

氣候峰會的成效與挑戰

彭奕彰博士

香港理工大學

土地測量及地理資訊學系

Degrees and qualifications

- Doctor of Philosophy /
Master of Philosophy
- Master of Science in
Geomatics
- Postgraduate Diploma in
Geomatics
- Postgraduate-level subject-
based Study
- Bachelor of Science
(Honours) in Geomatics
- Higher Diploma in
Geomatics
- Minor Programmes

Admission

Degrees and qualifications

Bachelor of Science (Honour) in Geomatics (HKDSE JUPAS Code: JS3727)

Career Prospects / Academic Opportunities after Graduation

Graduates will become professional land surveyors, geo-information technology specialists or utility specialists as they specialise in these different streams.

Land Surveying Stream

- Professional land surveyors in government, statutory organizations, construction companies, consulting companies, land surveyors' firms
- Hydrographical surveyors & construction surveyors overseas

Geo-Information Technology Stream

- Geo-IT managers/specialists in logistics management, intelligent transport systems, environmental consultancy and urban planning, in both public and private sectors

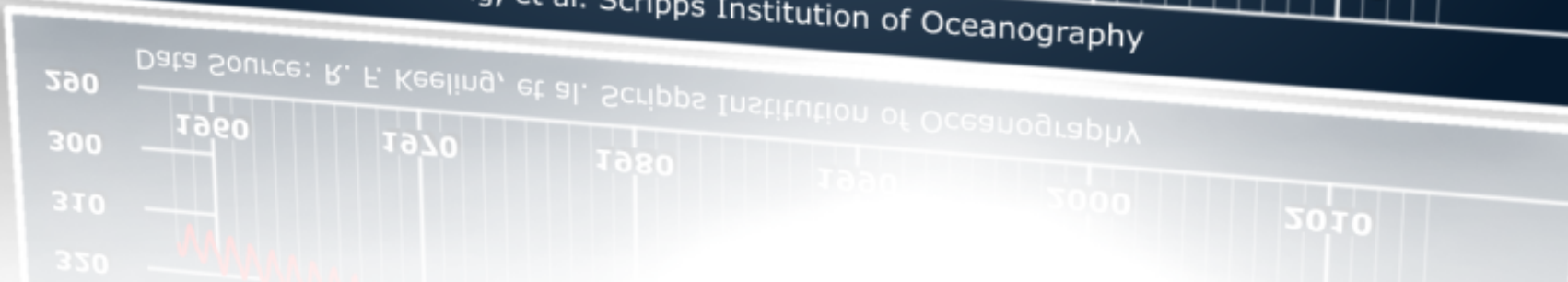
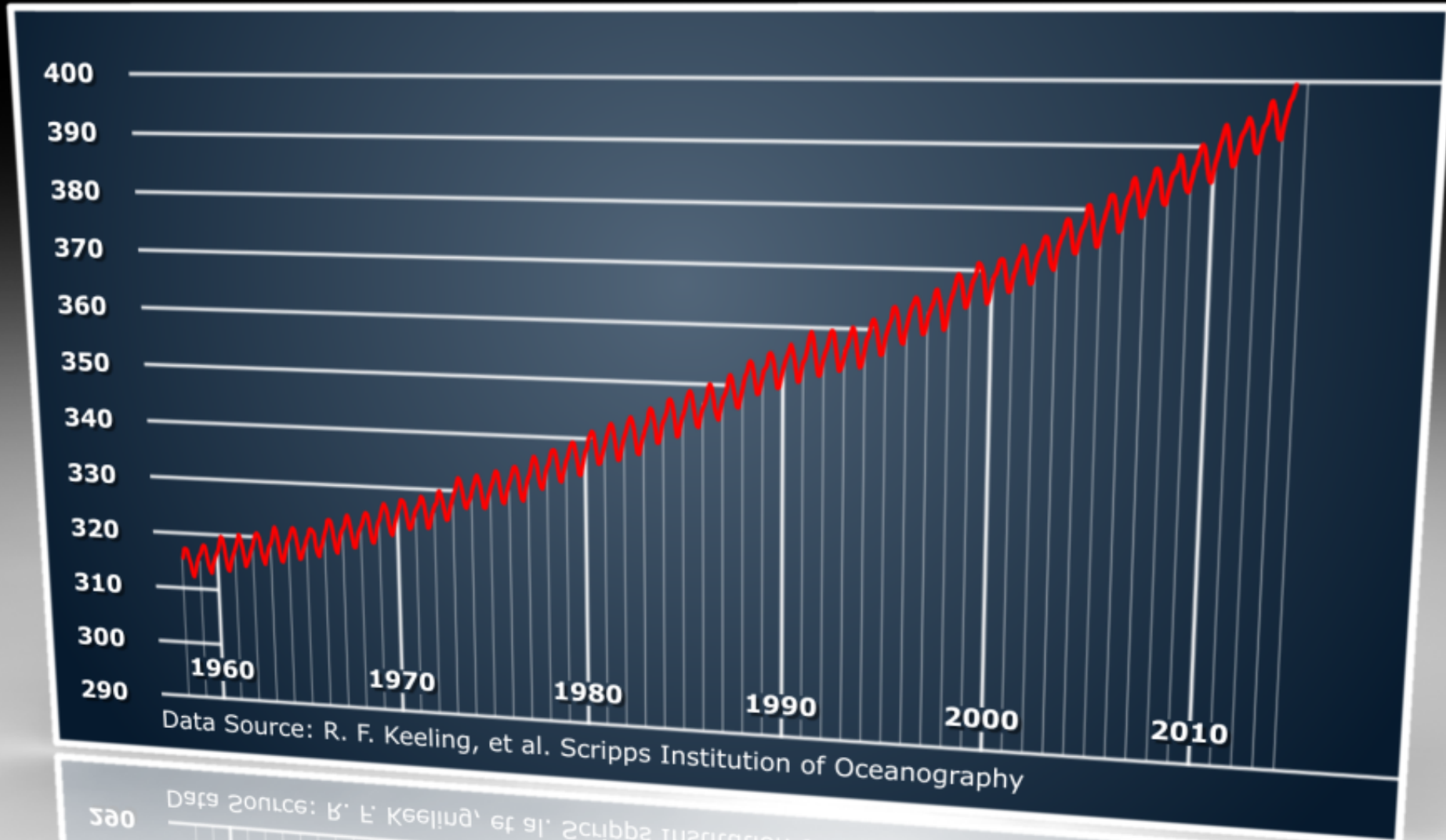
Utility Management and Surveying Stream

