

Knowledge sharing on the latest report (SR15) on

Climate Change

from the Intergovernmental Panel for Climate Change (IPCC)

By Gregers Reimann

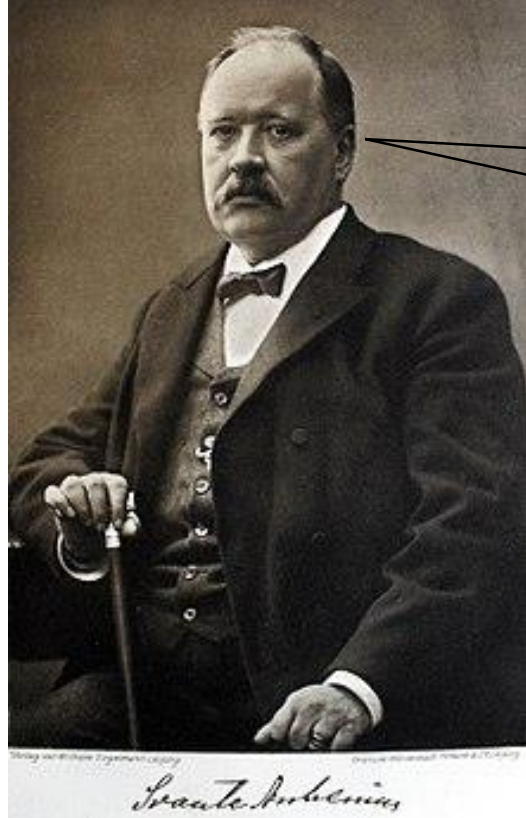
IEN Consultants

www.ien.com.my

12 October 2018

Climate Change 1896

The Swedish scientist Svante Arrhenius was the first person to predict that humans burning of fossil fuels would cause global warming



**Be careful of
icebergs!**



Titanic's first trip
from the UK to America, 1912

**Wow, this ship
is unsinkable!**

Climate Change 2018

IPCC Climate Report (SR15) released this week in summary says:

“We have 12 years to limit climate change catastrophe”

“Urgent changes needed to cut risk of extreme heat, drought, floods and poverty”



IPCC KEY MESSAGE:

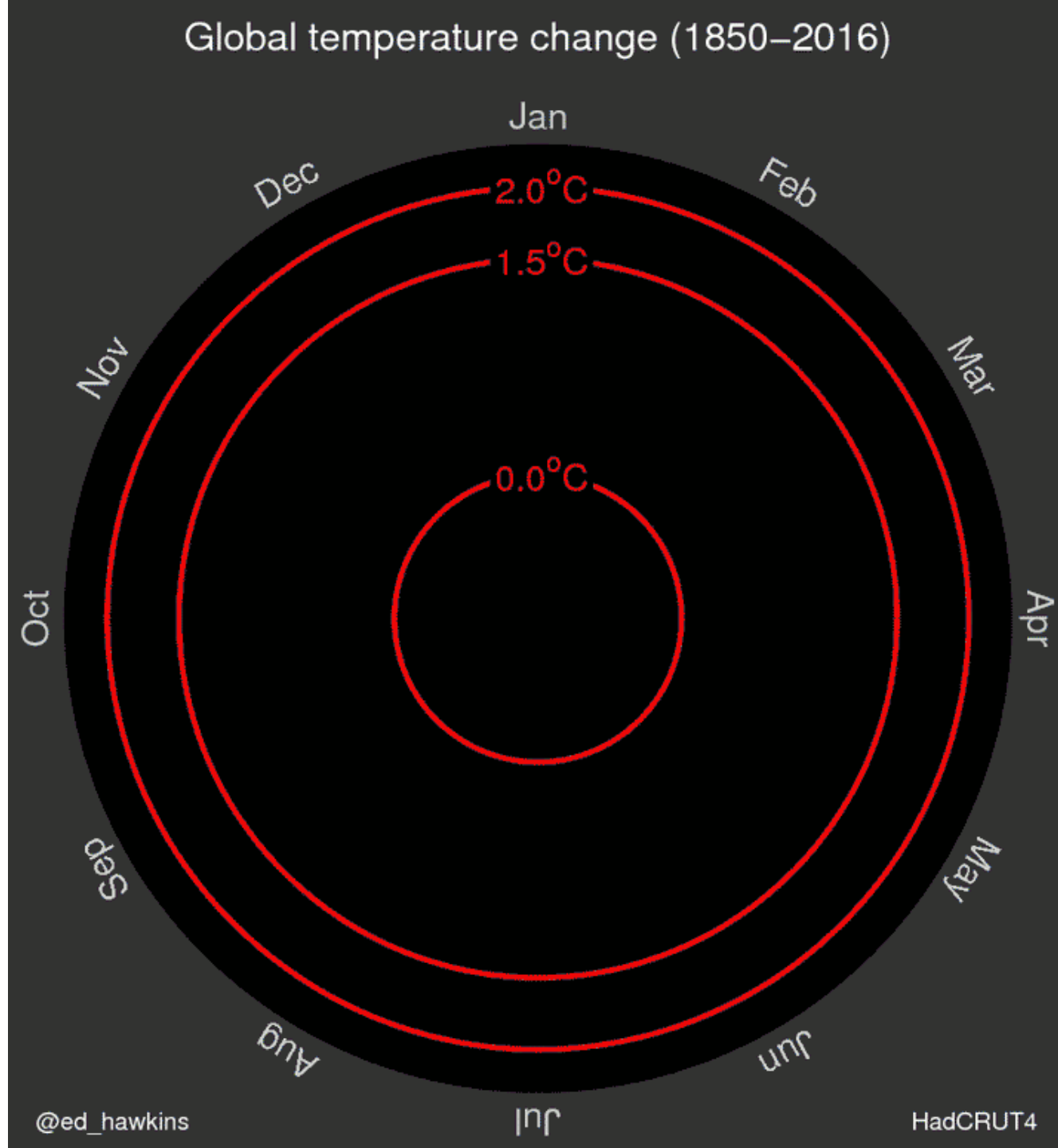
“Don’t go beyond
1.5°C global warming”

