



ECOLOGICAL TRANSFORMATION : « Are we ready? »

BAROMETER OF THE ECOLOGICAL TRANSFORMATION



ECOLOGICAL EMERGENCY

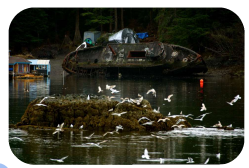
Are we ready?

1951

First report on the state of the environment by the International Union for Conservation of Nature.

1972

Stockholm Conference, first international conference of the United Nations on the environment and launch of the Earth Summits.



1985

Discovery of a hole in the ozone layer by scientists. To date, the only climate issue that has not deteriorated.

1978

The Amoco Cadiz, a Liberian supertanker sank and released 227,000 tons of oil off the coast of Brittany. The worst oil spill of the 20th century opened the way and became the first legal case to succeed in terms of oil pollution.

1997

Kyoto Protocol on climate change, 38 countries commit to reducing their greenhouse gas emissions by an average of 5.2% within 15 years, compared to 1990 levels.

1990

First assessment report of the IPCC (Intergovernmental Panel on Climate Change)

1987

Brundtland Report "Our Common Future" by the World Commission on Environment and Development (UN) establishes the definition of sustainable development as "a pattern of development that meets the needs of the present without compromising the ability of future generations to meet their needs."

2007

The former vice-president of the United States, Al Gore, was awarded the Nobel Peace Prize jointly with the IPCC, after having highlighted the dramatic consequences of global warming, notably in the documentary "An Inconvenient Truth".



1997

Discovery of the North Pacific waste vortex, also called 7th continent.

1992

First Earth Summit in Rio and signing of Agenda 21 by more than 170 countries, a program of actions to be transposed locally by governments and institutions, in all areas of human activity.

2021

Glasgow Conference on Climate Change (COP26), which resulted in the "Glasgow Climate Pact", thus completing the Paris agreement with notable advances concerning the exit from oil and gas and the 1.5°C ambition.



2015

The Paris Agreement was adopted at the Paris Climate Conference (COP 21). The signatory states commit to keeping the global temperature increase below 2°C, or even below 1.5°C by 2100.



2019/2020

"Black summer" in Australia: mega-fires ravage nearly 19M hectares of vegetation and thousands of homes..



2021

Warmest summer on record in Europe according to the European climate change monitoring service Copernicus.

2022

Record floods in Pakistan following intense drought, 10% of the country flooded since the beginning of the monsoon

WHY THE BAROMETER OF THE ECOLOGICAL TRANSFORMATION?

The debate around ecology has entered a new phase which is struggling to be structured on common grounds. If there is a consensus on the risks for the planet and all of humanity, the solutions to reduce our impact are still little debated and divide.

IPCC reports, climate strategies, Green New Deal, COP: the proposals to fight against climate change, biodiversity loss and pollution are numerous. But their adoption and large-scale deployment raises a major question: **are the changes needed to lead the "battle of the century" socially, economically and culturally acceptable to human communities?**

This question is at the heart of the Barometer of the ecological transformation carried out with a sample covering **more than half of the world's population** on the 5 continents.

This barometer aims to **make the public debate concrete** by working on **solutions**, and to understand **the obstacles and levers** of their **acceptability** to accelerate the transition.

3 thematic axes

Climate change

Pollution and resource scarcity

Threats to biodiversity and food security

A novel angle: the acceptability of ecological solutions

- Are there **psychological, economic or cultural obstacles** to the transition?
- Are we ready to **bear or accept the cost of the ecological transformation**?
- How far are we ready to go? How **radical** should the **change** be?
- What levers could **improve the acceptability of ecological solutions**?
- How does the world public opinion project itself in a "**transformed world**"?

Methodology



Selection of target countries

A survey conducted in **25 countries** in **5 continents** with more than **25,000 individuals** (about **1,000 per country**).

Countries were **chosen** for **their demographic weight, their weight in terms of GHG emissions and to ensure a diversity of political and cultural ecological histories.**

Overall, these countries represent nearly 60% of the world's population and **68% of global GHG emissions.**

See details on the next page.



Collection method and field dates

A survey conducted **online** from **August 24 to September 26, 2022.**



Sample representativeness

For each of the **25 countries**, a **representative** sample of **residents aged 18 and over** was selected. The representativeness was ensured according to the **quota method** applied to the following variables: **gender, age, socio-professional category or income** (depending on the country) and **region of residence.**



Results "World Opinion"