- Utility surveyors in planning, construction, maintenance and management of underground facilities and utilities such as power, water, drainage, communications and energy services

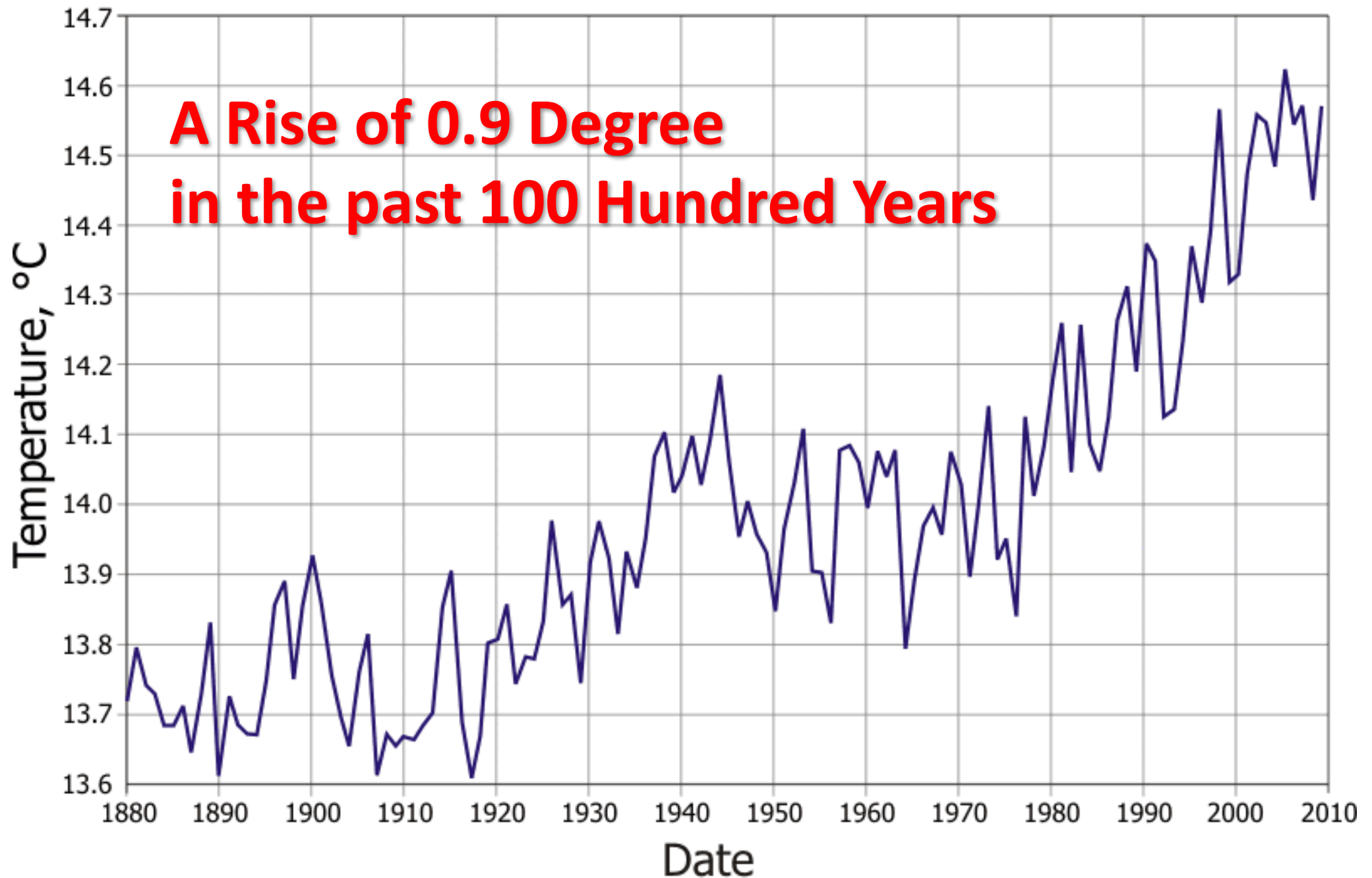
協議的主要內容 (1)

