

Az IPCC értékelő jelentése a 1,5 °C-os globális melegedésről

Még elérhető?

Huszár András
főosztályvezető
Innovációs és Technológiai
Minisztérium

Ürge-Vorsatz Diana
Vice Chair
IPCC WGIII

Nemzetközi politikai kontextus

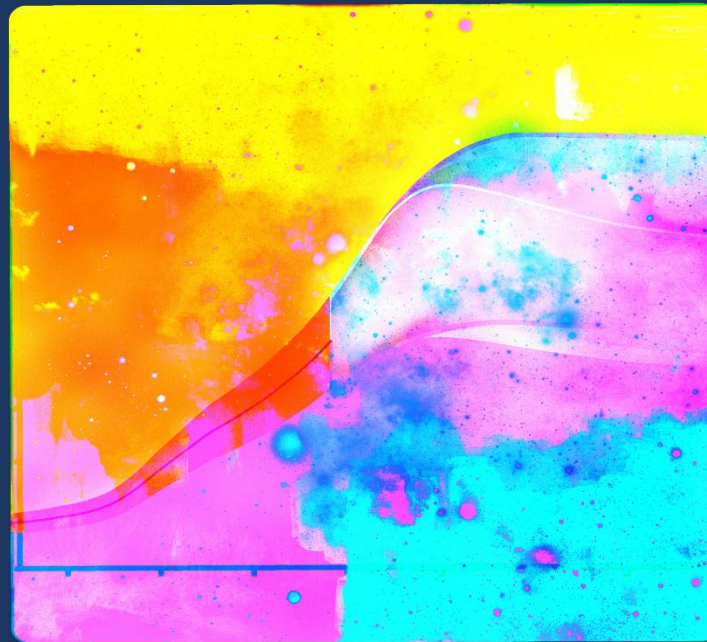
- Párizsi Megállapodás Munkaprogram
- Talanoa Párbeszéd (NDC-k)
- Pre-2020
- Klímafinanszírozás
- IPCC jelentés

A 1.5C hőmérsékleti cél története

- Az AR5-ben vizsgált legalacsonyabb melegedési pálya a 2C forgatókönyv volt, alacsonyabb hőmérsékleti célt nem vizsgáltak
- A UNFCCC kérte fel az IPCC-t 2015-ben, hogy készítse el a 1.5C különjelentést a Párizsi Megállapodás kontextusában
- Kezdetben idegenkedés volt a felkérés elfogadásával kapcsolatban a kellő szakirodalom hiánya, valamint a cél potenciális elérhetetlensége miatt
- Ugyanakkor a 2016 áprilisi plenárison, - ahol a 6. ciklusban elkészítendő jelentésekről született döntés – már nem kérdőjelezte meg senki az elkészítését

Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

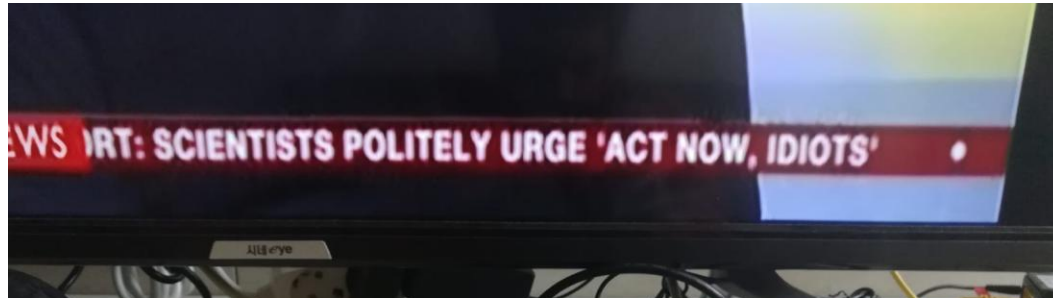


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Óriási médiaérdeklődés

- A jelentés közzétételekor számtalan nemzetközi médiacsatornán legalább 24 óráig vezető hír volt
- Több, mint 11000 online és nyomtatott megjelenés október 8-9-én
- Részletes elemzések születtek arról, hogy mit jelentenek a dokumentum megállapításai egyes régióknak, a különböző érintettnek, szektoroknak stb.



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NATIONAL



SINKING FEELING
Land in the Mekong Delta is sinking at a rate of around 1.1 cm each year, causing serious flooding concerns for local administrators.
PAGE 4

INSIGHT
VIOLENCE SPIKE
A recent spike in violence in the volatile regions of the Democratic Republic of Congo is being blamed on a shadowy armed group of rebels.
PAGE 12

PM Phúc calls for SOE investment from Japan

Prime Minister Nguyễn Xuân Phúc has encouraged Japanese businesses to become strategic partners with Việt Nam's State-owned enterprises, especially in industrial infrastructure construction
Story on Page 13

Eurasian speakers wrap up third meeting in Turkey

The third Meeting of Speakers of Eurasian Countries' Parliaments in Turkey, closed on Tuesday with National Assembly Chairwoman Nguyễn Thị Kim Ngân leading a Vietnamese delegation to the event
Story on Page 2

