## EnergyaClimate



The gap between where we are likely to be and where we need to be by 2030

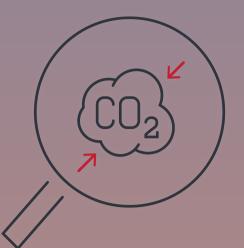


# **EMISSIONS** GAP REPORT 2020THE MAIN TAKEAWAYS FROM

THE UN'S ANNUAL REPORT

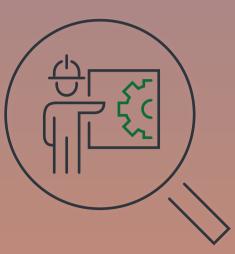
**GHG** EMISSIONS CONTINUED TO INCREASE IN 2019, REACHING A NEW 'RECORD'





DUE TO COVID-19, CO<sub>2</sub> EMISSIONS COULD DECREASE BY ABOUT 7% IN 2020 COMPARED WITH 2019. BUT ATMOSPHERIC CONCENTRATIONS OF GHGs CONTINUE TO RISE...

Covid-19 OFFERS ONLY A SHORT-TERM REPRIEVE IN  $CO_2$  EMISSIONS AND WILL NOT SLOW DOWN GLOBAL WARMING UNLESS COUNTRIES PURSUE **GREEN** ECONOMIC RECOVERIES





**N**ATIONS' CARBON-CUTTING PLEDGES (NDCs) ARE STILL WOEFULLY INADEQUATE. PREDICTED EMISSIONS IN 2030 LEAVE THE WORLD ON THE PATH TO A **3.2°C INCREASE THIS CENTURY** 

BUT THERE IS ENCOURAGING NEWS: A GROWING NUMBER OF COUNTRIES HAVE COMMITTED TO NET-ZERO EMISSIONS GOALS BY AROUND MID-CENTURY. INCLUDING CHINA AND THE US



## GLOBAL WARMING CAN STILL BE LIMITED TO EFFORTS FROM EVERY NATION ON THE PLANET



**NATIONS' CARBON-CUTTING PLANS** 

TO 2030 MUST GET FIVE TIMES

MORE AMBITIOUS TO HAVE A 66%

CHANCE OF LIMITING GLOBAL

WARMING TO 1.5°C

**1.5°C** — BUT IT REQUIRES UNPRECEDENTED

**N**ATIONS' CARBON-CUTTING PLANS TO 2030 MUST GET THREE TIMES MORE AMBITIOUS TO HAVE A 66% CHANCE OF LIMITING GLOBAL WARMING TO 2°C

2°C

## How BIG IS THE EMISSIONS GAP EXACTLY?

TO LIMIT TEMPERATURE RISE, ANNUAL GLOBAL EMISSIONS IN 2030 NEED TO BE THIS MUCH LOWER THAN COUNTRIES' COMBINED (UNCONDITIONAL) MITIGATION PLEDGES:



2°C OR

1.5°C



IN 2019, TOTAL GHG EMISSIONS — INCLUDING FROM LAND-USE CHANGE — REACHED A RECORD HIGH OF **59.1 GtCO<sub>2</sub>e**.

### Hold on, how much is a ' $GtCO_2e$ .'?

'GtCO<sub>2</sub>e.' stands for 'gigatonnes of carbon dioxide equivalent'. It's a SIMPLIFIED WAY OF PUTTING EMISSIONS OF VARIOUS GHGS ON A COMMON FOOTING. **O**NE GIGATONNE IS ONE THOUSAND MILLION TONNES, WHICH IS ABOUT

> TO THE GHG EMISSIONS GENERATED BY TRANSPORT IN EUROPE OVER THE COURSE OF A SINGLE YEAR.

### **D**OES THE PANDEMIC PROVIDE AN OPPORTUNITY FOR THE WORLD TO SLASH GHG EMISSIONS?



A GREEN PANDEMIC RECOVERY COULD CUT UP TO 25% OFF THE EMISSIONS WE WOULD EXPECT TO SEE IN 2030. THAT'S WITHIN THE RANGE OF EMISSION CUTS THAT GIVES US A 66%CHANCE OF HOLDING TEMPERATURES TO BELOW 2°C



BUT ONLY AROUND ONE-QUARTER OF G20 MEMBERS HAVE DEDICATED SHARES OF THEIR SPENDING — UP TO 3% of GDP — explicitly to low-carbon measures

THERE STILL REMAINS A WINDOW OF OPPORTUNITY FOR NATIONS TO IMPLEMENT LOW-CARBON POLICIES. GOVERNMENTS CAN TAKE THIS OPPORTUNITY IN THEIR NEXT STAGE OF STIMULUS PACKAGES.

