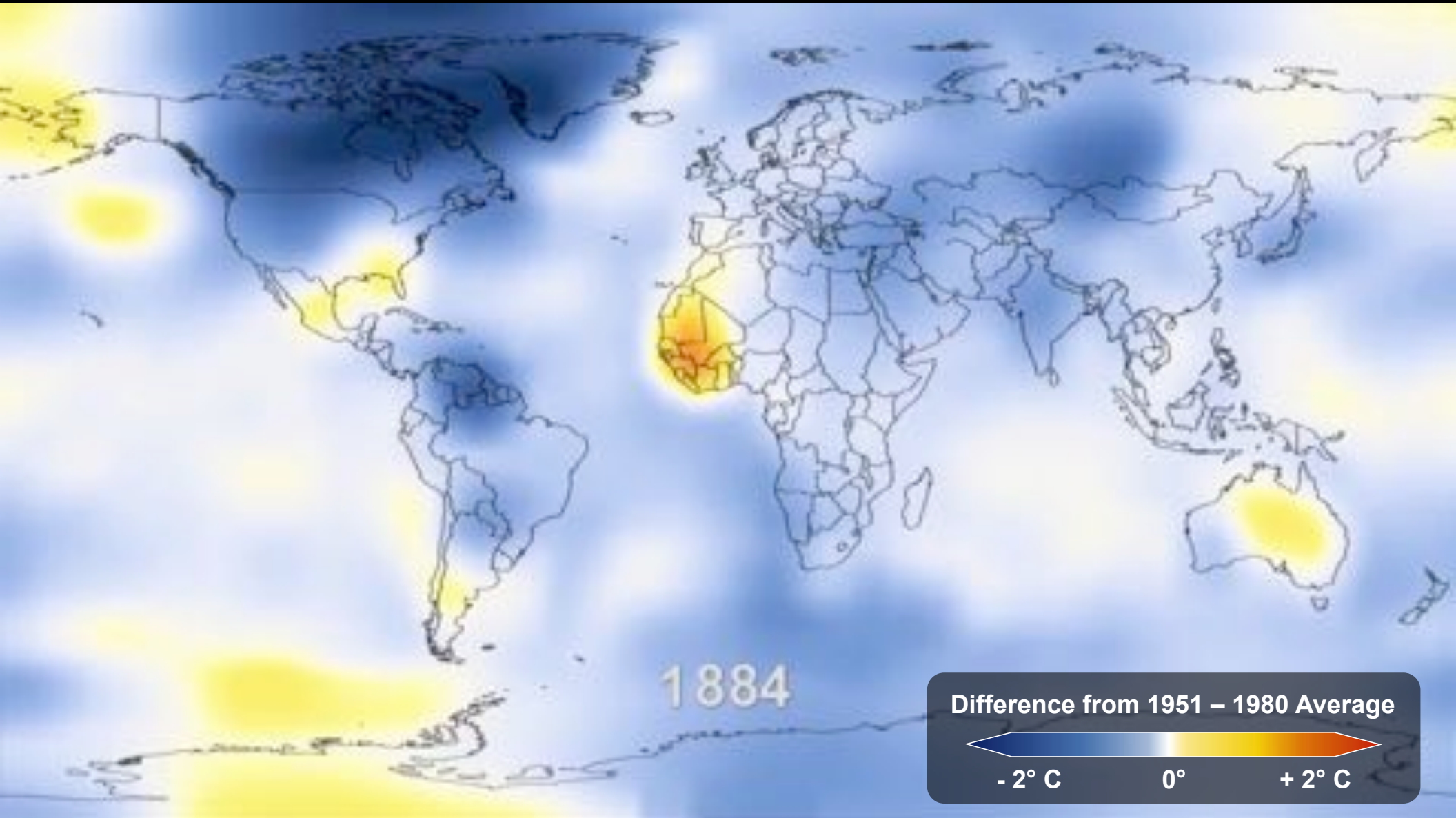
From Planet to
Port Townsend

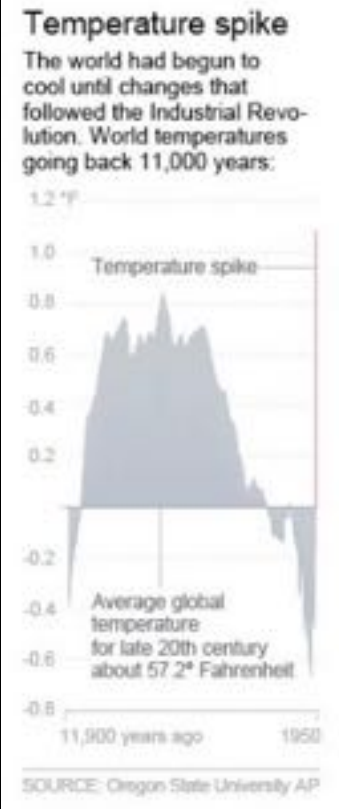
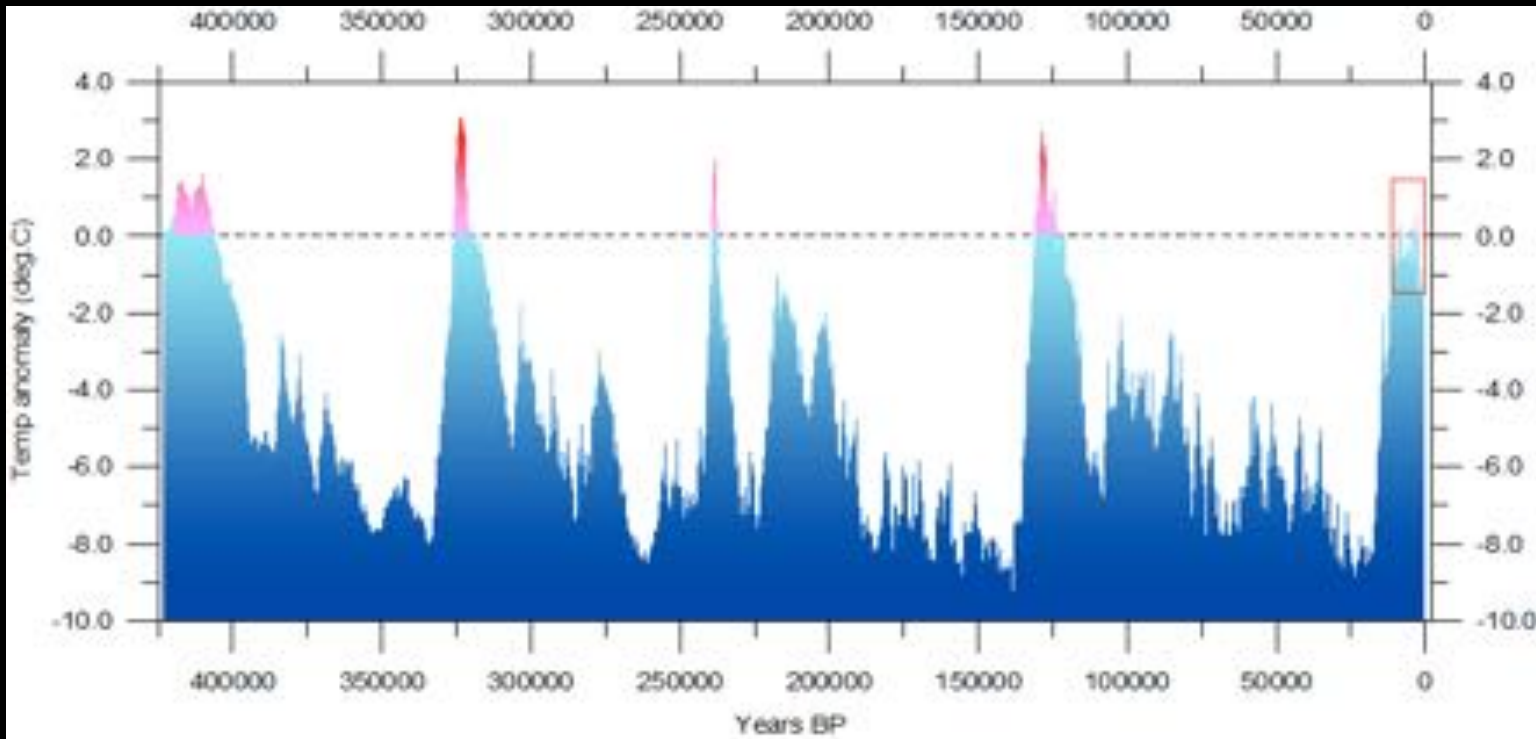
Tonight: Planet