- Countries around the world pledged to do the near-impossible -- limit warming "well below" **2 degrees**, and below **1.5 degrees** above pre-industrial levels if feasible.
- 氣溫目標：遏制溫室氣體排放的長期目標，確保全球氣溫升幅於**2100**年之前「**遠低於攝氏兩度**」，並力爭達到升溫不高於**攝氏一點五度**。（第2條）

Atmospheric CO₂ (ppm)

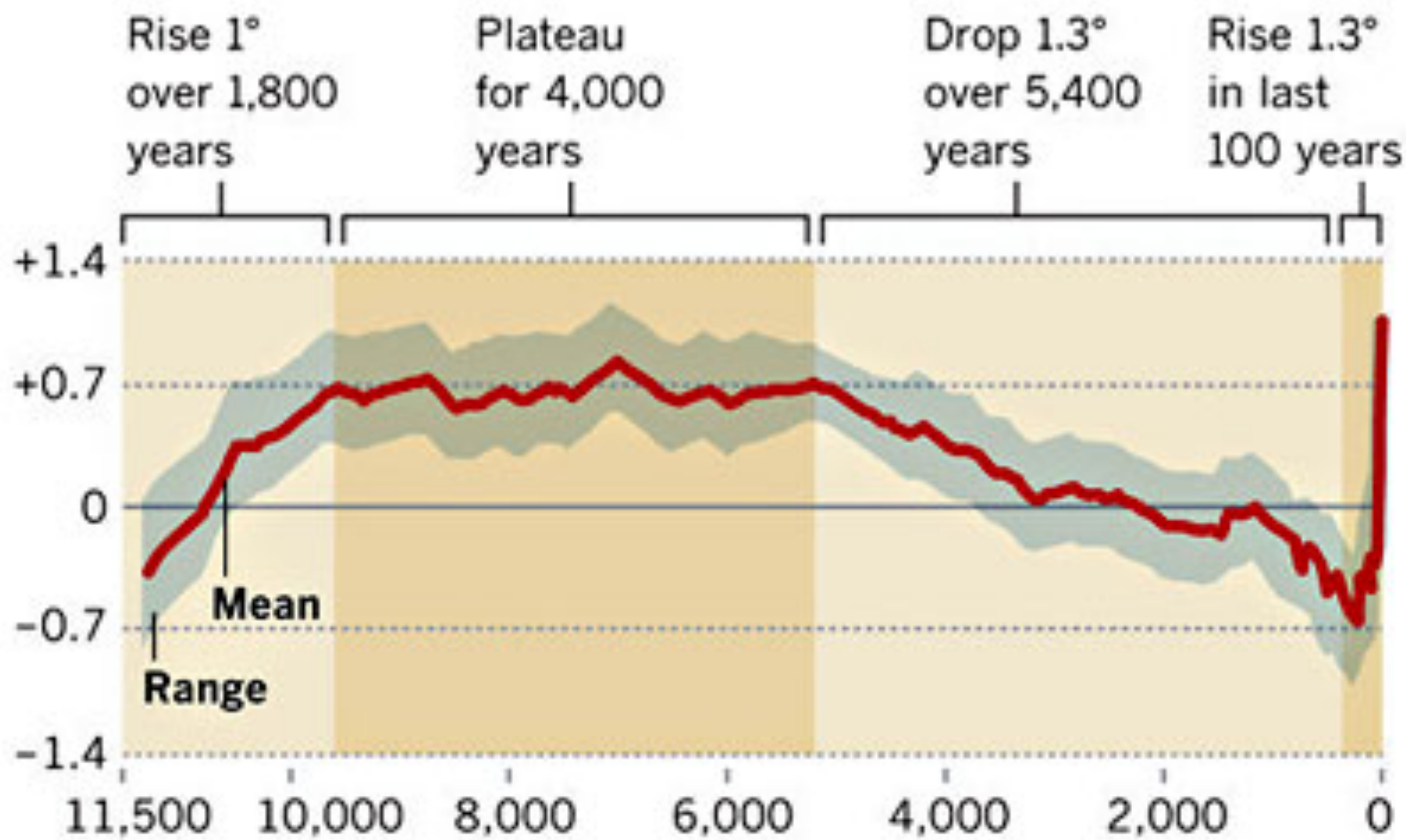


Average Global Temperature, 1880 to 2009