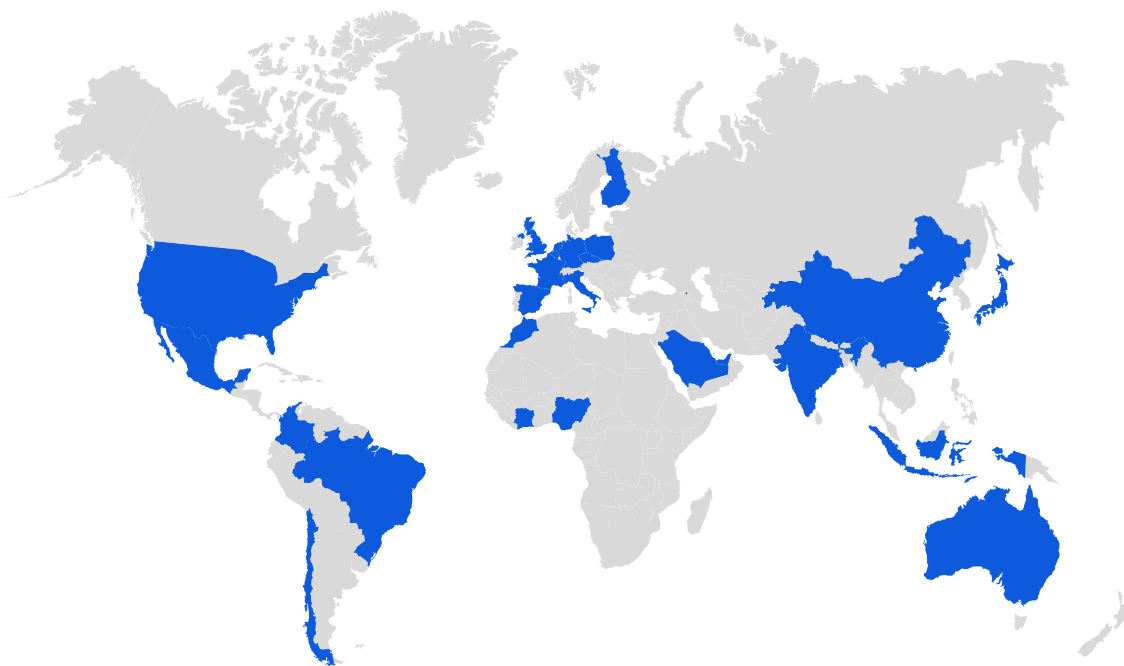
To constitute the **results of the "world opinion"**, an **equivalence between countries was privileged** (each country counts for 1, no weighting according to the number of inhabitants). This choice was made to ensure that the diversity of countries is represented and thus avoid "world opinion" being only the average of the results of the most populous countries (China and India in particular).



Frequency of the barometer

Every 18 months (long period of evolution of representations, opinions and behaviour).

25 target countries



			Number of people interviewed	Pop. of the country on global pop.	Share of the country in global GHG emissions
TOTAL			25 111	59,4%	67,7%
AFRICA					
1		CIV Ivory Coast	1 005	0,3%	0,1%
2		MAR Morocco	1 030	0,5%	0,2%
3		NGA Nigeria	1 000	2,6%	0,7%
AMERICA					
4		BRA Brazil	1 006	2,7%	2,3%
5		CHL Chile	1 006	0,2%	0,2%
6		COL Colombia	1 005	0,6%	0,4%
7		USA United States	1 002	4,2%	13,0%
8		MEX Mexico	1 003	1,6%	1,4%
EASTERN ASIA					
9		CHN China	1 000	18,1%	27,4%
10		IND India	1 002	17,5%	7,3%
11		IDN Indonesia	1 000	3,5%	2,2%
12		JPN Japan	1 004	1,6%	2,5%
EUROPE					
13		DEU Germany	1 006	1,1%	1,6%
14		BEL Belgium	1 008	0,1%	0,2%
15		ESP Spain	1 000	0,6%	0,7%
16		FRA France	1 001	0,8%	0,9%
17		FIN Finland	1 003	0,1%	0,1%
18		ITA Italy	1 002	0,8%	0,8%
19		NDL Netherlands	1 002	0,2%	0,4%
20		POL Poland	1 000	0,5%	0,8%
21		CZE Czech Republic	1 005	0,1%	0,3%
22		GBR United Kingdom	1 003	0,9%	1,0%
MIDDLE EAST					
23		SAU Saudi Arabia	1 002	0,4%	1,6%
24		ARE United Arab Emirates	1 011	0,1%	0,5%
OCEANIA					
25		AUS Australia	1 005	0,3%	1,3%

Humanity facing the « wall »

Climate and ecological
vulnerability

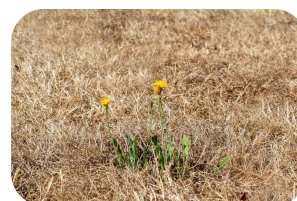
History is accelerating



11 000 disasters
attributed to climate change
between 1970 and 2019



3,3 to 3,6 billion
people are considered **"highly
vulnerable"** to climate change



The 7 last years
are the **warmest ever**
recorded on a global scale



9 million
premature deaths related
to **pollution** in **2019**

**216 million climate
refugees could flee their
homes** due to famine, lack of
water, or rising seas **by 2050**



1 billion
inhabitants of coastal areas
will be threatened by erosion
and rising sea levels by 2050



As much CO2 was **emitted by**
the megafires of summer 2021 **as**
Covid-related health
restrictions had prevented



And humanity is now united by the same feeling of fragility



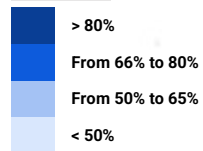
Total
25 countries

71% of world's inhabitants feel exposed to a risk related to climate disruption and pollution



61%
18-24 yo

Feeling of climate and ecological vulnerability



61%
USA

82%
MEX

79%
COL

84%
BRA

81%
CHL

61%
MAR

69%
CIV

62%
NGA

62%
GBR

72%
FRA

82%
ESP

75%
BEL

69%
NLD

71%
DEU

87%
ITA

45%
FIN

78%
POL

65%
CZE

48%
SAU

65%
ARE

80%
IND

83%
CHN

66%
JPN

83%
IDN

65%
AUS

Question: When you think about the risks related to climate disruption and pollution (water, air, soil), do you... personally feel exposed and vulnerable to them? Feel that your country is exposed and vulnerable to them?