Atmospheric CO₂ levels over the past 800,000 years



Global Warming, 1884 – 2011

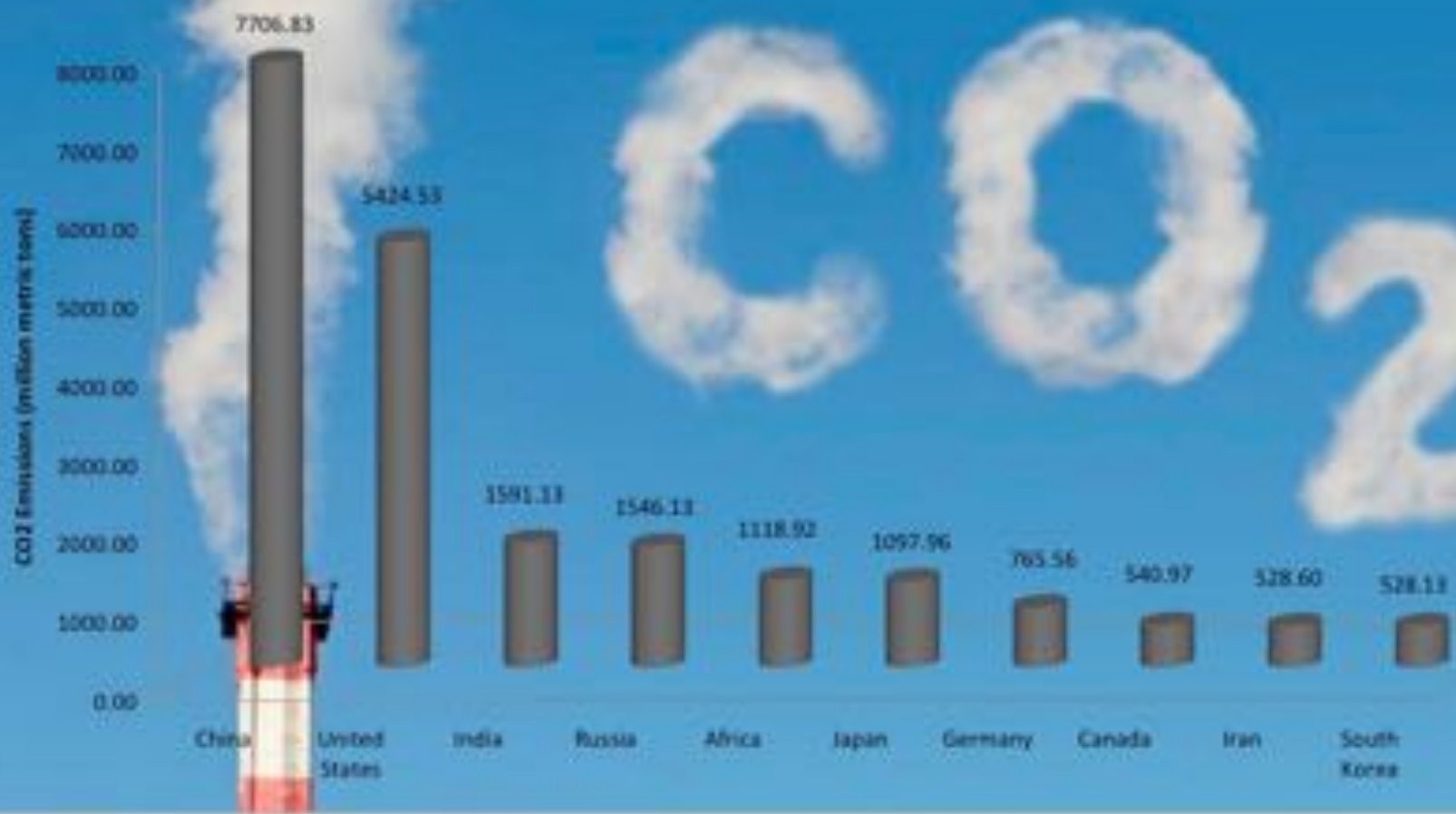




A new study looking at 11,000 years of climate temperatures shows the world in the middle of a dramatic U-turn, lurching from near-record cooling to a heat spike.

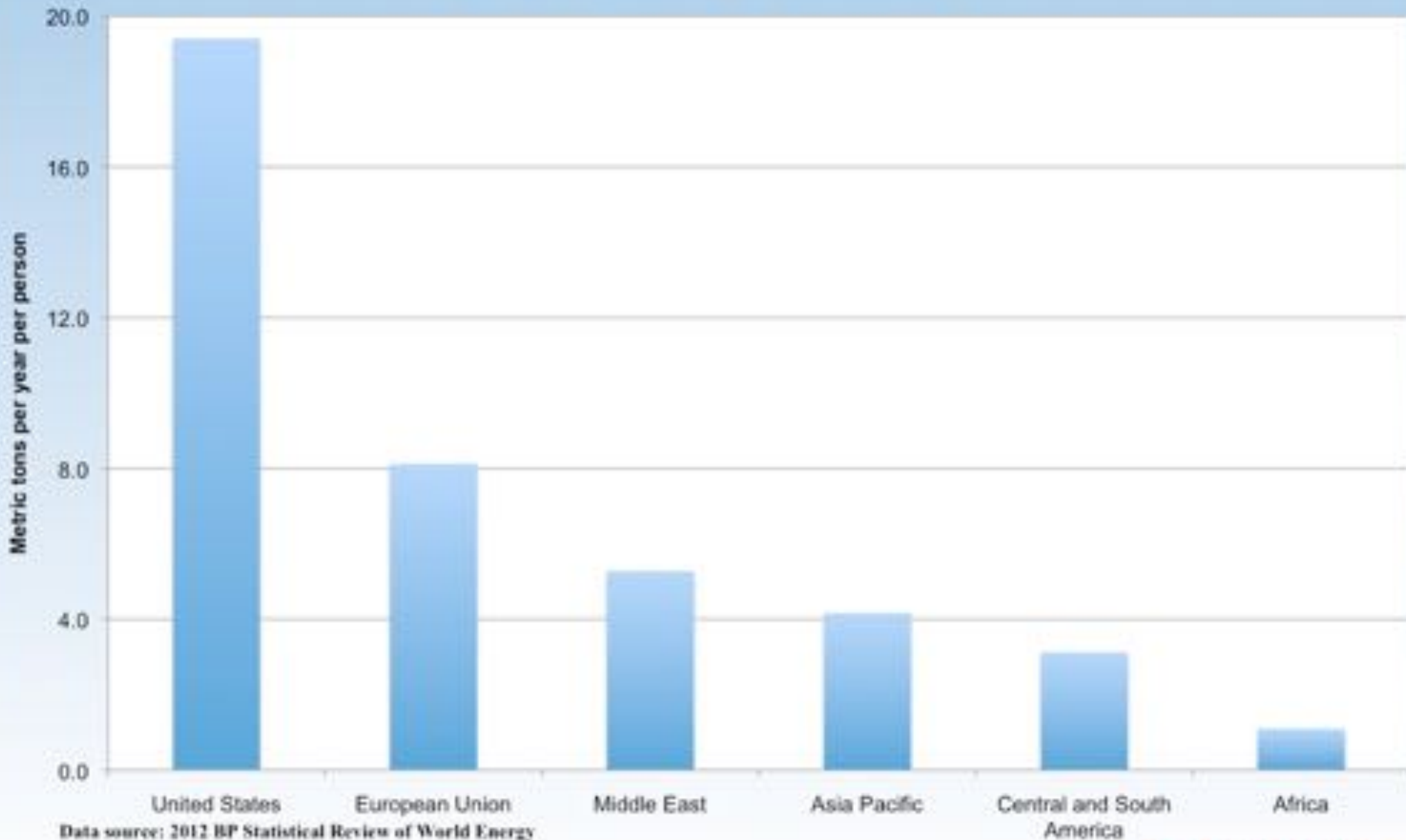
Top Ten Countries by Total CO₂ Emissions from Consumption of Energy (2009)

©2011 Dan Witkowski for "Ranking America" (<http://rankingamerica.wordpress.com>)