GLOBAL Land-Ocean Temperature Index in degrees Celsius, GISS Surface Temperature Analysis, Goddard Space Flight Center.
<http://data.giss.nasa.gov/gistemp/tabledata/GLB.Ts+dSST.txt>

Change in global temperatures (in degrees Fahrenheit):





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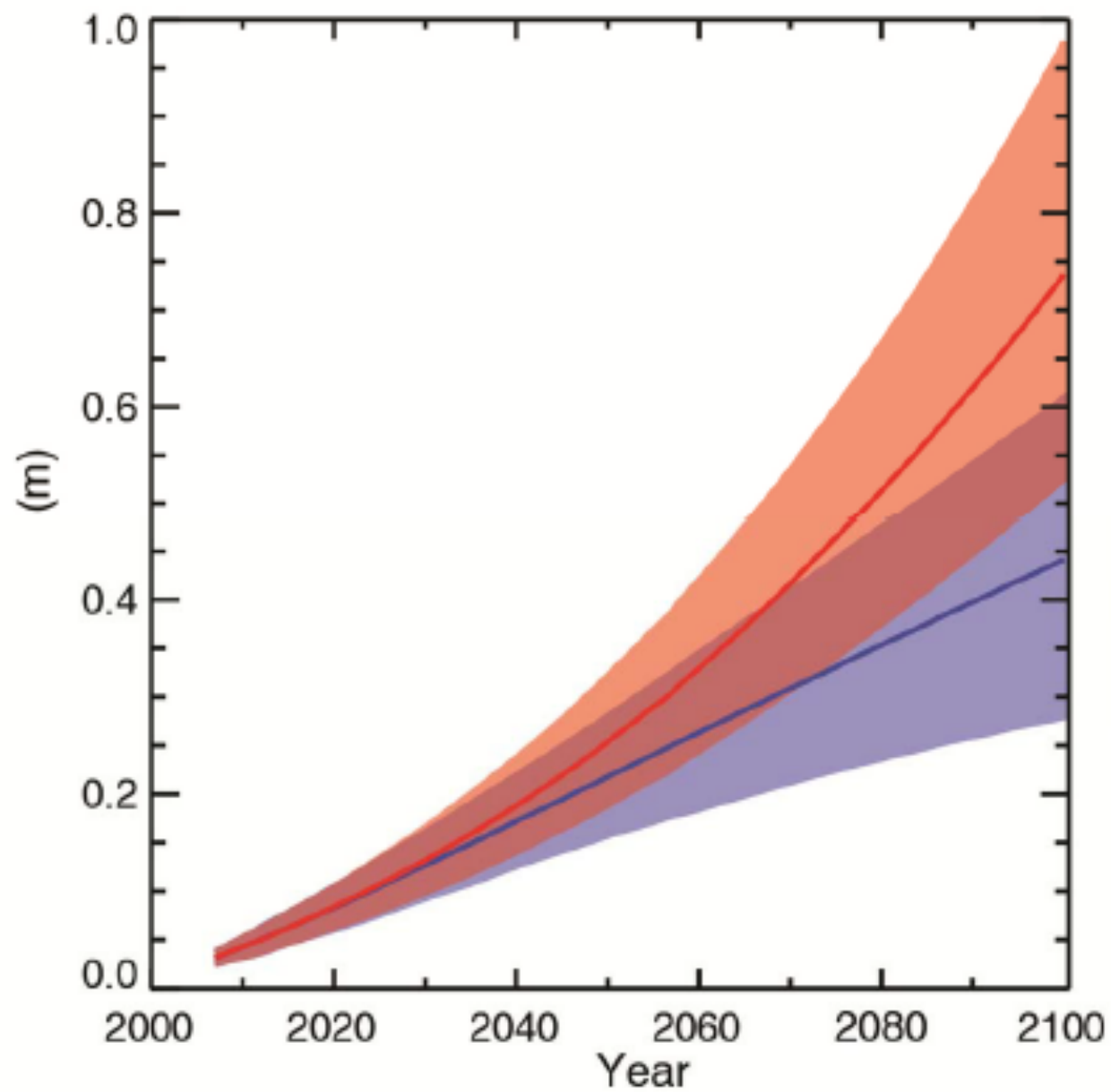
賽馬會氣候變化博物館