My body, my home, my country: all vulnerable to environmental and climate risks



Total
25 countries

71% of world's inhabitants feel exposed to a risk related to climate disruption and pollution

The degradation of the ecosystem, the biodiversity in my country

(disappearance of animals, flora, etc.)

74%



Having increasingly harsh living conditions

(extreme temperatures, limiting water consumption in case of drought, etc.)

74%



Migratory movements

(caused by pollution and the consequences of climate disruption: drought, famine, etc.)

70%



Falling ill owing to pollution

(water, air, soil)

68%



Property damage caused by natural disasters


(floods, droughts and severe weather events)

68%



Question: When you think about the risks related to climate disruption and pollution (water, air, soil), do you... personally feel exposed and vulnerable to them? Feel that your country is exposed and vulnerable to them?

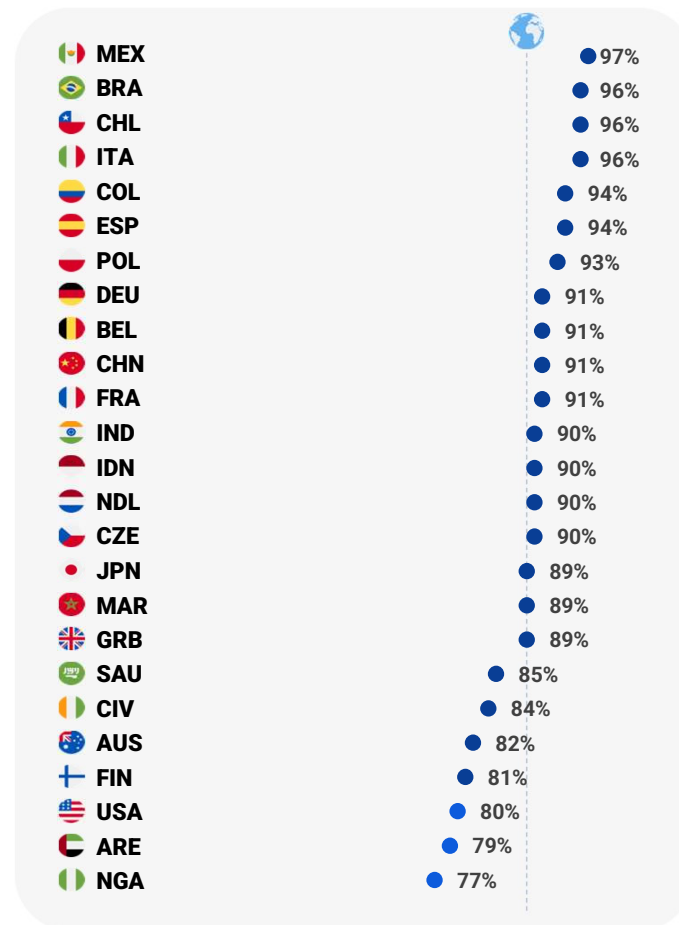
The certainty that climate disruption is underway

89% 

of world's inhabitants share the certainty that a **CLIMATE DISRUPTION** is **CURRENTLY HAPPENING**

 **83%**
18-24 yo

Question: Would you personally say that climate disruption is currently happening on our planet?



And that human activity is responsible

75% think that **CLIMATE DISRUPTION** is of **anthropogenic origin**

69%
18-24 yo

7% a **natural phenomenon**

9%
18-24 yo

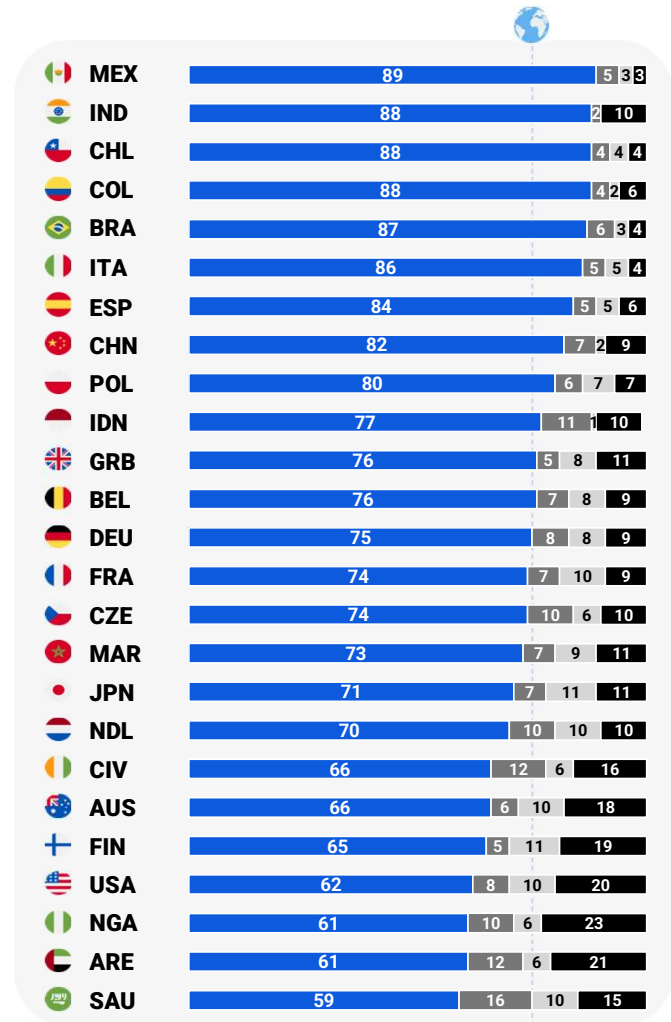
7% « **there is no way of knowing** »

5%
18-24 yo

11% « **nothing unusual is happening** »

17%
18-24 yo

Question: Do you think that human activity is responsible for climate disruption or not?