Data From U.S. Energy Information Administration
<http://www.eia.doe.gov/>

Per Capita CO₂ Emissions



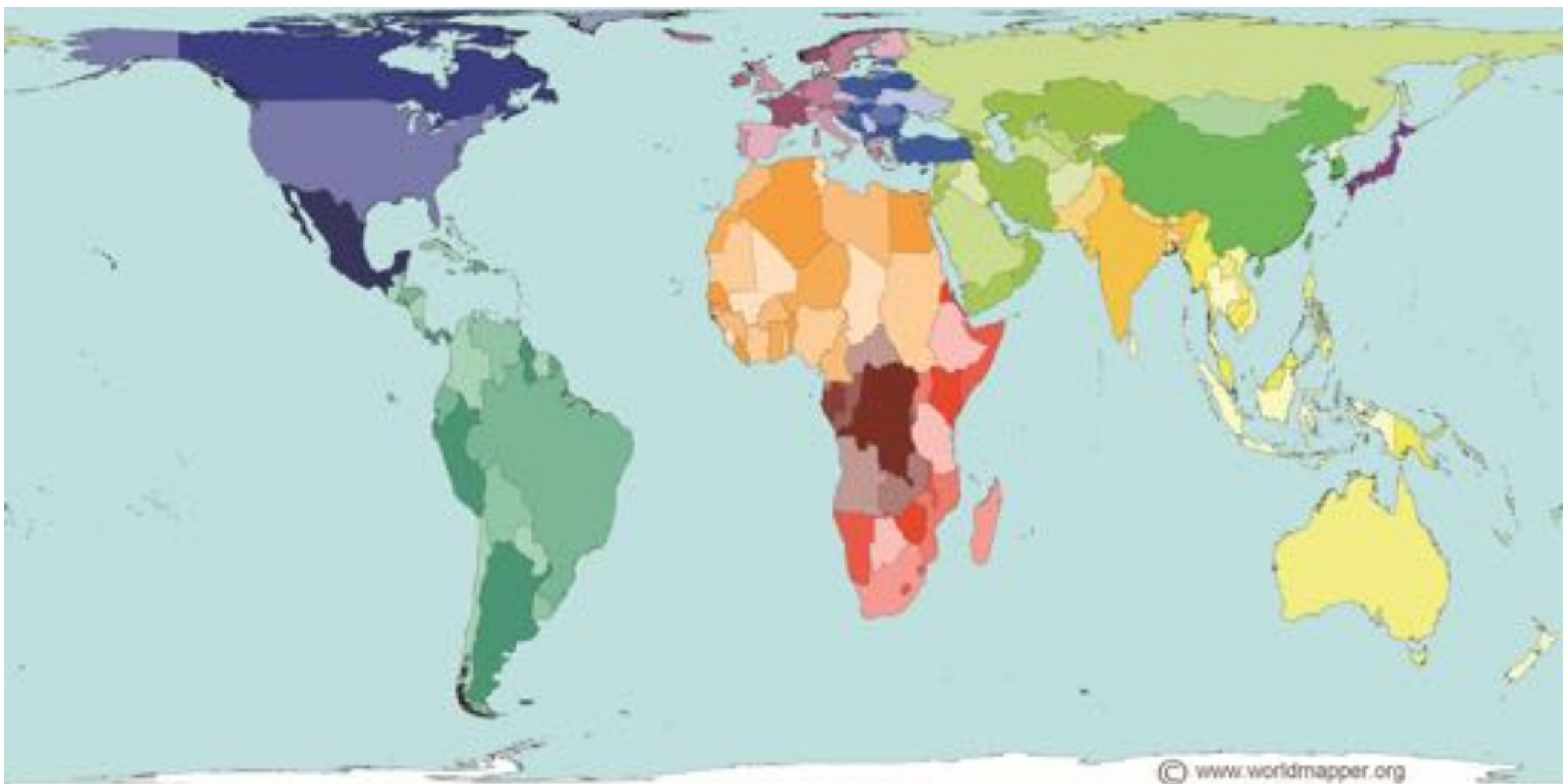


Why we can make a HUGE difference:

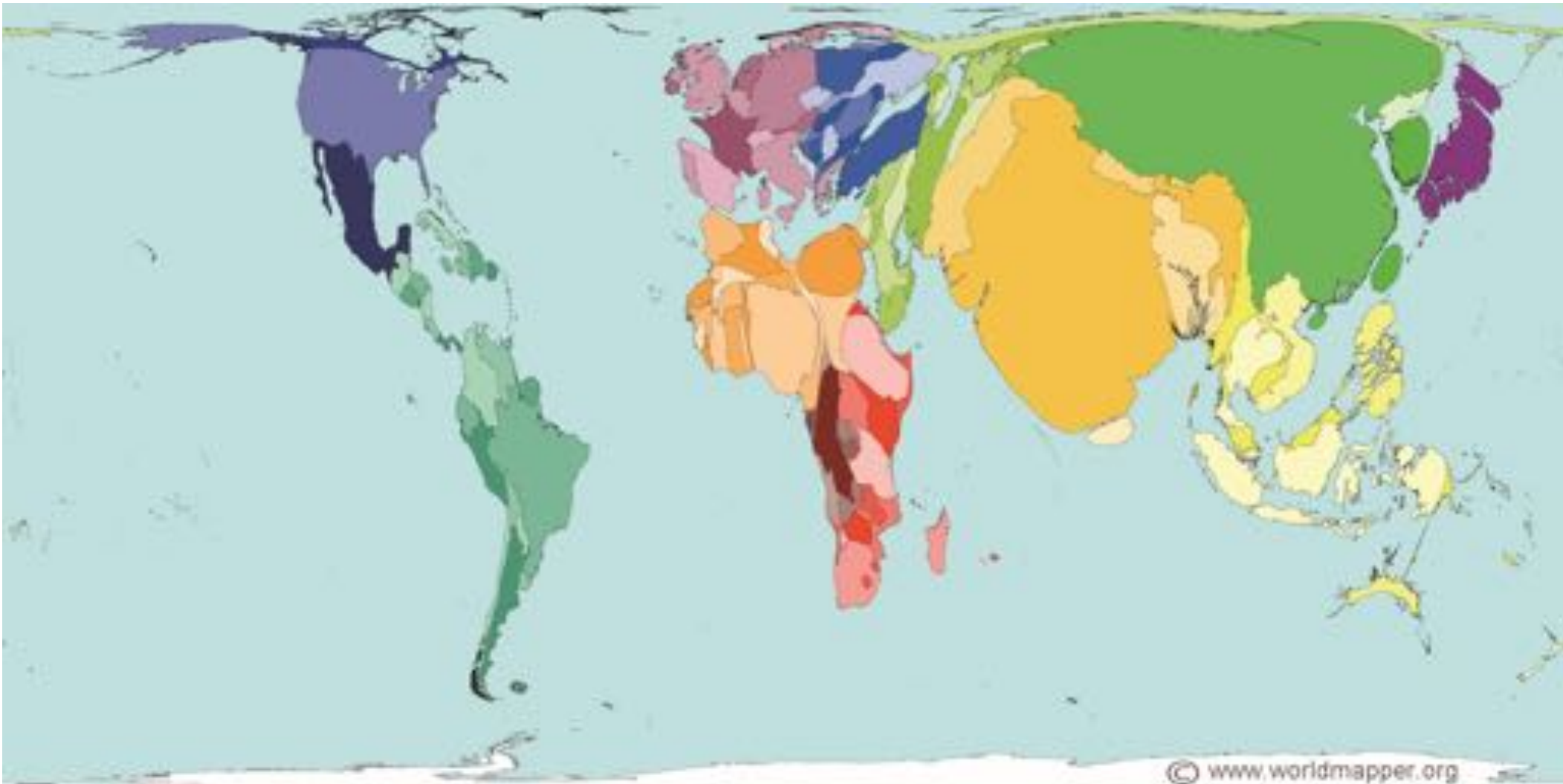
- we have *less than 5 percent* of the global population
- we consume 25 percent of the world's coal
26 percent of the world's oil
27 percent of the world's natural gas

By changing a little, we can change a LOT!!