綠色社群——賽馬會減碳伙伴計劃

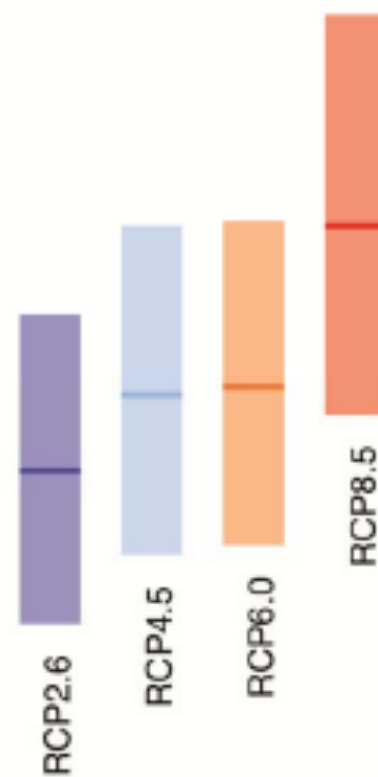
會議、論壇及社區教育活動



Global mean sea level rise



Mean over
2081-2100



Magnitude of Extreme Sea-levels

Extreme sea-levels (mCD) at Victoria Harbour			
Return period (year)	Extreme sea-level based on past data	Extreme sea-level after a mean sea-level rise of 0.59 m	Extreme sea-level after a mean sea-level rise of 1.4 m
2	2.9	3.5	4.3
5	3.1	3.7	4.5
10	3.3	3.8	4.7
20	3.4		
50	3.5		

A sea-level of 3.5 mCD similar to that during Typhoon Hagupit, a once in 50 years event, would become a biennial event after a rise of the mean sea-level by 0.59 m.

Note: mCD = metres above Chart Datum.

Chart Datum is 0.146 metre below Principal Datum.

<http://www.gaia.cuhk.edu.hk/index.php/zh-tw/mocc/virtual-tour>
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全屏幕

氣候變化的臨界點

How Climate Change Can Reach a Tipping Point

我明白了！由人類活動所排放的溫室氣體會導致氣候變化，人人都有影響，但到底我們能做些什麼呢？

I can now see that global climate change is caused by our excessive emission of greenhouse gases, and that it affects us all. But how is the climate going to change in the future?

科學家收集數據，模擬不同地帶下的氣候變化，并根據此預測氣候變化的範圍。

There are several possibilities, depending on a number of variables. Scientists have used climate modeling techniques to develop the scenarios as in the figure.



