

# Climate change: the underpinning of the 2030 Agenda for Sustainable Development Goals

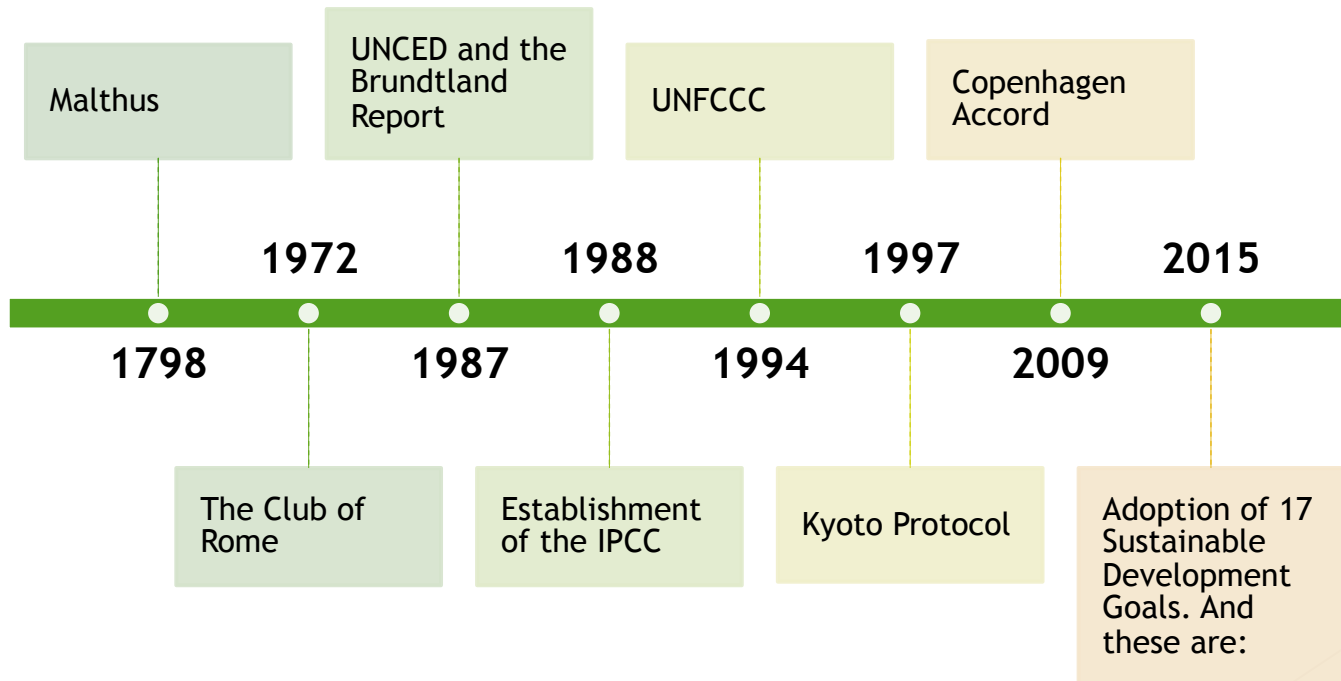


*“Either you can deal with what is reality, or you can be sure that the reality is going to deal with you”*

*Alex Haley*

Keith Cardwell  
October 2019

# A brief history



# THE GLOBAL GOALS

For Sustainable Development



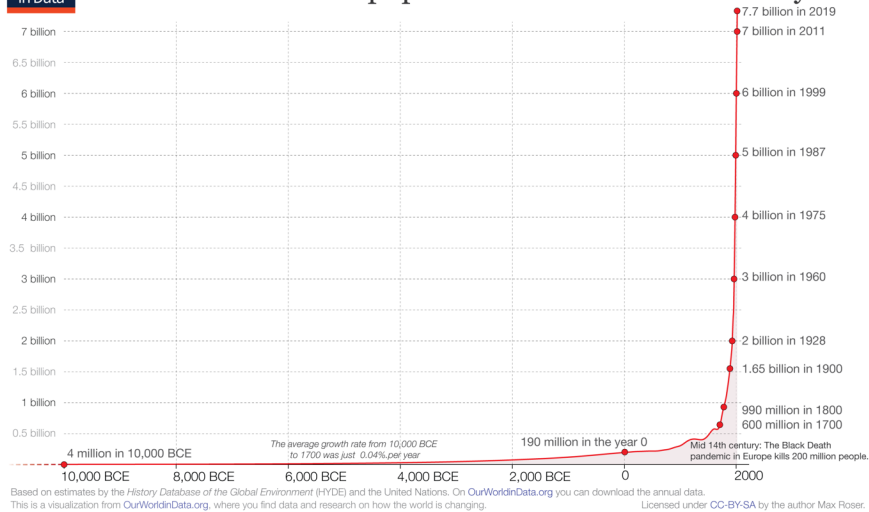
Source: <https://blog.geolsoc.org.uk/2018/12/10/geology-and-the-un-sustainable-development-goals/>