Eco-anxiety disrupts present and future

30% are **worried and anxious about the future** to the point of not being at peace, or even giving up long-term projects such as having children

 **34%**
18-24yo

59% are **concerned about the situation, without stopping them from being at peace** or making long-term plans

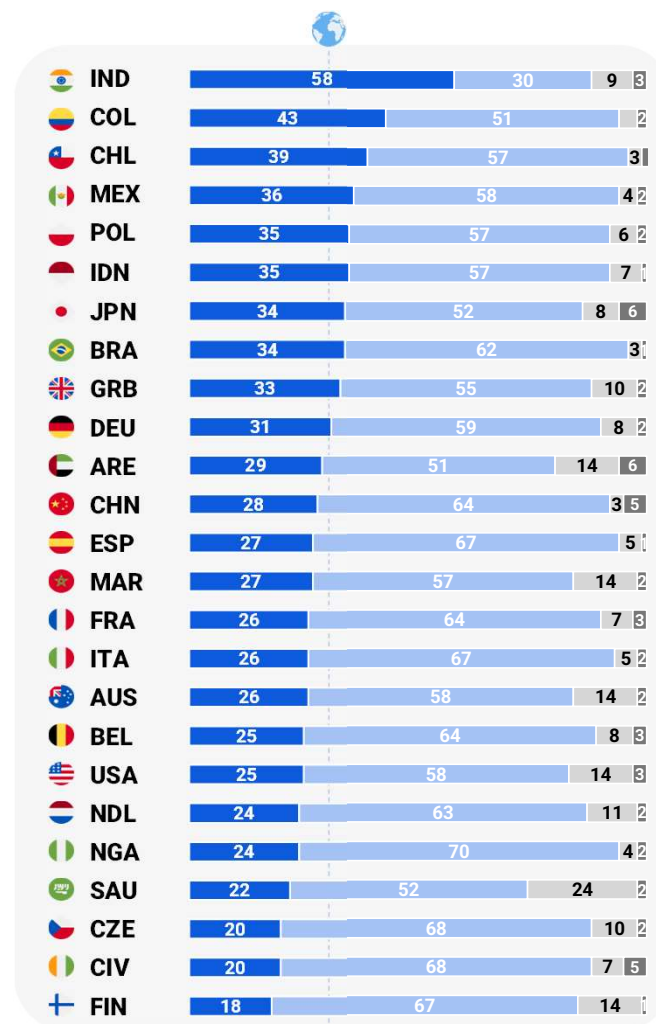
 **52%**
18-24yo

9% **« there is really nothing to worry about »**

 **12%**
18-24yo

2% don't know

Question: When you think about climate disruption and the environmental situation (pollution, quality of biodiversity), which phrase best describes how you feel?



**The end of a world,
but not the end of the world**

Neither resignation nor impotence

60% think that **the future is still in our hands**
 We can still limit climate disruption and pollution

 **63%**
18-24 yo

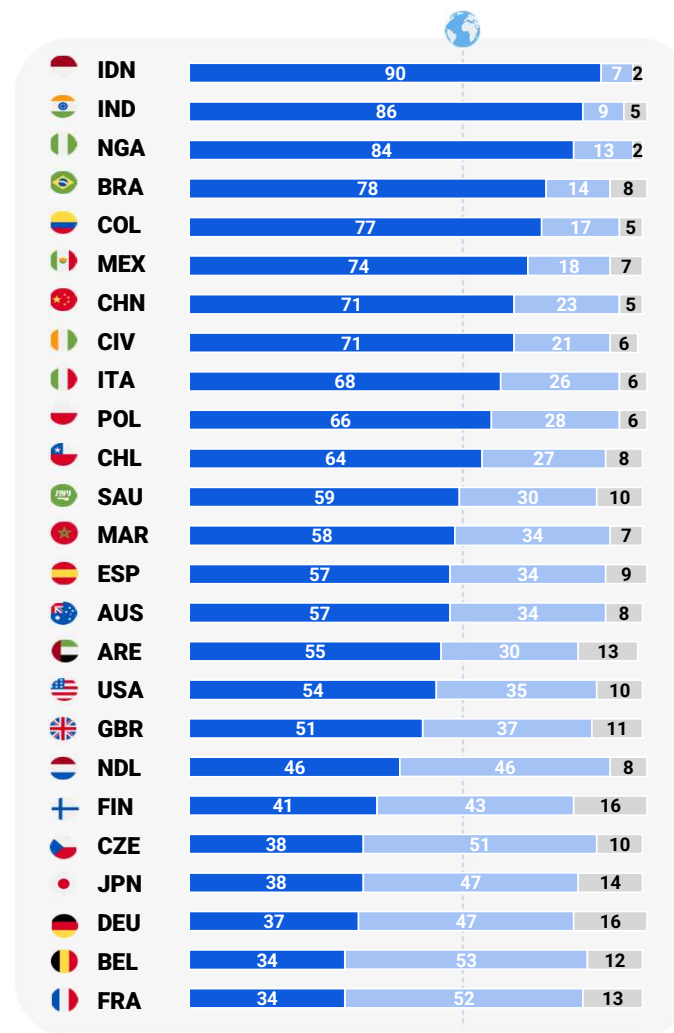
30% have a **doubt**

 **28%**
18-24 yo

8% think it is **too late**

 **8%**
18-24 yo

Question: And do you think we still have the future in our hands, that we can still limit climate disruption and pollution, or is it too late?