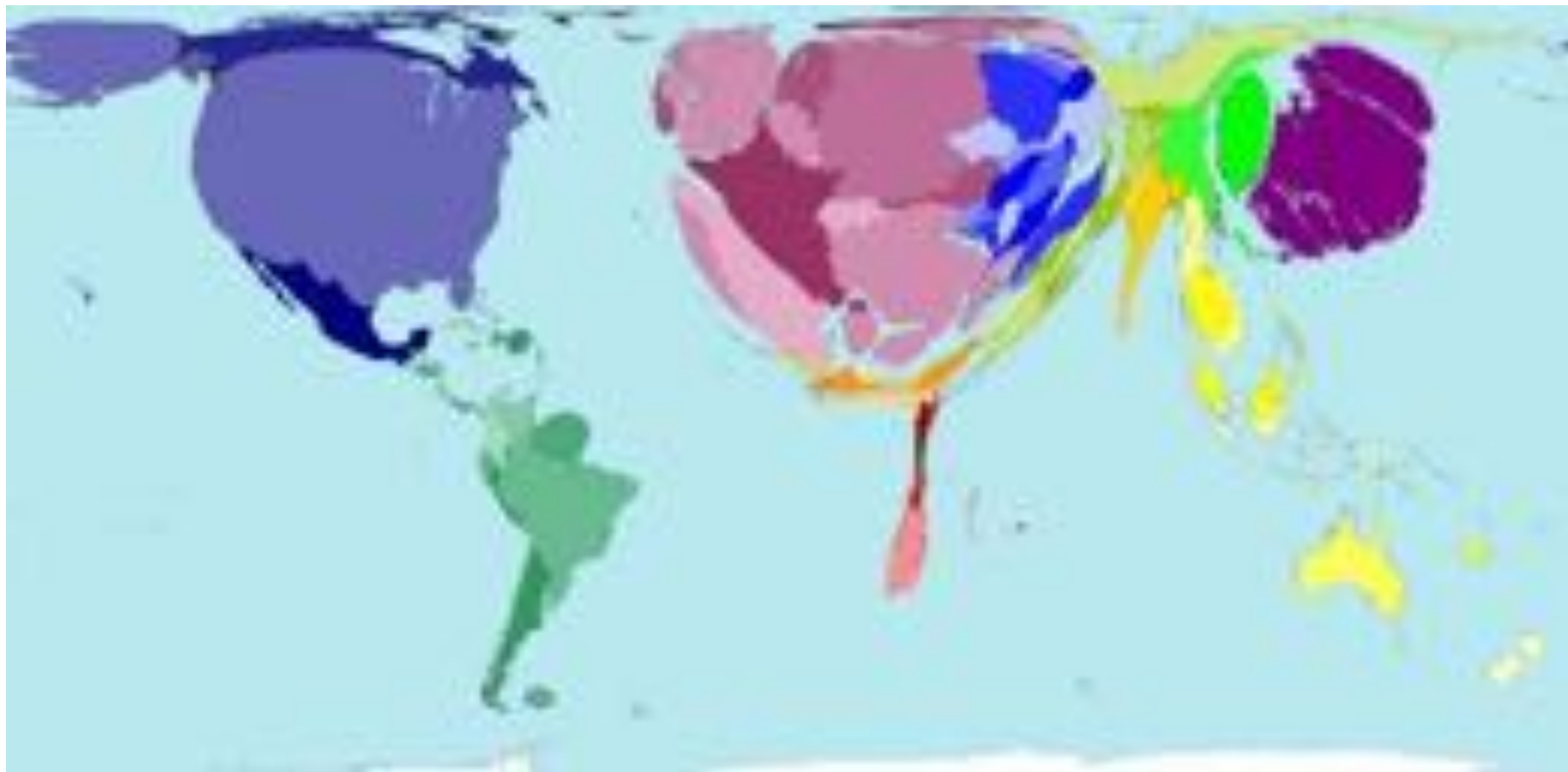
The World



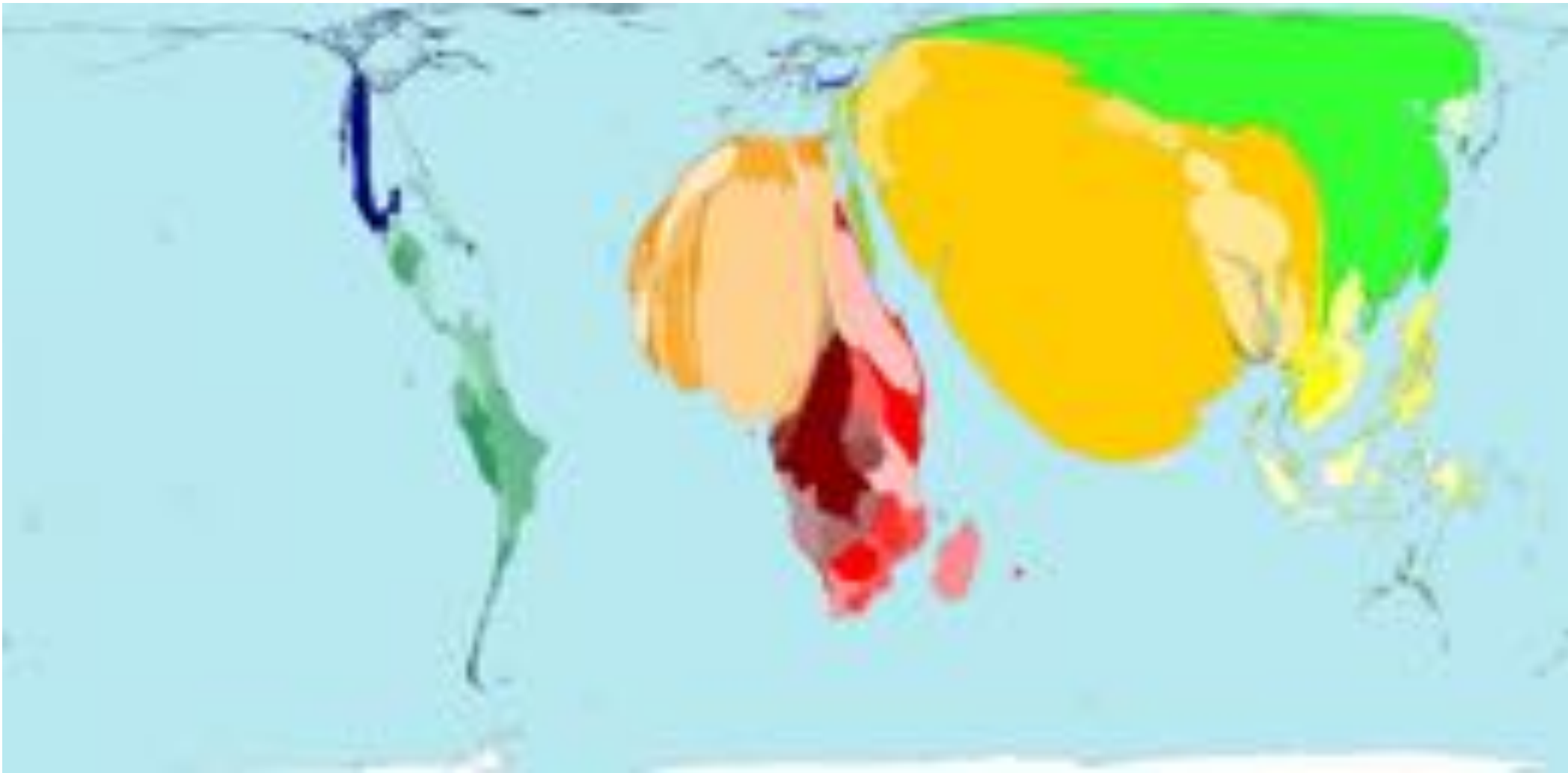
The world in terms of population



... in terms of automobiles



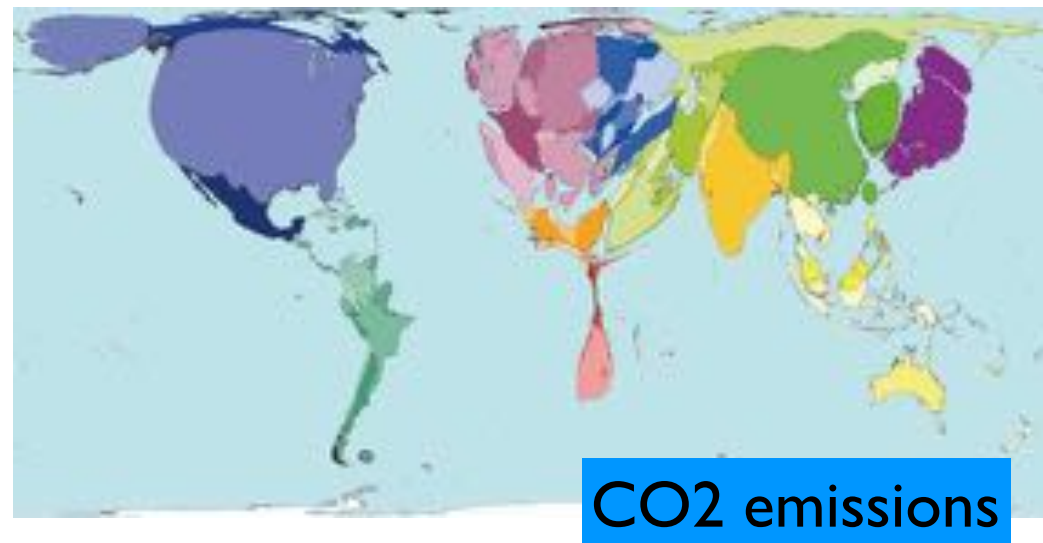
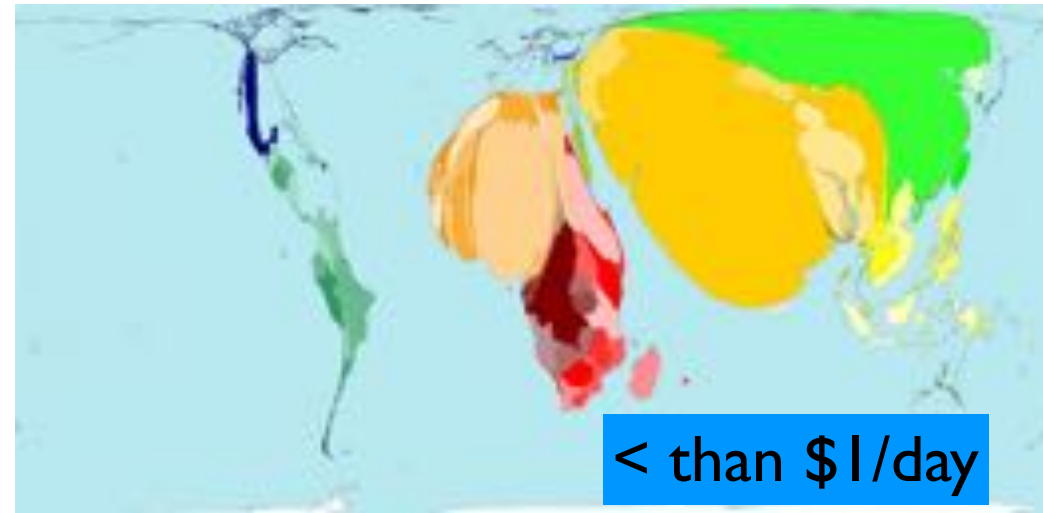
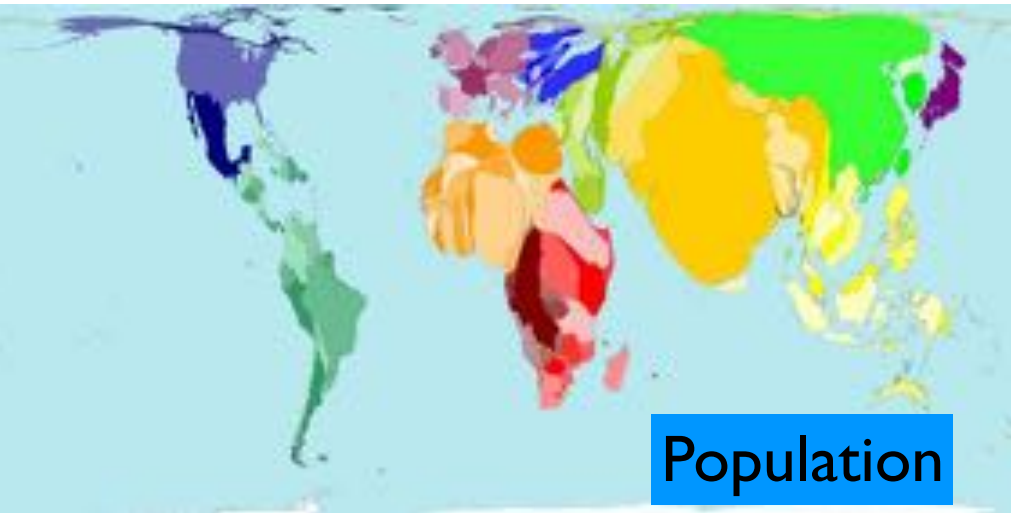
People living on < \$1 per day