- ▶ 1990 - 2015 reduction so far
- ▶ Developing countries still considerably poor
- ▶ Internal reasons
- ▶ External assistance needed



OurWorld in Data The size of the world population over the last 12,000 years



- ▶ Population increase
- ▶ Food requirement
- ▶ Limitations

Chart from: Roser, M., Ritchie, H., and Ortiz-Ospina, E., 2013. "World Population Growth".

- ▶ Food availability
- ▶ Increasing temperature
- ▶ Vector borne disease
- ▶ Heat waves



There are several pathways between climate change and human health

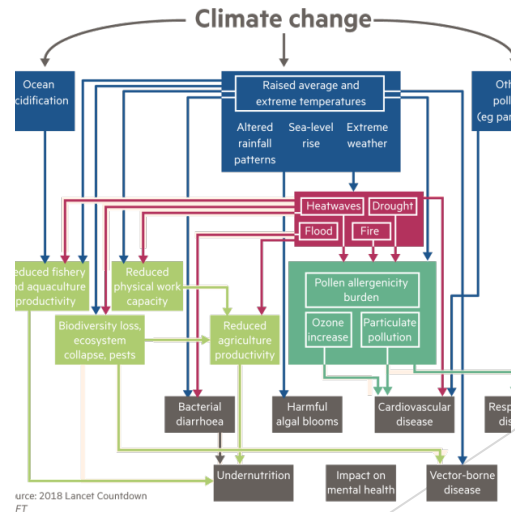
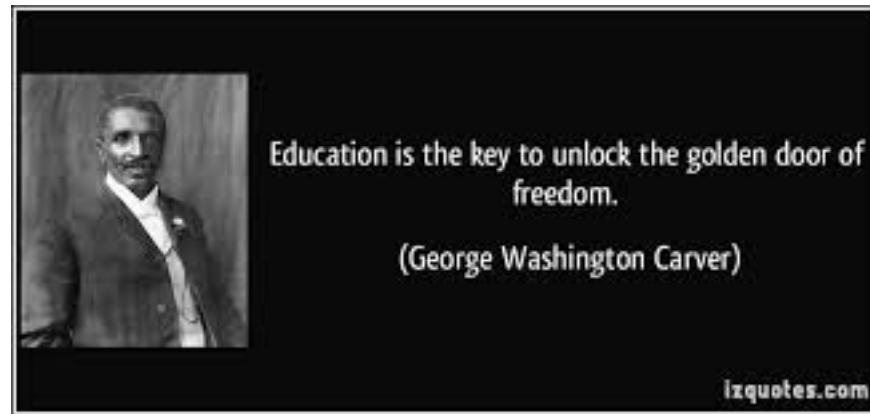


Chart from Dodd, D., 2018. Financial Times: Five charts on why climate change is bad for your health