Which means the World must achieve:

- 45% carbon emission reductions by 2030
- 100% carbon emission reductions by 2050

Key carbon emission reduction mechanisms include:

- Technological advancement (energy efficiency)
- Land use change (e.g. reforestation)
- Shift to electric transport systems
- Carbon capture technology
- Political will



1.5°C vs. 2.0°C

Consequences of global warming

Earth has already warmed 1°C compared to pre-industrial levels. Currently, Earth has a warming rate of about 0.2°C per decade

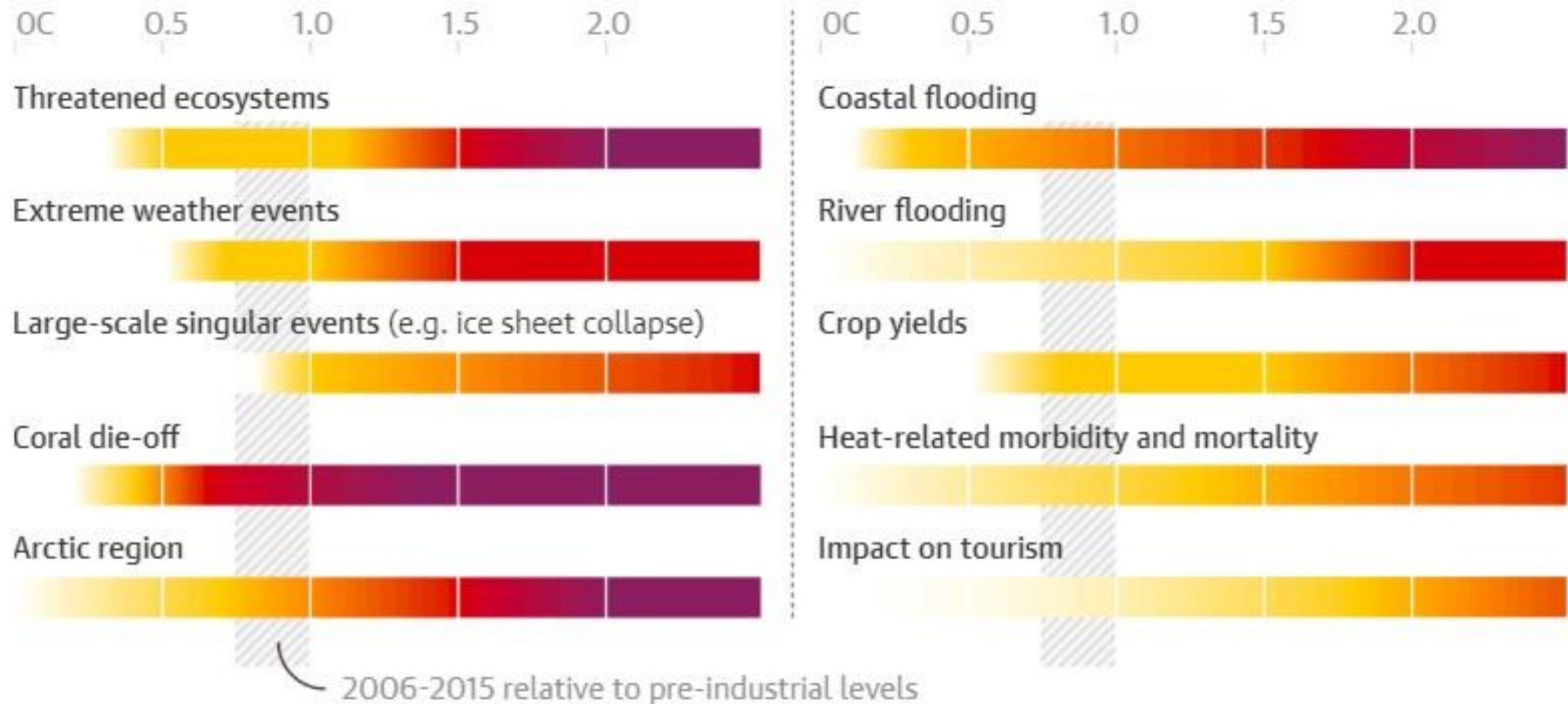
| Consequence | 1.5°C | 2°C |
|---|-------------------|---------------------------------|
| Coral reefs | 10-30% survive | 1% survive |
| Extreme heat waves | 14% of the planet | 33% of the planet |
| Water stressed population | | 2 times higher |
| Marine fishery loss of fish | | 2 times higher |
| Habitat loss of arctic polar bears, whales, seals and birds | | 10 times greater loss |
| Sea level rise by 2100 | | 100 mm more |
| Sea level rise effect on people by 2100 | | 10 million more people affected |

Rising temperatures, rising risks

Key to impacts and risks



Global mean surface temperature change relative to pre-industrial levels, C



Guardian graphic. Source: IPCC Special Report on Global Warming of 1.5C