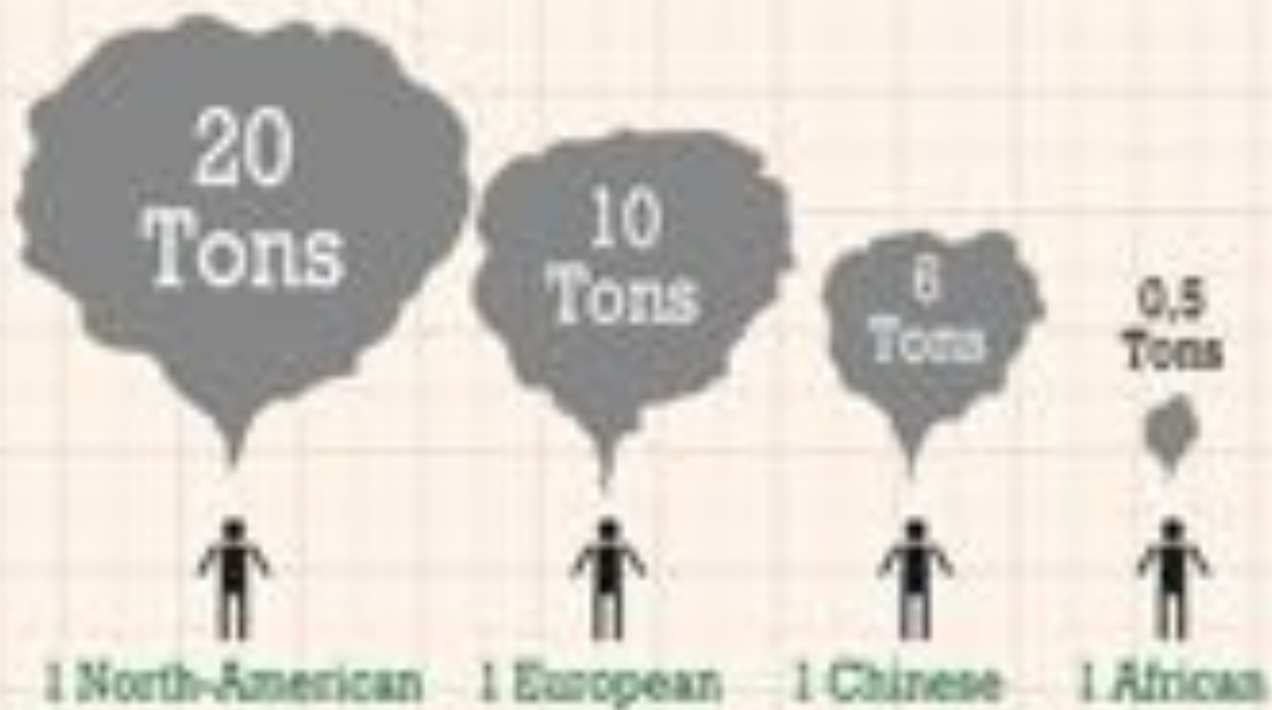
... in terms of CO₂ emissions



Compare for yourself!

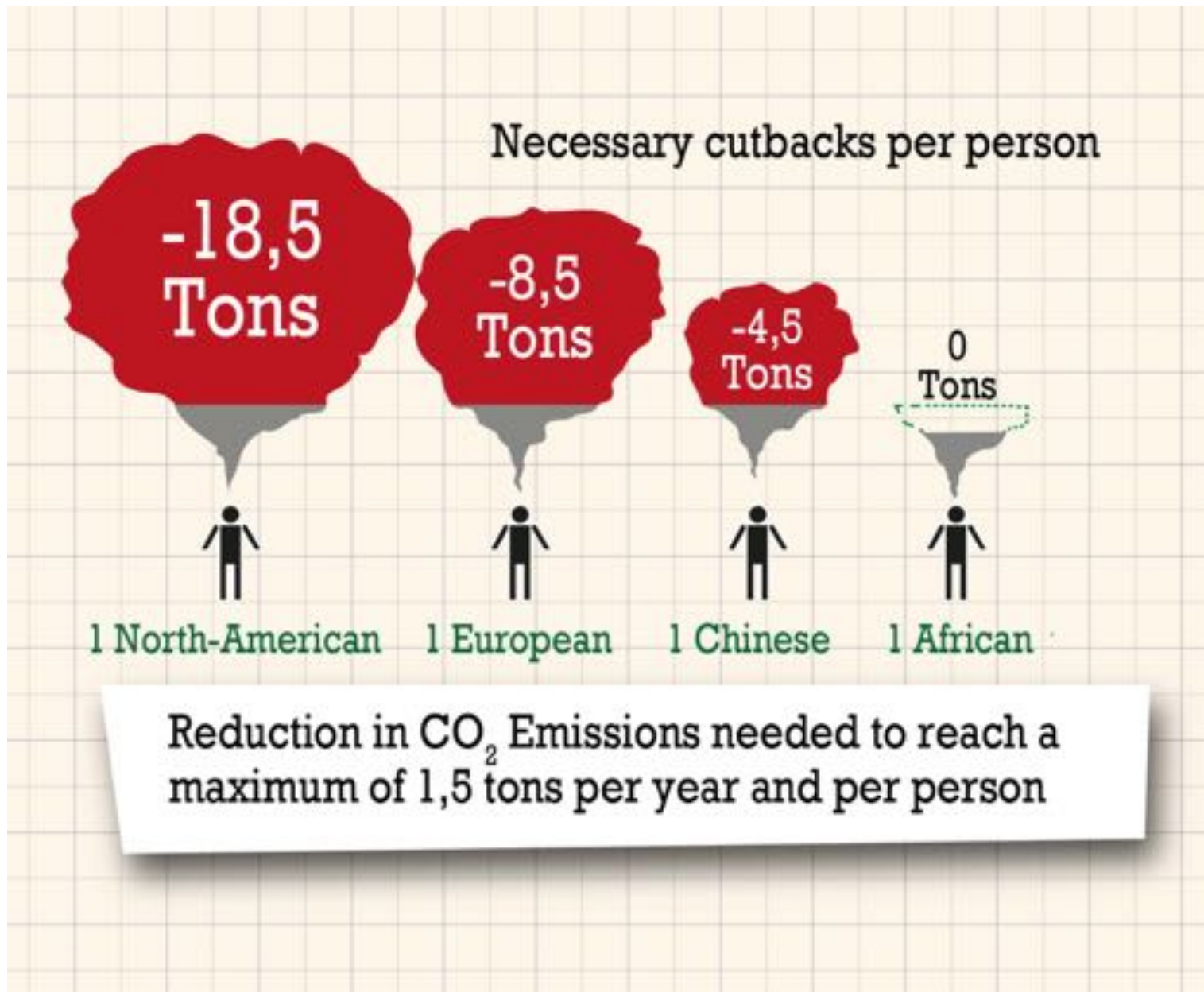


CO₂ emissions per person



CO₂ Emissions per person and per year

Necessary cutbacks per person

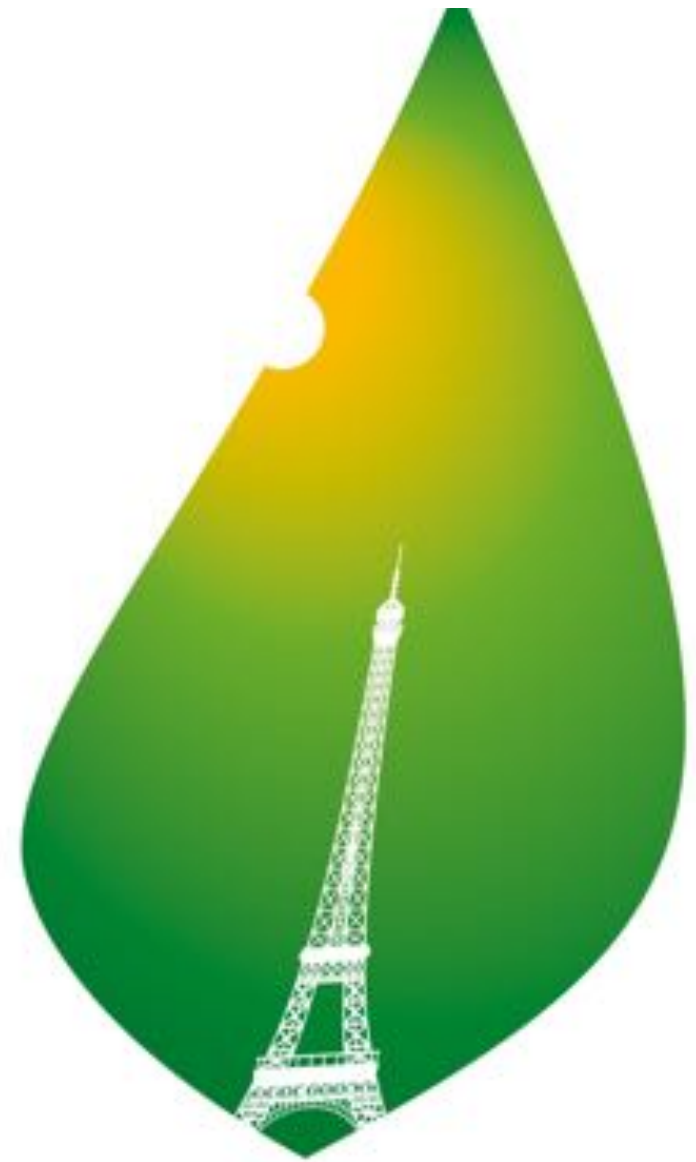


Documents informing international actions



Reflections on COP21

Laura Tucker & Hank Walker



COP21 • CMP11

PARIS 2015

UN CLIMATE CHANGE CONFERENCE

COP 21 : THE ISSUES



196
parties
(195 countries + the EU)