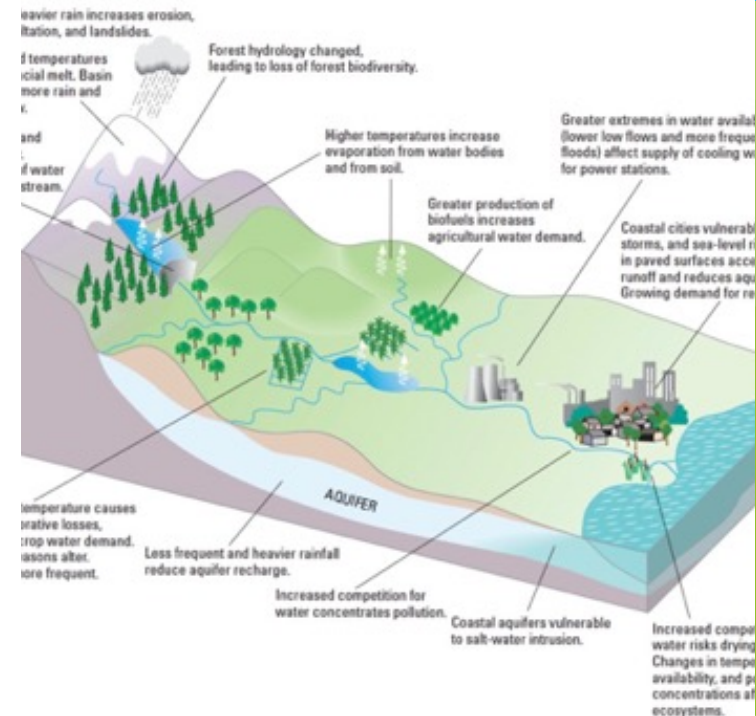


- ▶ Freedom to learn
- ▶ Involvement with others
- ▶ Gender and Racial differences
- ▶ Science and pseudoscience

# 6 CLEAN WATER AND SANITATION



- ▶ Need for water
- ▶ Hydrological cycle
- ▶ Problems





- ▶ Permanent sources
- ▶ Present reliance
- ▶ Pollution

▶ *Graphic from: Clean Energy Australia Report. 2019*

# 2018

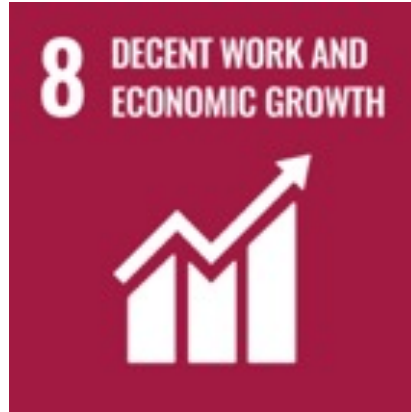
**WAS THE BIGGEST YEAR  
YET FOR**

# **RENEWABLE ENERGY**

**IN AUSTRALIA**

**7 AFFORDABLE AND  
CLEAN ENERGY**

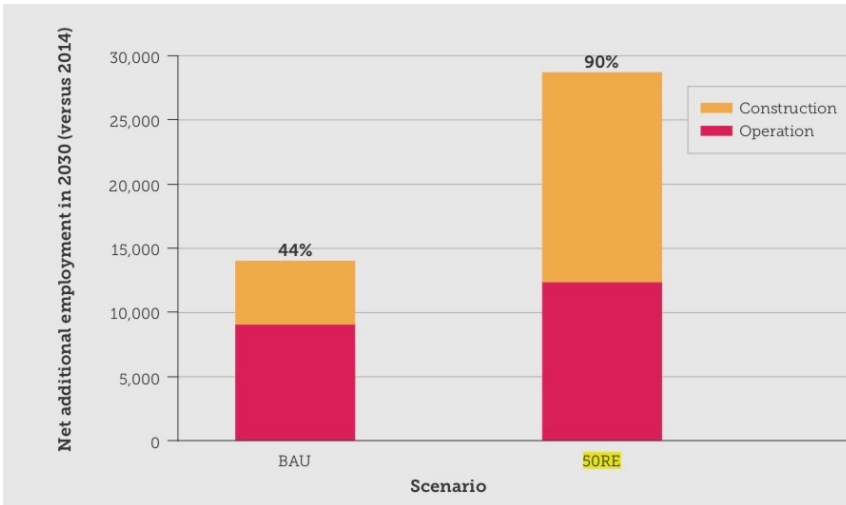




Net additional employment in the electricity sector in 2030 versus 2014, BAU (business as usual) and 50RE (50% renewable energy) scenarios [Climate Council, 2016]