The belief that doing nothing will cost more than doing something

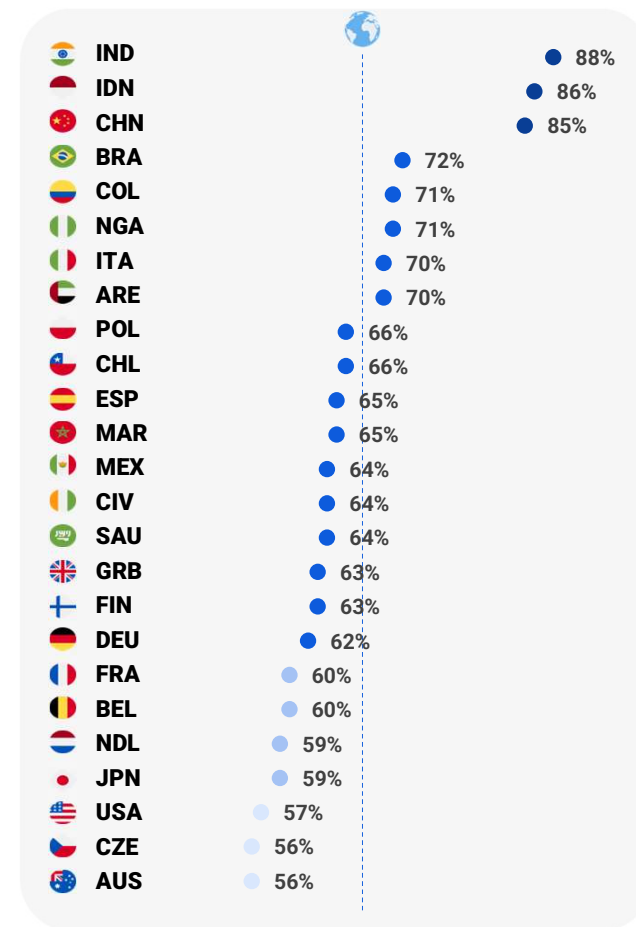
67%

are certain that **the costs** caused by climate **disruption and pollution** are going to be **more important than the investments** needed for the **ecological transformation**

 71%
18-24 yo



Question: Experts say that the costs caused by the damage linked to climate disruption and pollution are going to be greater than the investments needed for the ecological transition of our societies. Do you personally feel that this fact is true or false?



Act collectively



Total
25 countries

3 useful actors to take action for the success of the ecological transformation (cited on average)



Citizens

66%



60%
18-24 yo



States

60%



50%
18-24 yo



Local authorities

58%



49%
18-24 yo



Businesses

55%



43%
18-24 yo



Charities, NGOs

39%



37%
18-24 yo



EU

(asked only to EU countries)

56%



50%
18-24 yo

Question: In your opinion, who needs to take action for the success of the ecological transformation?

To reduce AND invent

55%

think we need to

CHANGE our ways of life, live for frugally

AND

PUT IN PLACE technological solutions

to reduce climate disruption

 46%
18-24 yo

23%

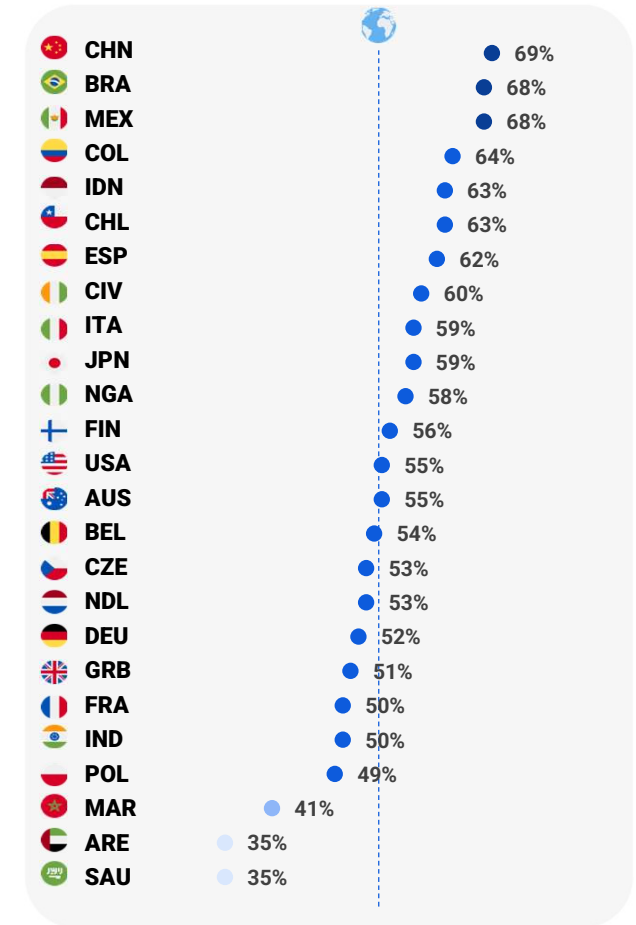
think we need **first to PUT IN PLACE** technological solutions

 27%
18-24 yo

21%

think we need **first to CHANGE** our ways of life, live more frugally

 26%
18-24 yo




Question: Generally speaking, when you think about the changes to be implemented to limit climate disruption and pollution, do you think that first and foremost we need to...?