UNITED NATIONS
FRAMEWORK CONVENTION
ON CLIMATE CHANGE



A legally binding agreement



A reduction of CO2 emissions



Global warming limited to 2°C



Saturday, November 28



BIENVENUE À LA COP21
WELCOME TO COP21



Ici, les idées prennent de la hauteur
Where ideas take off

PARIS2015
COP21-CMP11



TOU
TRAN
M
NEAR



41
D
Nord
Stade de France Saint-Denis
Villiers le Bel Commerce Aéroville
Gare d'Orly
Crest



Welcome
COP21







Paris climate action

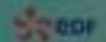
Blumenberg
Platz

CITIES FOR CLIMATE



Climate Summit for Local Leaders
DECEMBER 4TH 2015 - PARIS

#Cities4Climate



ALL PARTNERS OF PARIS

La production d'1 JOURNÉE de smartflower correspond à :

- 7 douches chaudes - avec chauffe-eau
- 17 lavages de lessive
- 50 tasses de thé - pour se réveiller ou se détendre
- 100 kilomètres de promenade verte dans un véhicule électrique

1 DAY of smartflower equals to:

- 7 hot showers - with continuous flow water heater
- 17 wash loads of laundry
- 50 cups of tea - for waking up or relaxing
- 100 kilometers of clean driving in your electric car

Day 1, November 30, 2015

Heads of State from 195 countries convene

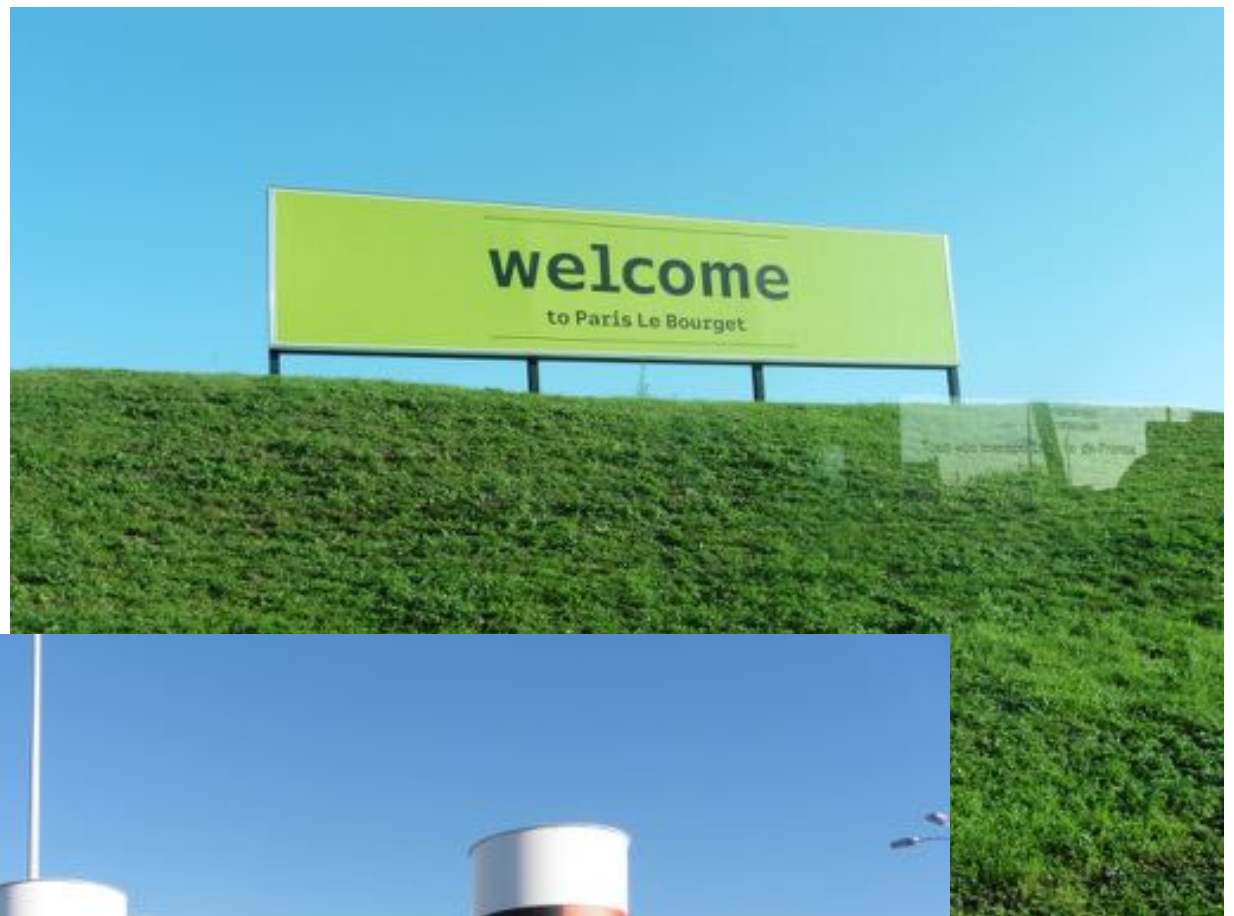




We are the first generation to feel the sting of climate change,
and the last one to do anything about it.

Governor Jay Inslee

The conference!



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Save up to
\$17,000 per year¹
per worker by
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inventory instead
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Printing a
Classic





Bienvenue

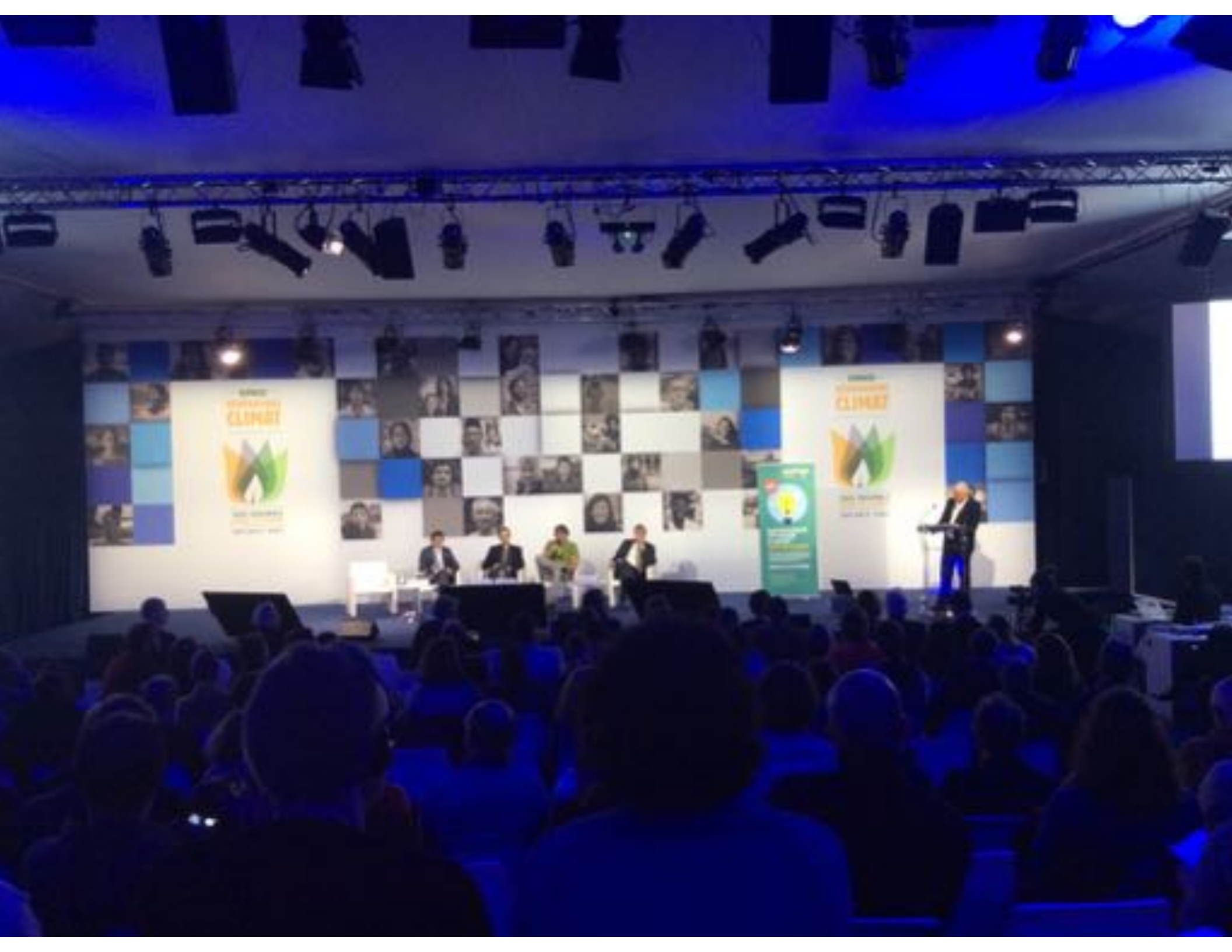
MAT

— ESPACES —
GÉNÉRATIONS
CLIMAT



TOUS ENSEMBLE
POUR LE CLIMAT

cop21.gouv.fr #COP21





**THE PLANET
HAS ALREADY SEEN
WORSE.
WE HAVEN'T.**

IF WE DON'T ACT,
WHO WILL?