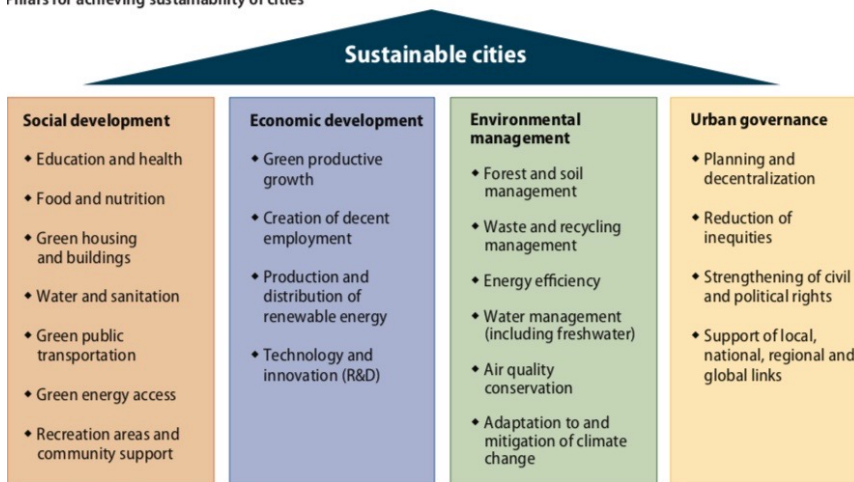
- ▶ Sustained economic growth
- ▶ Job reassignment
- ▶ Innovation
- ▶ Productive employment
- ▶ Pollution

▶ *Graphic from Climate Council. 2016. Renewable Energy Jobs: Future Growth in Australia*





Pillars for achieving sustainability of cities



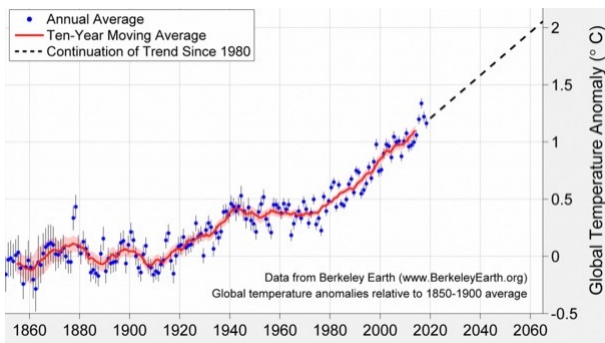
Source: UN/DESA, Development Policy and Analysis Division.

- ▶ Production
- ▶ Distribution
- ▶ Consumption
- ▶ Adaptation and Mitigation

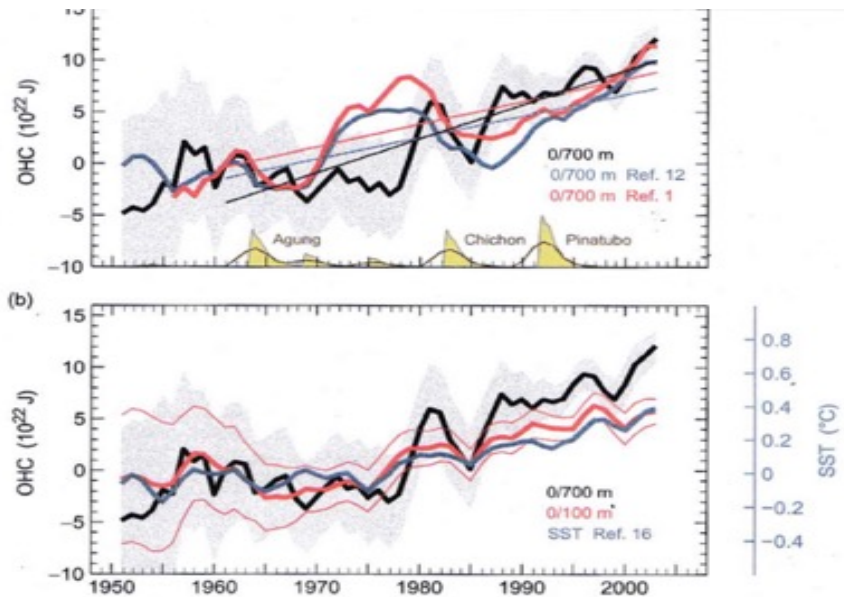
▶ *Graphic from UN World Economic and Social Survey. 2013*



- ▶ Change is accelerating
- ▶ Links to all



*Chart from: Berkely Earth. 2018. A measured approach: Climate Science + Strategic Analysis*