Draw me the transformed world ...

60%

find it **difficult to imagine** what **daily life could be like** if we achieved the global ecological transformation

 **57%**
18-24 yo

incl. **36%**
have a vague idea,
but it is still unclear

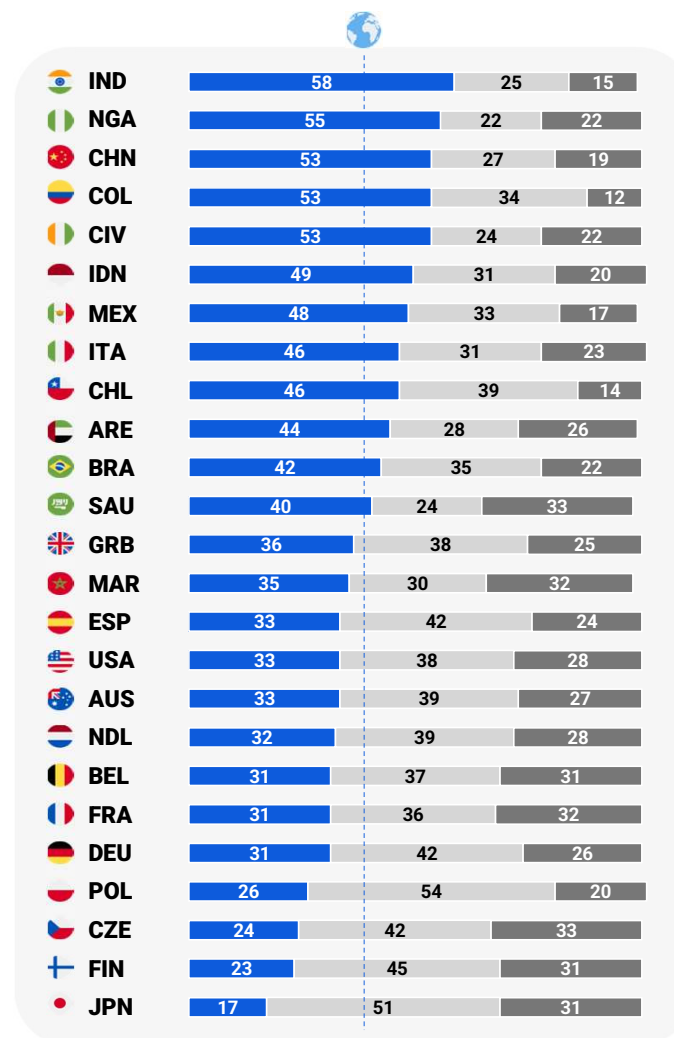
incl. **24%**
can't really see

39%

find it **quite easy** to imagine what the **world** and our **daily** lives might look like after the **ecological transformation**

 **41%**
18-24 yo

Question: When you hear that we need to change a number of things in society and in our lifestyles to limit climate disruption and reduce pollution, do you find it easy or difficult to imagine what daily life could be like if we achieved the ecological transformation?