**coalition21
climat**

#climate21 - coalitionclimat21.org

Meanwhile, in the Blue Zone ...



Saturday, December 5th - Action Day!



Governor Brown

Minister Royal

Governor Inslee

Governor Sherrill

One of the driving forces behind the Paris agreements



Christina Figueres, UN Climate Change Official

with Ban Ki Moon and other officials at COP21 in Paris

Saturday, Dec. 12, 196 nations signed a first-ever climate change agreement!







PARIS HISTORIQUE - NY - RUE DE RIVOLI

“For the first time, every country in the world has pledged to curb emissions, strengthen resilience and join in the common cause to take common climate action.”



April 22, 2016

COP21 draft is signed at the UN!



**SYSTEM
CHANGE
NOT
CLIMATE
CHANGE**

 **Global
Justice
Now**

Reasons for Hope on an **international level**





Congratulations
COSTA RICA!
the country is set to go
100% RENEWABLE
BY 2021

**51% of the renewable energy
in Germany is owned
by citizens and farmers,
not energy companies**







**THE AMOUNT OF SOLAR ENERGY THAT HITS THE EARTH IN
A SINGLE DAY COULD POWER THE WORLD FOR 27 YEARS.**

Solar-Powered Laptops

Sierra Leone, Africa



If a 14-year-old boy can build a working windmill from a broken bicycle to power his village in Malawi, we can solve the climate crisis



India is building
SOLAR CANALS
to produce energy while
slowing water loss



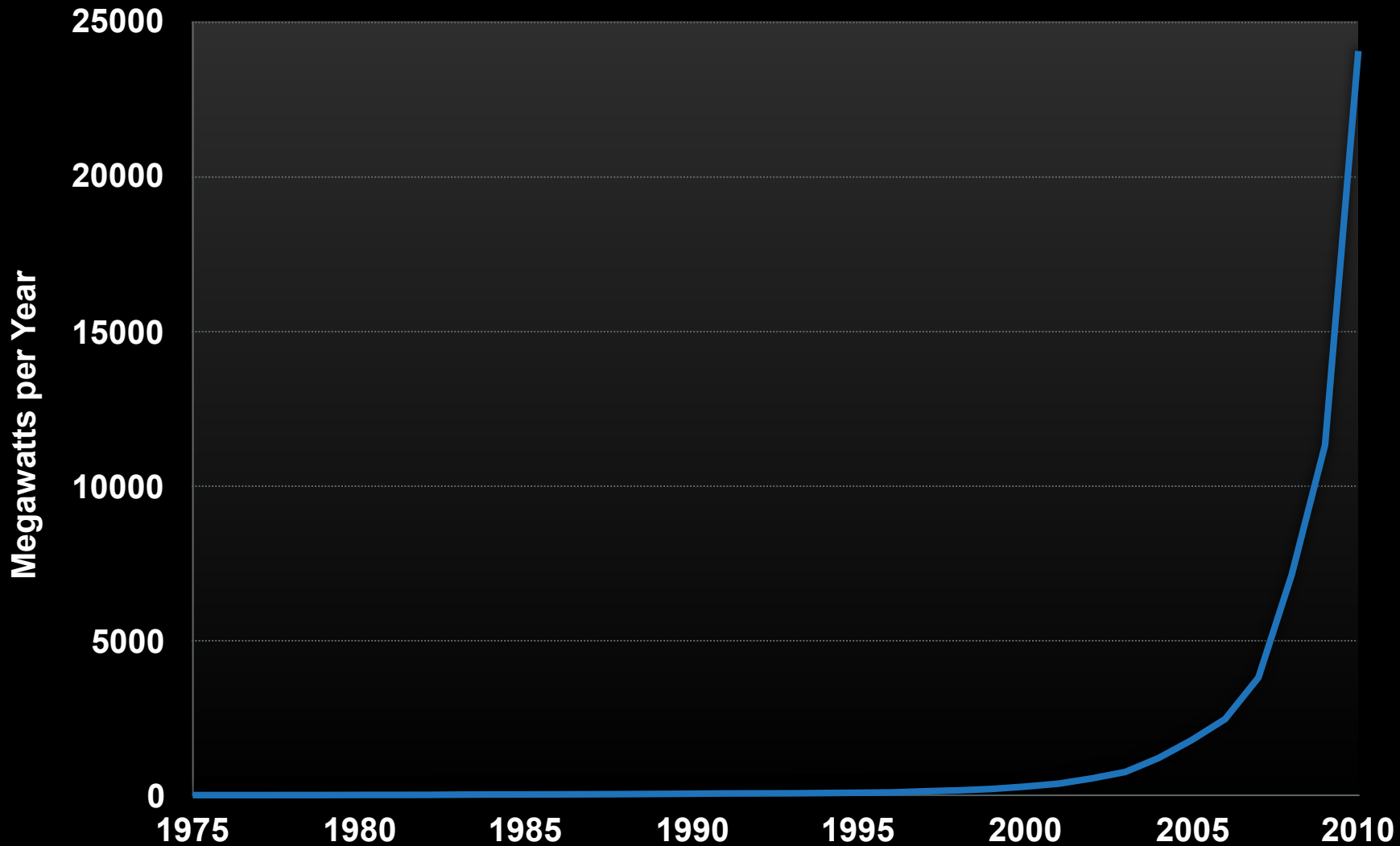
Wheal Jane Solar Farm

Cornwall, England

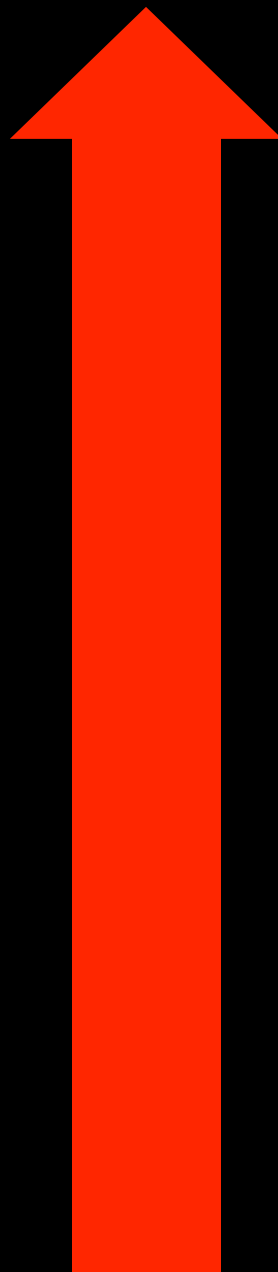
One of Britain's two largest solar farms, built on the site of a reclaimed tin mine

World Solar Photovoltaics Production

Annual Production 1975 – 2010

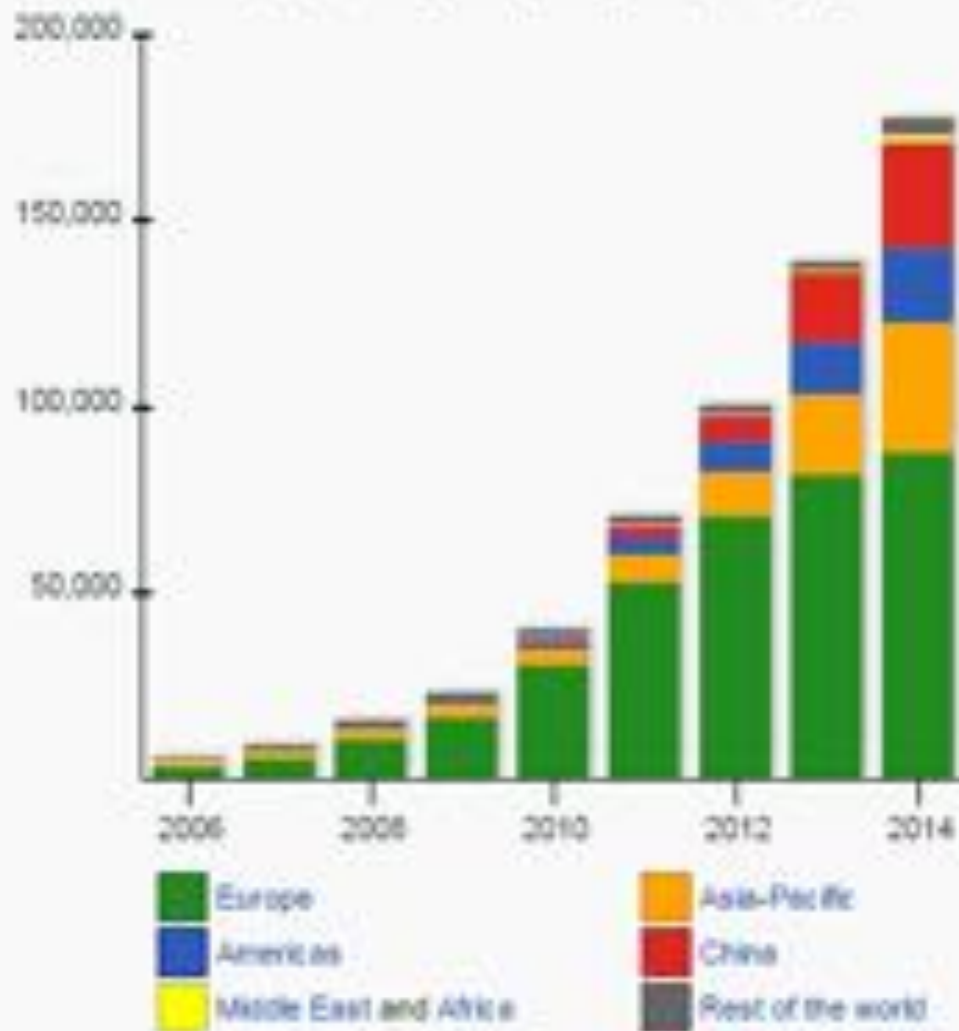


234,000!!!