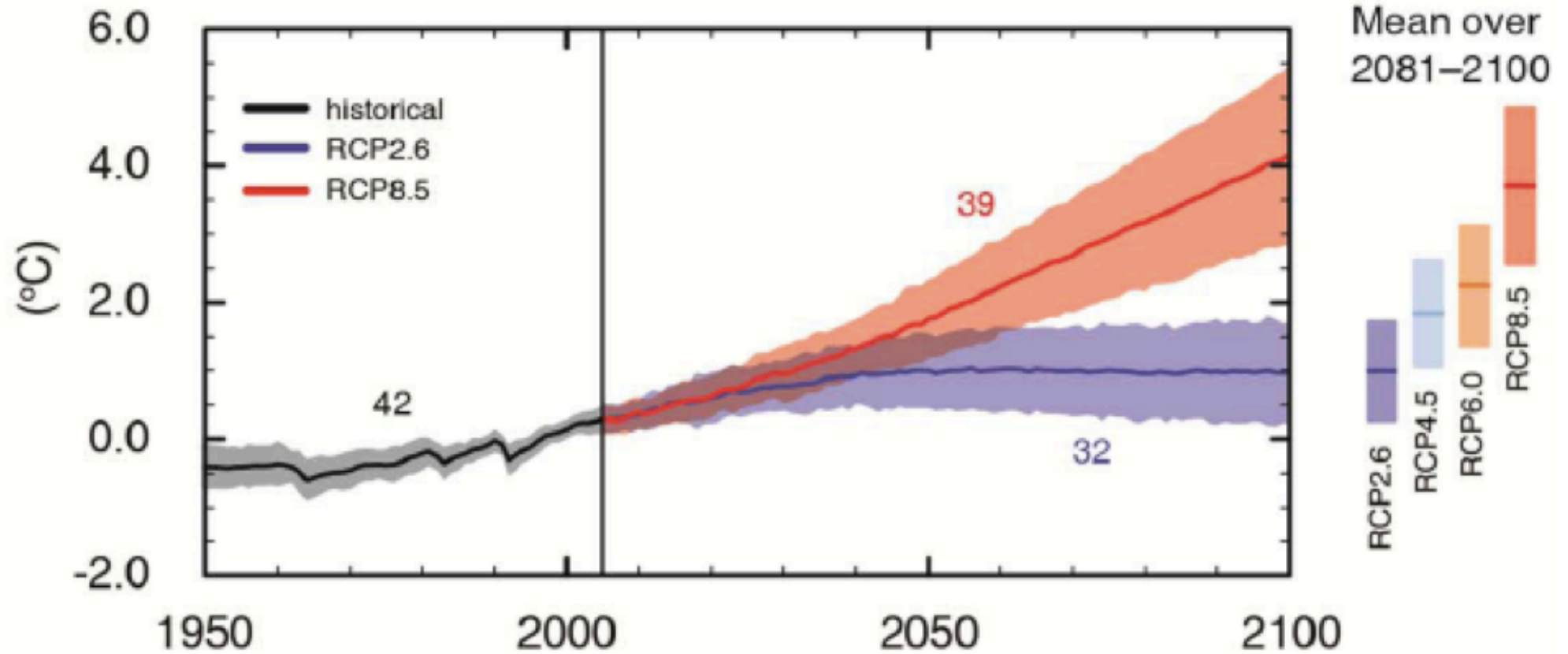


Slide 10 of 15 "Office Theme" English (U.S.)

10:29 AM 3/4/2016

(a)

Global average surface temperature change



To limit **2 degrees** warming....

- the era of fossil fuels is coming to a rapid close.
- That basically requires the world to move rapidly toward 100% clean energy, producing **Zero** net greenhouse gas emissions between about 2050 and 2080.
- And the climate action pledges that came about as part of this negotiation process only are expected to limit warming to **2.7 degrees**.

協議的主要內容 (2)