And tell me about the solutions

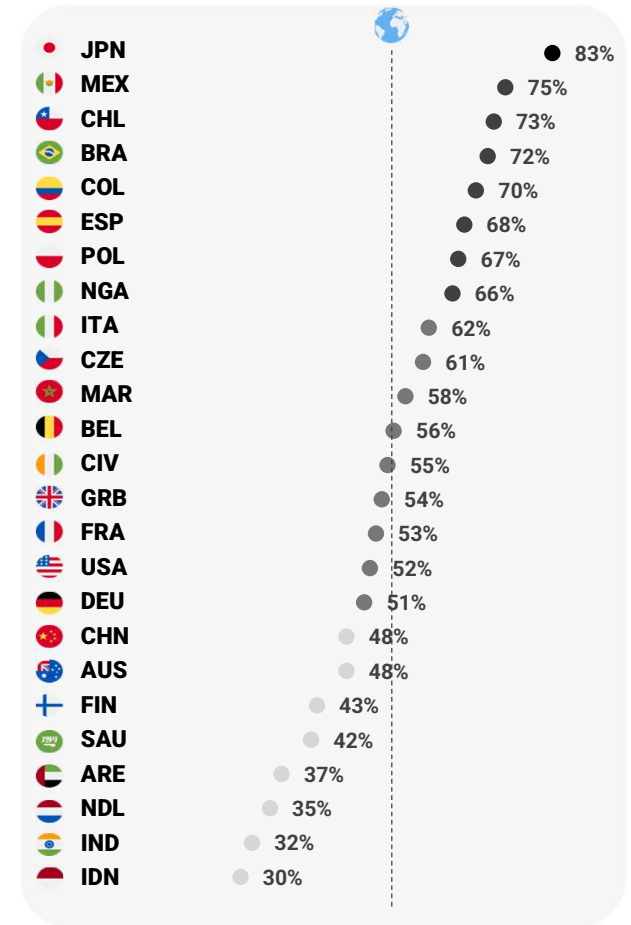
56%



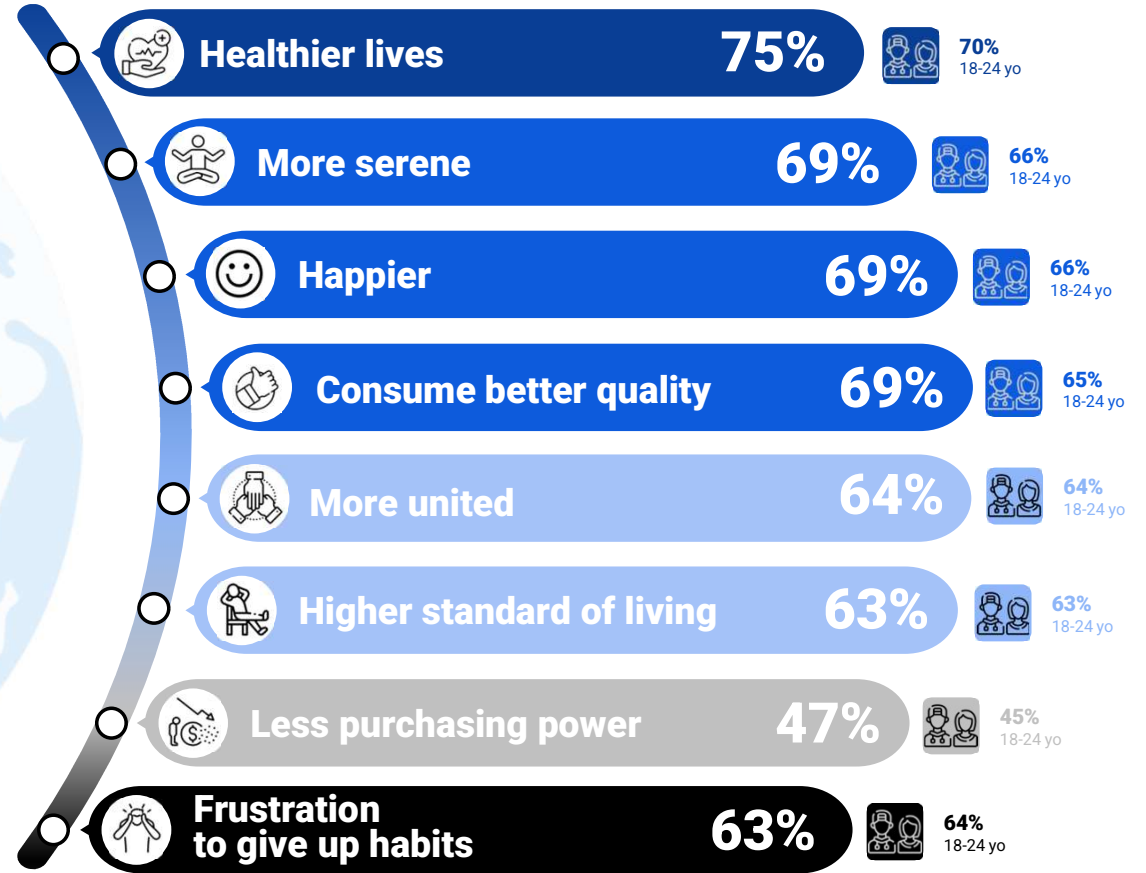
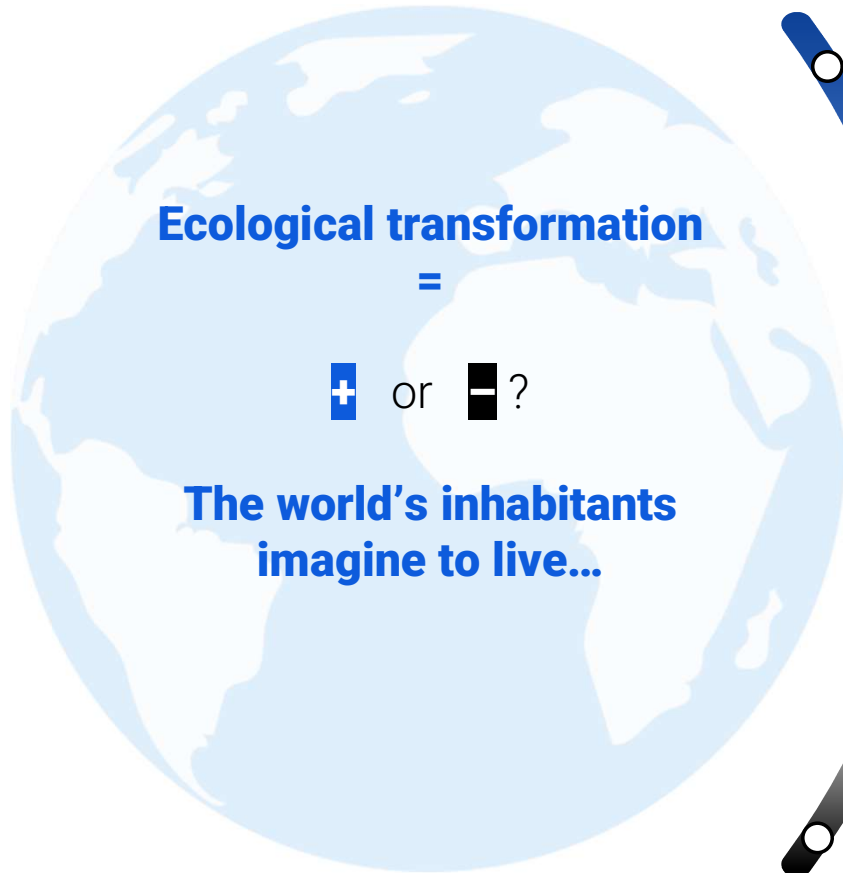
believe we do **NOT TALK**
enough about the **SOLUTIONS**
TO PUT IN PLACE to mitigate pollution
 and climate disruption