Worldwide Growth of Photovoltaics

Cumulative Capacity in Megawatts [MW_p] Grouped by Region^{TJ17}



Recent and Projected Capacity (MW_p)

Year-end	2010	2011	2012	2013	2014 _e	2015 _p
Cumulative	40,336	70,469	100,504	138,856	180,000	234,000
Annual	17,151	30,133	30,011	38,352	40,000	54,000
Growth p.a.	134%	76%	0%	20%	5%	30%

FIGURE 4. RENEWABLE ENERGY EMPLOYMENT IN SELECTED COUNTRIES

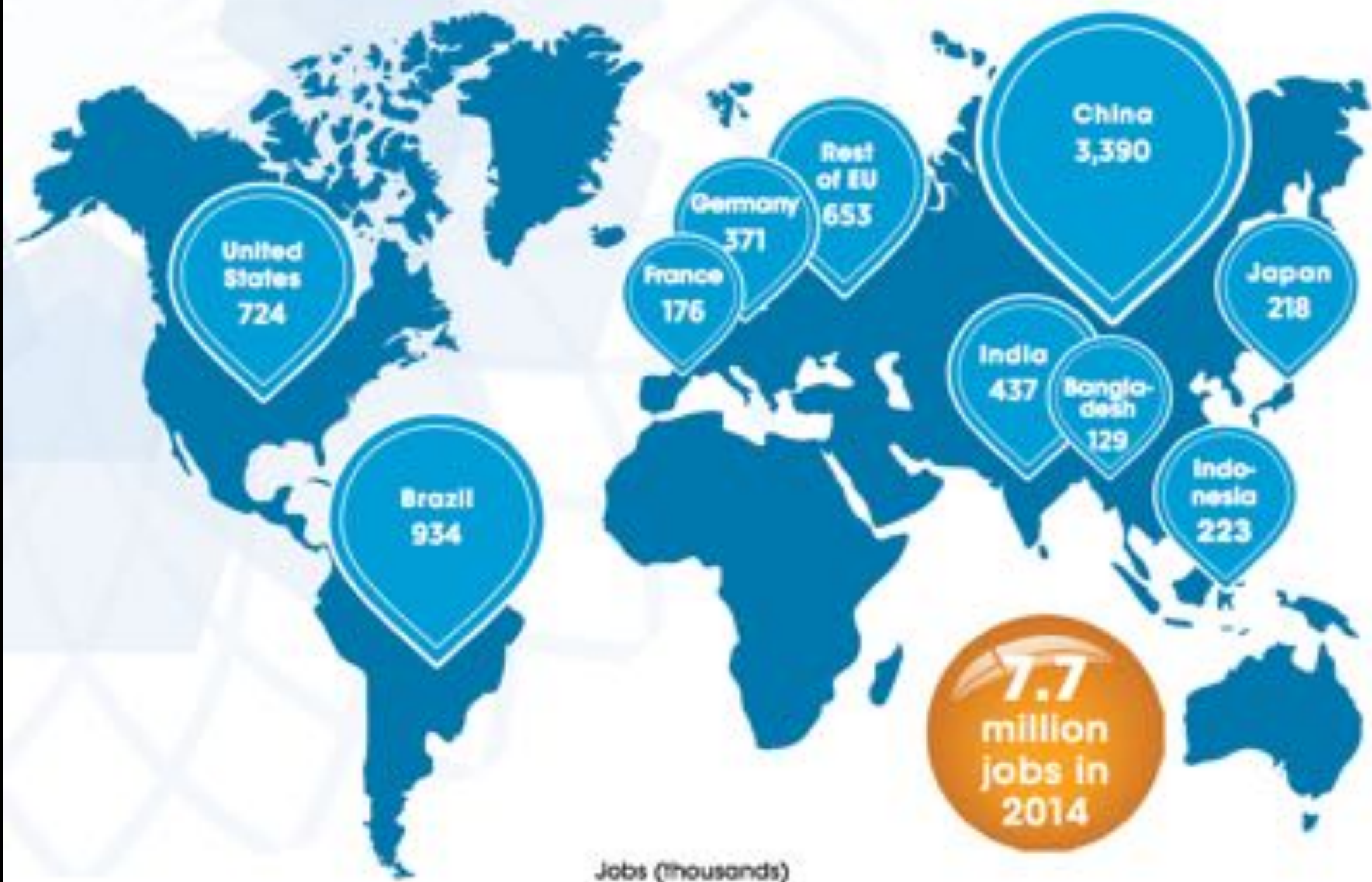
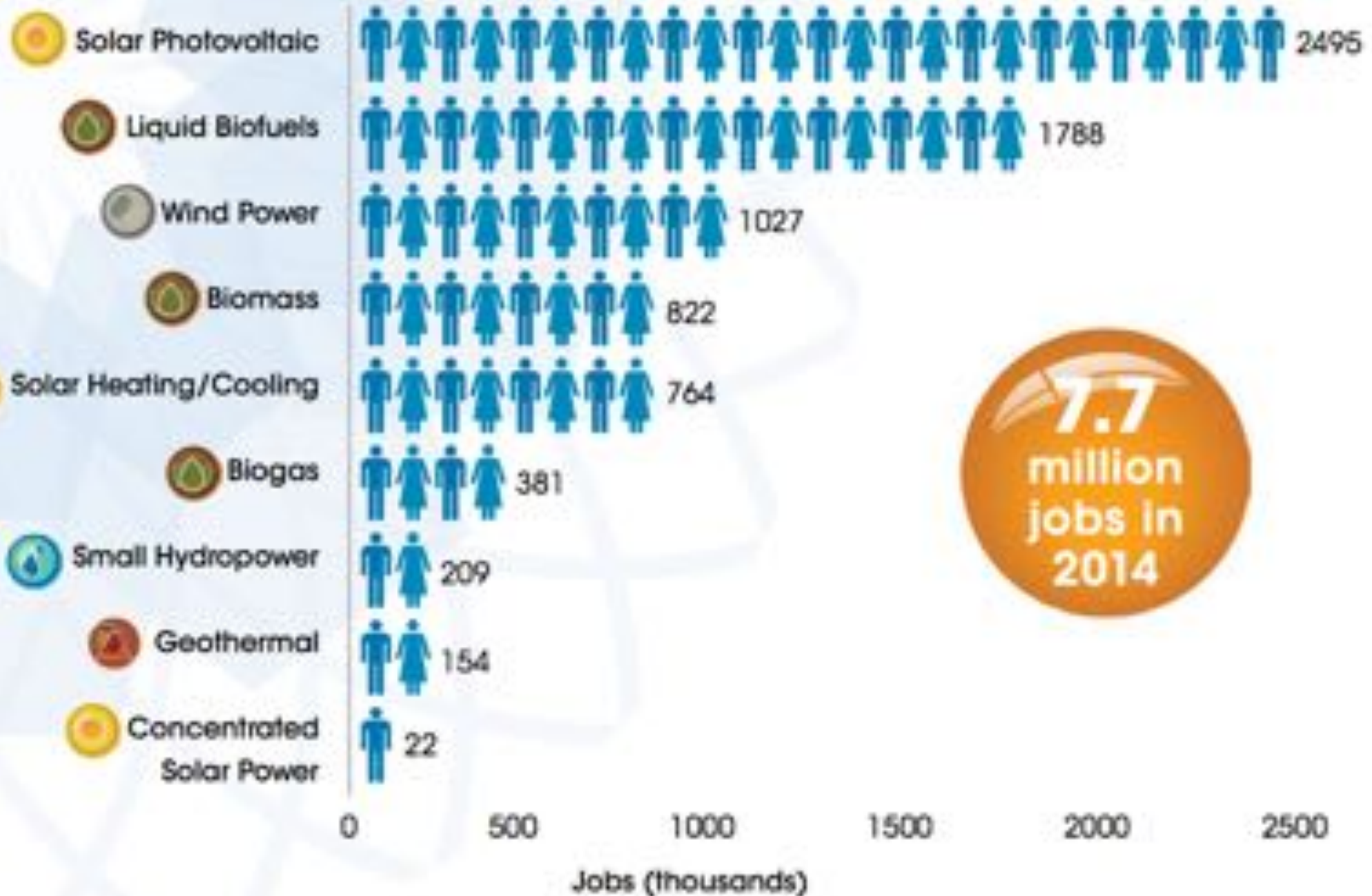


FIGURE 1. RENEWABLE ENERGY EMPLOYMENT BY TECHNOLOGY







April 13, 2016

December 12, 2016