#### FIVE POLICIES WITH THE POTENTIAL TO BOOST ECONOMIES, STIMULATE EMPLOYMENT AND DRIVE A LOW-CARBON TRANSITION:





**CLEAN PHYSICAL** INFRASTRUCTURE

**INVESTMENT IN EDUCATION AND** TRAINING



THE GOOD NEWS IS THAT THE FUTURE CAN STILL BE SHAPED THROUGH DECISIONS YET TO BE MADE ON THE COMPOSITION AND IMPLEMENTATION OF ANNOUNCED RECOVERY PACKAGES AND FUTURE RECOVERY ACTIONS...

#### SO HOW CAN WE BRIDGE THE G A P?

As well as enhanced action by G20 members, every nation should set a net zero

BY **2050** TARGET AND IMPLEMENT LONG-TERM MITIGATION STRATEGIES. AND:



#### **SUPPORT LOW-EMISSIONS TECHNOLOGIES AND INFRASTRUCTURE**

**O**PTIONS INCLUDE LOW-CARBON AND RENEWABLE ENERGY, LOW-CARBON TRANSPORT, ZERO-ENERGY BUILDINGS, CLEAN HYDROGEN, ENERGY STORAGE, LOW-CARBON MATERIALS, AND CARBON CAPTURE AND STORAGE (CCS)



#### BEGIN TO PHASE OUT FOSSIL FUEL SUBSIDIES

IF ALL FOSSIL FUEL SUBSIDIES WERE PHASED OUT GLOBALLY, IT WOULD LEAD TO A REDUCTION OF GLOBAL  $CO_2$  EMISSIONS OF UP TO 10% by 2030



#### PHASE OUT COAL-FIRED POWER PLANTS

THE UK PROVIDES A SUCCESSFUL CASE STUDY: IN THE FIRST HALF OF 2020, THE COUNTRY WENT 67 DAYS WITHOUT COAL-FIRED POWER, THE LONGEST PERIOD SINCE THE INDUSTRIAL REVOLUTION BEGAN. THE UK WILL END COAL USE IN 2024

#### PROMOTE AND SCALE UP NATURE-BASED SOLUTIONS

INCLUDING LARGE-SCALE LANDSCAPE RESTORATION AND REFORESTATION. NATURE-BASED SOLUTIONS, SUCH AS PROTECTING MANGROVES OR PLANTING TREES, MOP UP CARBON, BOOST BIODIVERSITY AND INCREASE RESILIENCE TO CLIMATE CHANGE



**T**ACKLE AVIATION AND SHIPPING SECTOR EMISSIONS, WHICH ACCOUNT FOR 5% OF GLOBAL EMISSIONS TODAY — BUT ARE GROWING RAPIDLY

IF CURRENT TRENDS CONTINUE, COMBINED INTERNATIONAL EMISSIONS FROM SHIPPING AND AVIATION WILL LIKELY CONSUME BETWEEN 60 and 220% of ALLOWABLE CO<sub>2</sub> EMISSIONS BY 2050 UNDER THE 1.5°C SCENARIO



ENABLE AND ENCOURAGE THE PRIVATE SECTOR AND CONSUMERS TO AVOID HIGH-CARBON CONSUMPTION AND MOVE TO LOW-CARBON ALTERNATIVES

EQUITY IS CENTRAL TO ADDRESSING LIFESTYLES — THE COMBINED EMISSIONS OF THE RICHEST 1% of the world account for more than twice the poorest 50%



NET ZERO PLEDGES SHOULD TURN INTO ROBUST NET ZERO PLANS

WITH TWO-THIRDS OF THE WORLD NOW COVERED BY NET ZERO PLEDGES, IT'S TIME TO CHANGE THE FOCUS FROM PLEDGING TO DELIVERING.

Definition: The emissions gap for 2030 is defined as the difference between global total GHG emissions from least-cost scenarios that keep global warming to 2°C, 1.8°C or 1.5°C with varying levels of likelihood, and the estimated global total GHG emissions resulting from a full implementation of countries' carbon-cutting pledges (NDCs)

**Credit:** United Nations Environment Programme (2020). Emissions Gap Report 2020. Nairobi; Also Hepburn et al, Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?, Oxford Review of Economic Policy, 2020

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