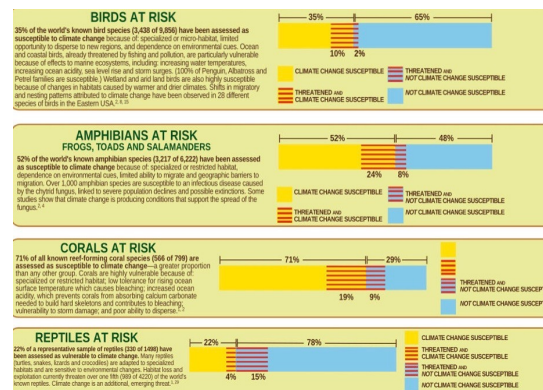
- ▶ Ocean warming
- ▶ Great Barrier Reef
- ▶ Economic concern

Estimates of Ocean Heat Content and Sea-Surface Temperatures.  
Charts from Siedler, G. et al. 2013. *Ocean Circulation & Climate*

- ▶ Protection
- ▶ Restoration
- ▶ Sustainability
- ▶ Biodiversity loss



▶ Chart from *The Global Education Project.n.d.*





KEYS TO UNDERSTANDING PEACE AND JUSTICE IN THE WORLD

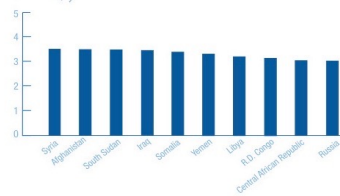
WHO DOES IT AFFECT?

Corruption bribery, theft and tax fraud cost \$1,260 million a year in developing countries. Some 68.5 million people displaced from their homes and 28.5 million children do not go to school because of armed conflicts. 31 world's jail population have been imprisoned without due process.

HOW IS THIS DISTRIBUTED AROUND THE WORLD?



The 10 least peaceful countries (with the lowest Global Peace Index) are in Asia (45%), Africa (50%) and Europe (5%).



MAIN CAUSES

Religious conflicts; the political and economic interests of countries; social and economic inequalities, which create a breeding ground for political extremism, conflict and violence; and the support of the arms industry by certain organisations and countries.

HOW CAN WE PROMOTE THEM?

The rule of law and human rights need to be strengthened; we have to reduce the flow of illicit arms; developing countries need to be helped to increase their exports and fair and open international trade to the benefit of all must be encouraged.



- ▶ Global partnerships
- ▶ Cooperation
- ▶ Implementation
- ▶ Provision of justice for all
- ▶ *Chart from Iberdrola.com*



# Summary

- ▶ **Climate Change creating extreme weather events affects the 2030 Agenda for Sustainable Development Goals as follows:**
  - ▶ 1. Poverty - increasing population with uncertain food production leading to
  - ▶ 2. Hunger - which increases and lack of consistent and adequate nourishment reduces the chances of
  - ▶ 3. Good Health and Well-being; also affected by increasing and excessive heat cycles and spread of airborne disease vectors
  - ▶ 4. Quality Education requires time. This is too often devoted to ensuring survival
  - ▶ 5. Gender inequality reduces overall knowledge contribution and
  - ▶ 6. Inequalities between countries can create difficulties in resource availability
  - ▶ 7. Clean Water and Sanitation is affected by disturbed localised hydrological cycles
  - ▶ 8. Existing inefficient, polluting (greenhouse gas producers) and temporary energy suppliers inhibit Affordable and Clean Energy production.
  - ▶ 9. Decent Work and Economic Growth inhibited also by the latter situation because division also affects
  - ▶ 10. Industry, Innovation and Infrastructure in belief systems created through lack of factual understanding that new work is easily foreseeable by involvement in newer technologies relating to environmental improvements.
  - ▶ 11. Sustainable Cities and Communities are affected by difficulties in resource allocation due to increasing population and spasmodic agricultural production through extreme weather events. This often leads to disparate and inefficient
  - ▶ 12. Production and Consumption.
  - ▶ 13. Climate Action affected by lack of knowledge and misleading information
  - ▶ 14. Life below Water is declining through such as coral bleaching from increasing heat patterns
  - ▶ 15. Life on Land is being reduced by inadequate adaptation of certain species to changing ecosystems by the accelerated frequency of extreme weather patterns
  - ▶ 16. Peace, Justice and Strong Institutions are often thwarted by conflict over resources such as water ownership. Overcoming such as this requires
  - ▶ 17. Partnerships for the Goals is often affected by lack of knowledge, understanding and competent leadership.
- It is clear that all of the 17 Sustainable Development Goals (SDGs) indicate a clear linkage to the one central theme: SDG 13 - Climate Action. Without question this issue underpins all other goals**



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