UN climate change report revealed in Việt Nam

A landmark UN report on the impacts of global warming was shared in Việt Nam yesterday
Story on Page 6

Inflation fears as fuel prices scale up

Environmental protection taxes on petroleum from next year would

A jelentés számokban

91 szerző **40** országból

133 egyéb hozzájáruló kutató

6000 tanulmány

1 113 bíráló

42 001 észrevétel

További háttérinformáció

- Valamennyi IPCC szerző és Büro tag teljesen önkéntes alapon végzi ez irányú munkáját (kivéve akiket a saját kormányuk támogat anyagilag)
- Az elkészítés a legnagyobb kihívás volt az IPCC történetében mind a munkamennyiséget, mind a rendelkezésre álló időt tekintve
- Csak 4. fejezet 1300 észrevételt kapott az első körben és több mint 4300-at a második körben

További háttérinformáció 2

- Az elfogadás 1.5 nappal tovább tartott, mint az eredetileg tervezett
- Az utolsó tárgyalási szakasz 31 óráig tartott folyamatosan
- Az IPCC döntéseit konszenzussal hozzák

Understanding Global Warming of 1.5°C

Hol vagyunk most?

- Az iparosodás óta az emberi tevékenységek kb. 1°C globális felmelegedést okoztak.
- Már most egyértelmű következmények tapasztalhatóak az emberek, a természeti környezet és az élőhelyek esetében
- Ha a mostani ütemben folytatódik, akkor 2030 és 2052 között érjük el a 1.5°C melegedést
- Ugyanakkor a múltbeli kibocsátások összessége nem eredményezne önmagában 1.5°C melegedést

Ashley Cooper / Aurora Photos



Understanding feasibility

Updated figures on our remaining carbon budget (CB)

- By 2017, humans depleted the CB by app **2200 GtCO₂**
- current emissions are at app **42 GtCO₂ per year**
- The choice of the measure of global temperature affects the estimated remaining carbon budget
- Using global mean **surface air temperature**, as in AR5, gives an estimate of the remaining CB of **580 GtCO₂ for a 50% probability, 420 GtCO₂ for a 66% probability**
- using **GMST** gives estimates of **770** and **570 GtCO₂**, for **50%** and **66%** probabilities
- *At current rates of emissions*, this gives us **app. 10 – 18 year window** to decarbonise our economies in order to stay within the carbon budget

Projected Climate Change, Potential Impacts and Associated Risks

Impacts of global warming 1.5°C

At 1.5°C compared to 2°C:

- Less extreme weather where people live, including extreme heat and rainfall
- By 2100, global mean sea level rise will be around 10 cm lower but may continue to rise for centuries
- 10 million fewer people exposed to risk of rising seas



Jason Florio / Aurora Photos

Impacts of global warming 1.5°C

At 1.5°C compared to 2°C:

- Lower impact on biodiversity and species
- Smaller reductions in yields of maize, rice, wheat
- Global population exposed to increased water shortages is up to 50% less



Jason Florio / Aurora Photos


Emission Pathways and System Transitions Consistent with 1.5°C Global Warming

Emission pathways - definition

- The modelled trajectories of global anthropogenic emissions over the 21st century are termed emission pathways.
- Emission pathways are classified by their temperature trajectory over the 21st century:
 - pathways giving **at least 50% probability** based on current knowledge of limiting global warming to **below 1.5°C** are classified as '**no overshoot**';
 - those limiting warming to **below 1.6°C** and **returning to 1.5°C by 2100** are classified as '**1.5°C limited-overshoot**';
 - while those **exceeding 1.6°C** but still **returning to 1.5°C by 2100** are classified as '**higher-overshoot**'.