 56%
 18-24 yo

Question: In your country, would you say that there is enough or not enough talk about the solutions to be put in place (lifestyle changes, technological innovations, regulations, etc.) to mitigate pollution and climate disruption and adapt to the consequences thereof?



The choice of hope as a banner: the transformed world is imagined to be "better"



Question: If you imagine the world we would live in if we achieve the ecological transformation, in your opinion...?

Ecological transformation?

Ready!



**6 world's
inhabitants out of 10**
declare they are
ready to accept
90% of changes that
ecological solutions
would involve

Question: Would you personally be willing to...?

The path to acceptability

Guarantee that the solution does not present a health risk,

or that it contributes to protecting or improving health and quality of life



Share a real plan for the future of society that appeals and motivates,

able to create a collective movement



Certainty that the solution is really useful

(demonstration of the contribution to the fight - reduction of emissions, depollution, food sovereignty, energy ...)



Bearable economic and cultural costs:

progressive changes, equitable distribution of the additional financial cost (social justice) and majority adoption of the practice



Question: What might make you more willing to accept changes to our behaviour and our ways of living?

Climate disruption: an absolute emergency, acceptable solutions on condition of sanitary guarantee and demonstrated usefulness

RISK

79% believe that the risk of **CLIMATE DISRUPTION** is **serious and immediate**

SOLUTIONS

Producing energy from the **incineration of non-recyclable waste and biomass** (agricultural waste, animal carcasses, etc.)

Equipping buildings with "**smart**" tools to optimise **energy consumption** (computer systems that measure energy consumption and temperature and connect them to heating appliances)

Capturing CO2 directly when it is emitted by industries (before it reaches the open air) to transform it into methane or hydrogen (via a chemical process) – **fuels with low greenhouse gas emissions**

ACCEPTABILITY

Have **sewage treatment** plants near where you live, to produce **energy locally** (biomass) from the **area's waste**

68%

Have **incinerators** near where you live, for **local energy** production from the **area's waste**

63%

Pay a little more for your **energy** so that it emits **less CO2** and is "**local**" (produced close to home)

61%

CONDITIONS



No risk to our health

49%



Sustainability of the solution for energy independence

43%



Demonstration of the reduction of greenhouse gas emissions

43%

Resource scarcity and pollution: a certain and immediate risk, desirable and already partially "familiar" solutions

RISK

77% believe that the risk **RESOURCE SCARCITY** is **serious and immediate**

76% Consider that the risk of **POLLUTION OF RESOURCES** and **IMPACT ON OUR HEALTH** is **serious and immediate**

SOLUTIONS

Recycling certain **plastic waste**

Recycling certain **electric and electronic waste**

Recycling **used electrical batteries**

Eco-designing products by integrating recycled raw materials **of the same quality as virgin materials** into the manufacturing process

Improving water treatment by **eliminating micropollutants of toxic products** present in small quantity

Cleaning up **contaminated soil** by pollutants such as hydrocarbons or heavy metals

Reducing **indoor air pollution**

ACCEPTABILITY

Sort your waste more

Buy food **packaged in recycled materials**

Buy everyday products **made from recycled materials**

Have **industrial recycling sites** set up in the area where you live, so that **recycling is done locally** from local waste

Buy a car or other means of transport **made in part from recycled materials**

Pay a little more for your everyday products **to be recycled**

Pay a little more for your everyday products to be **made from recycled materials**

Pay a little more tax so that public buildings are equipped with **indoor air quality** detectors and **air pollution** control equipment

82%

80%

78%

76%

75%

63%

63%

61%

CONDITIONS



No risk to our health

47%



Sustainability of the solution against resource scarcity and pollution

45%

Threats to biodiversity and food security: a real risk, partially acceptable solutions provided there are solid health guarantees

RISK 74% consider that the risk of **LACKING** and **POOR QUALITY FOOD** is **serious and immediate**

SOLUTIONS

- REUSE: Using **processing** technologies to produce **water to irrigate crops** that meets health standards directly from **wastewater**
- Using **organic waste** and **sludge from wastewater treatment** plants to produce "**organic**" **fertilisers** replacing "**chemical**" fertilisers
- Feeding **fish and livestock** with **fly larvae meal**
- Developing **urban agriculture**

ACCEPTABILITY

Eat food from agriculture using recycled water	Wash dishes and clothes with recycled water	Wash with recycled water	Pay a little more per m3 of water to develop wastewater reuse	Drink water from wastewater treatment	Eat food from agriculture using sewage sludge	Reduce meat consumption	Eat fish or meat from animals fed with fly larvae meal
69%	69%	66%	59%	53%	68%	67%	60%

CONDITIONS

- No risk to our health** 54%
- Sustainability of the solution against the lack of food and the risk of poor quality** 43%