

31 Jan. – 1 Feb 2022

INTRODUCTION- aim of the conference

International Conference on Science and Technology for Sustainability

Theme: Achieving Net Zero Emissions: The Roles of Academia

31 January & 1 February 2022 (Online)

National Institute for Environmental Studies (NIES)

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Extreme weather events are increasing around the world...



Evia island on fire, Greece source: Getty Image



Mud slide in Turkey
source : Fresh News



Flood in Germany
source : Daily Sun



Wildfire in California : source:
Newsweek

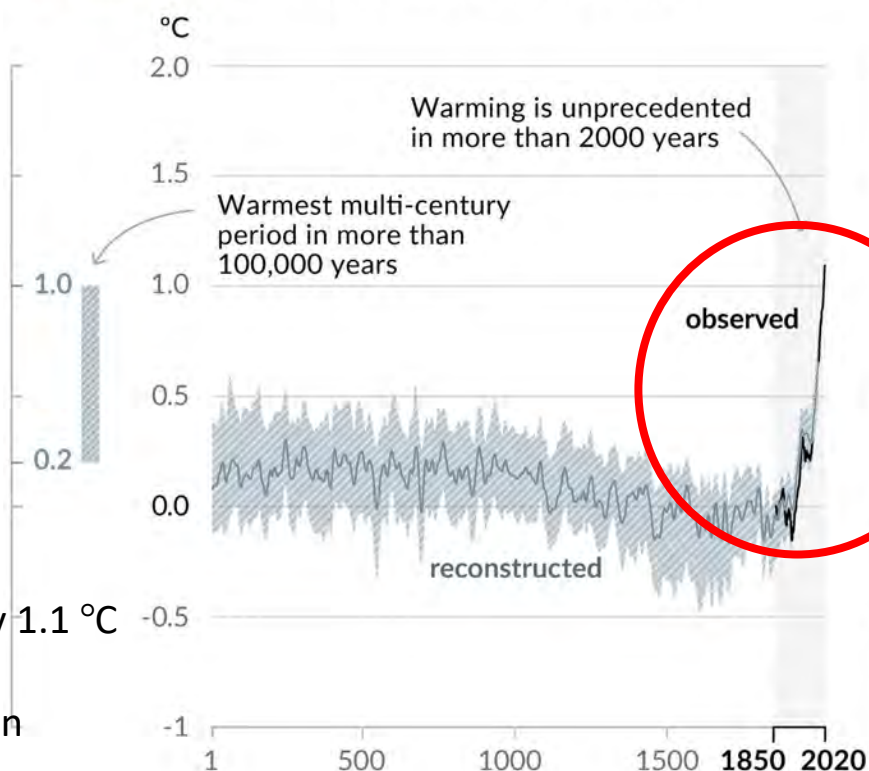


Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

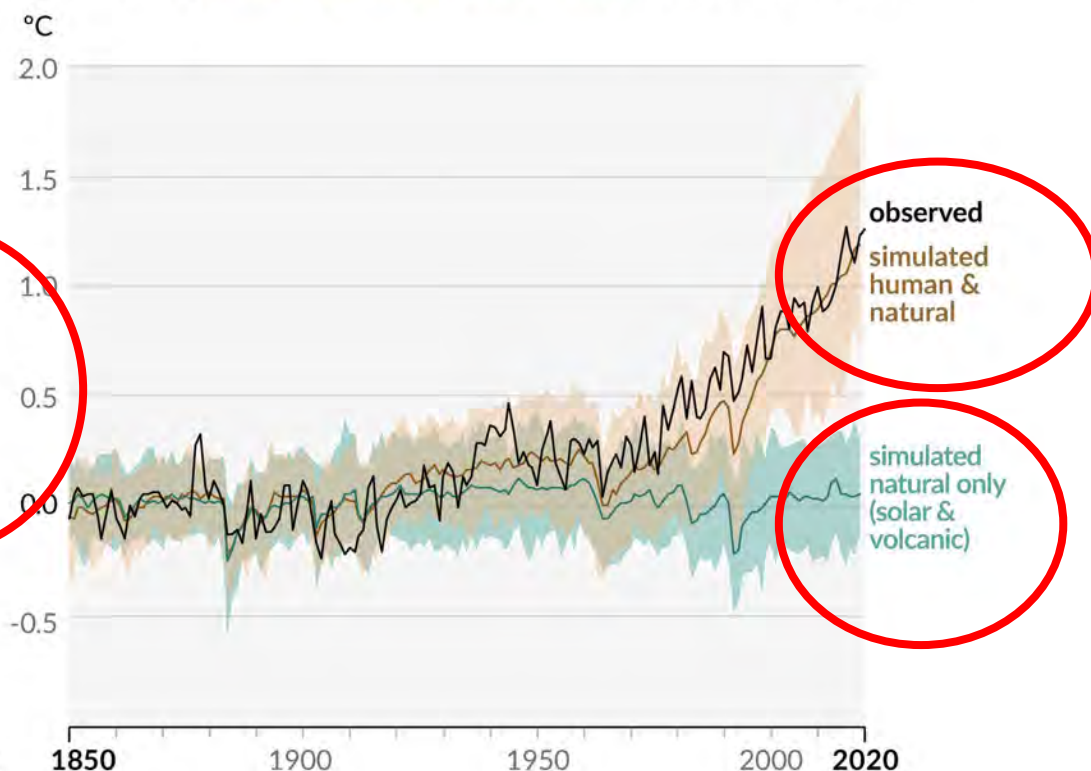
Figure SPM.1

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as **reconstructed** (1-2000) and **observed** (1850-2020)



b) Change in global surface temperature (annual average) as **observed** and simulated using **human & natural** and **only natural** factors (both 1850-2020)



We are already 1.1 °C above pre-industrialization

Background

April 2021: Climate Leaders' Summit
held online in April 2021



November 2021: COP26 / UNFCCC

@ Glasgow, UK Glasgow Climate Pact “

Recognizes that the impacts of climate change will be much lower at the temperature increase of 1.5°C compared with 2°C, and *resolves* to pursue efforts to limit the temperature increase to 1.5°C;



Also recognizes that limiting global warming to 1.5°C requires rapid, deep and sustained reductions in global greenhouse gas emissions, including reducing global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century, as well as deep reductions in other greenhouse gases

The target is set!

Aim and scope of this conference

Toward "almost half" target by 2030, the widespread use of renewable energy, the closure of coal-fired power plants, and the conversion of fuel in the transportation sector are being started.

Toward "nearly zero" target by 2050, practical application of technology and systems that are currently in the development stage is required.

Aim of this conference

Day 1 aims at focusing on "where we are" and "how to get there", especially in Asia.

Day 2 aims at focusing on nexus between climate change mitigation actions and other environmental/ economic/ social values.



- ✓ What is the role of the academia?
- ✓ How can academia contribute in reaching net zero goals?
- ✓ How can academia disseminate scientific messages to the public?
- ✓ How can we be more inclusive and leave no one behind?

Thank you for your kind attention