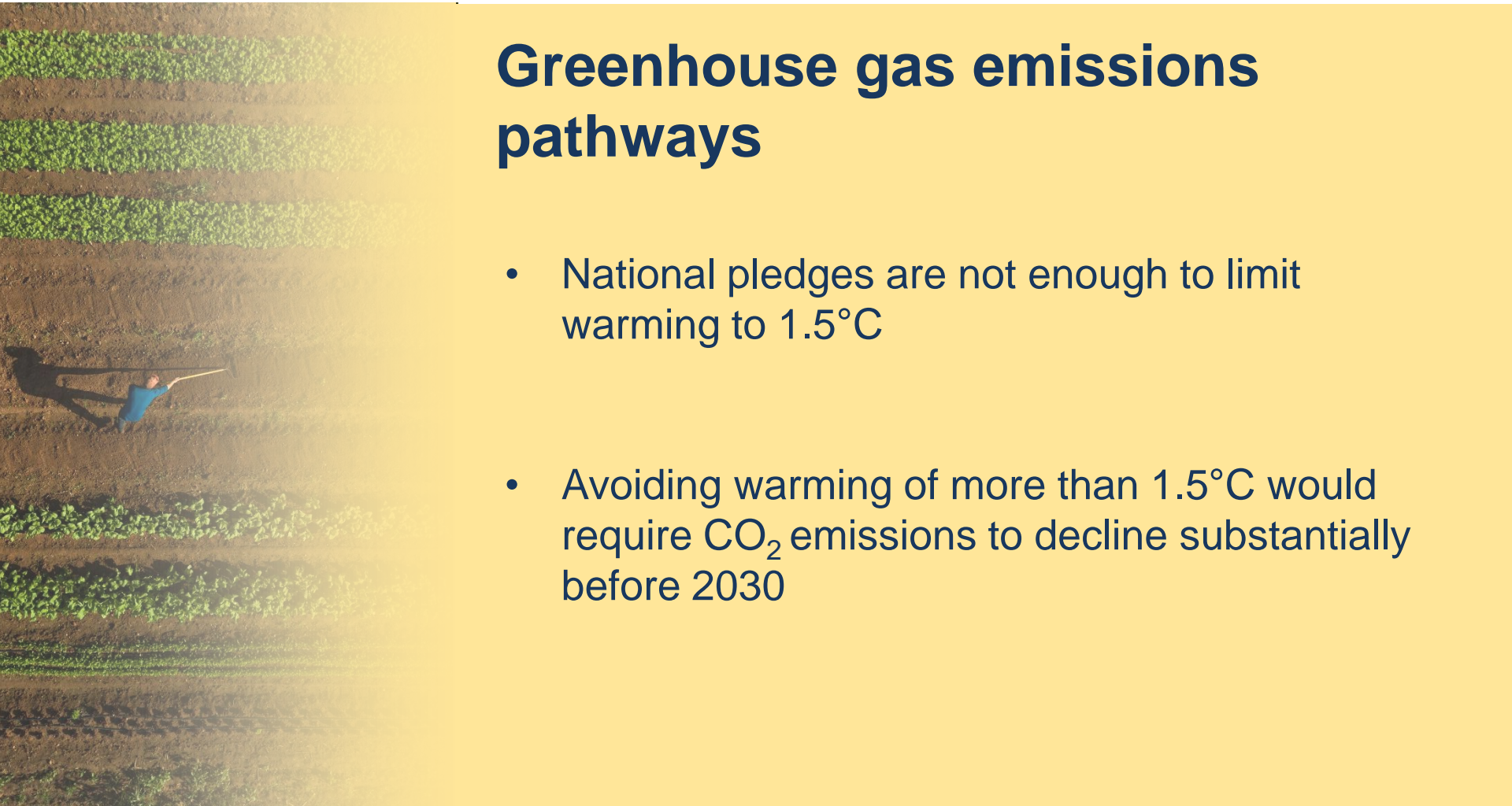
What can we learn from the pathways?

- Capping warming at 1.5C is feasible from a technological perspective
- There are still choices in the pathways how we can get there
- However, each pathway involves virtually all options (except BECCS or CCS), the difference is only in the emphasis on different options
- All pathways peak global emissions in the next few years, and radically reduce emissions afterwards
- The pathways have markedly different implications on sustainable development



Greenhouse gas emissions pathways

- To limit warming to 1.5°C, CO₂ emissions fall by about 45% by 2030 (from 2010 levels)
 - ↳ Compared to 20% for 2°C
- To limit warming to 1.5°C, CO₂ emissions would need to reach 'net zero' around 2050
 - ↳ Compared to around 2075 for 2°C
- Reducing non-CO₂ emissions would have direct and immediate health benefits



Greenhouse gas emissions pathways

- National pledges are not enough to limit warming to 1.5°C
- Avoiding warming of more than 1.5°C would require CO₂ emissions to decline substantially before 2030




Greenhouse gas emissions pathways

- Limiting warming to 1.5°C would require changes on an unprecedented scale

- Deep emissions cuts in all sectors
- A range of technologies
- Behavioural changes
- Increased investment in low carbon options

Peter Essick / Aurora Photos

An aerial photograph of a farm with several rows of green crops. A person in a blue shirt is visible in the middle of the field, working with a long-handled tool. The background is a bright yellow gradient.

Greenhouse gas emissions pathways

- Progress in renewables would need to be mirrored in other sectors
- We would need to start taking carbon dioxide out of the atmosphere
- Implications for food security, ecosystems and biodiversity



Necessary transitions

- Pathways with no or limited overshoot show system changes that are more rapid and pronounced over the next two decades than in 2°C pathways
- The rates of system changes **have occurred in the past within specific sectors, technologies and spatial contexts, but there is no documented historic precedent for their scale**
- The **energy system transition** that is required to limit global warming to 1.5°C is **underway in many sectors and regions** around the world
- The political, economic, social and technical feasibility of **solar and wind energy and electricity storage has improved dramatically over the past few years,**
- while that of **nuclear energy and CCS have not shown similar improvements.**

Gerhard Zwirger-Schoner / Aurora Photos

Summary: Is 1.5C warming still feasible?

- no single answer
 - *Defined in this report: the capacity of a system as a whole to achieve a specific outcome*
- Feasibility decomposed into:
 - geophysical, technological, economic, environmental-ecological, socio-cultural and institutional

Köszönöm a figyelmet!