COP21: World leaders agree legally-binding climate deal in Paris

12 December 2015, source [edie newsroom](#)

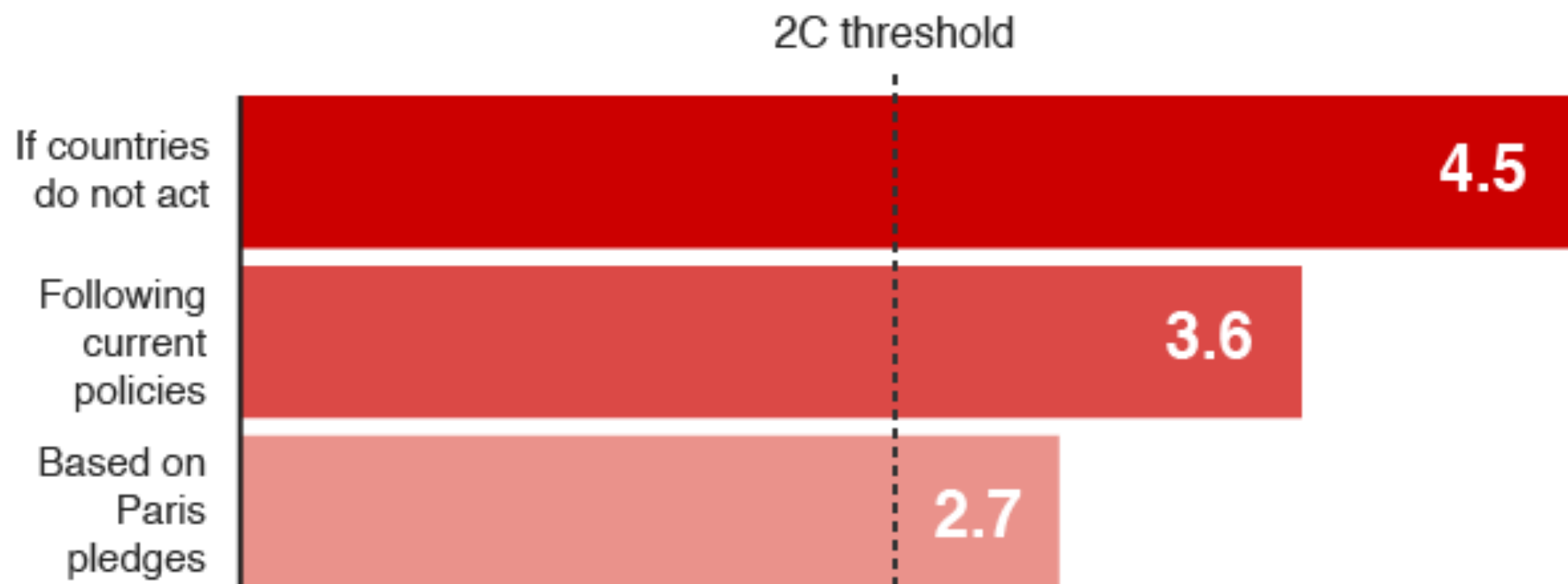
History has been made at the COP21 climate change conference in Paris as world leaders agreed to adopt an "ambitious and balanced" final deal, including a "legally-binding" agreement to keep global warming "well below 2C".



協議的主要內容 (2)

- 協議有法律約束力 (Legally binding)
 - “Every **five** years starting from a meeting in 2018, to review emission reduction targets.....”
 - “**\$100bn** fund from developed economies to help emerging and developing nations decarbonise their energy mix”
 - “What won't be legally binding will be the emission targets. These will be determined by nations themselves.....”

Average warming (C) projected by 2100



Source: Climate Action Tracker, data compiled by Climate Analytics, ECOFYS, New Climate Institute and Potsdam Institute for Climate Impact Research.

環保團體回應

- 氣候峰會隨着《巴黎協議》的簽訂而落幕，不少學者和氣候科學家擔心協議中，**只有部分內容具有法律約束力**，各國所採取的減排措施和定立的減排承諾只屬自願性質，協議並沒強制各國兌現她們的承諾。
- 事實上，單靠《巴黎協議》不足以對抗氣候變化，**協議只是為全球應對氣候變化設置了一個框架**，最終需要各國政府、企業和人民攜手努力，推動低碳經濟，共同邁向可持續發展的新時代。

- http://www.foe.org.hk/c/content/cont_page.asp?content_id=1673#.Vtj6rk1f1to

環保團體回應

- “協議中沒有列出任何具有國際約束力的減排目標，**也沒有提到「低於兩度」的目標如何能夠達到**，以至不少人（其中包括不少深諳氣候變化的科學家）極其憂慮，這個《巴黎協定》是「口惠而實不至」，最終只會像十八年前《京都議定書》中的減排方案一樣，完全無法兌現而不足以力挽狂瀾。”

– <http://world.350.org/350-hong-kong/2015/12/14/%e5%83%85%e5%83%85%e6%98%af%e9%96%8b%e5%a7%8b%ef%bc%81/>