<https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report>

What the IPCC SR15 final paper left out!

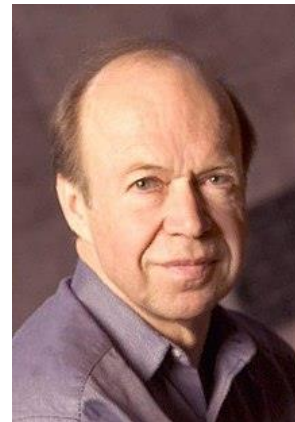
The final report is “**incredibly conservative**” because it did not mention the likely rise in climate-driven refugees and potential war, as well as the danger of tipping points that could push the world on to an irreversible path of extreme warming



Bob Ward

Grantham Research Institute on Climate Change

Dr. James Hansen
Director of Climate Science,
Awareness and Solutions
Earth Institute



Both the 1.5°C and 2.0°C course will take humanity into “**uncharted and dangerous territory**”

**The
Economist**

OCTOBER 1 5TH-16TH 2018

Dirty capital: the City of London

The fate of Jamal Khashoggi

Medicare for all

Vegans on the rampage

The next recession

How bad will it be?



October 2018

US economists win Nobel prize for work on climate and growth

William Nordhaus and Paul Romer honoured over two of most 'basic and pressing' issues



▲ Paul Romer (left) and William Nordhaus 'significantly broadened the scope of economic analysis by constructing models that explain how the market economy interacts with nature and knowledge'. Composite: Getty / AP

Steve McCoy to elaborate