ECOLOGICAL TRANSFORMATION: "are we (still) ready?"

BAROMETER OF THE ECOLOGICAL TRANSFORMATION - 2024 EDITION UNITED ARAB EMIRATES



WHY THE BAROMETER OF THE ECOLOGICAL TRANSFORMATION?

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

IPCC reports, climate strategies, the Green New Deal, the COP: there are **many proposals** to fight climate change, biodiversity loss and pollution. **But as half the people on the planet are about to vote in 2024, voices are raising around the world calling for a sharp slowdown of the ecological transition and gathering under a new banner: the ecological pause.** The large-scale adoption and deployment of ecological solutions raise a decisive question: are the needed changes to win 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

Decarbonisation

Decontamination

Resources regeneration

A novel angle : acceptability of ecological solutions and desirability of the transition

What are the **psychological**, **economic and cultural obstacles** to adopt ecological solutions?

How do we arbitrate between the cost of action and the cost of inaction?

Why are we prepared to **bear or accept the cost of ecological transformation?** What are the **objectives and benefits that make people want to make the ecological transition?**



BAROMETER of the **ECOLOGICAL TRANSFORMATION** | April 2024

Methodology



Target countries

A survey carried out in 26 countries on 5 continents, involving over 29,500 individuals (between 1,000 and 2,000 per country). 1 500 individuals were surveyed in the UAE. The countries were chosen for their demographic weight, their weight in GHG emissions and to ensure a diversity of ecological political and cultural histories. Overall, these countries represent nearly 60% of the world's population, 67% of global GHG emissions and 77% of global GDP. See details on the next page.

Collection method and field dates

An online survey conducted from 17 October to 6 December 2023. In the UAE, the survey took place from November 6 to 23, 2023.

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For each of the 26 countries, a representative sample of residents aged 18 and over was selected. Representativeness was ensured using the quota method applied to the following variables: gender, age, socio-professional category or income (depending on the country), urban area 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).

« World opinion » is indicated with the world symbol .

Frequency of the barometer

Every 18 months. This is the 2nd edition. The guestions common to the 2 editions and showing significant changes (+ / - 3 % points) are indicated 1+3 -3



A global scope



			Number of people Interviewed	Pop. of the country on global pop.	country in global GHG emissions	Share of world GDP
		TOTAL	29 500	59,2%	67,0%	77,0%
AFR	ICA					
1	CIV	Ivory Coast	1 000	0,4%	0,1%	0,1%
2	MAR	Morocco	1 500	0,5%	0,2%	0,1%
З	NGA	Nigeria	1 000	2,8%	0,8%	0,4%
AME	RICA					
4	S BRA	Brazil	1 000	2,7%	2,4%	2,0%
5	CHL	Chile	1 000	0,2%	0,3%	0,3%
6	COL	Colombia	1 000	0,6%	0,4%	0,3%
7	USA USA	United States	2 000	4,2%	11,2%	25,8%
8	MEX		1 000	1,6%	1,5%	1,7%
EAS	TERN ASIA					
9	CHN	China	1 000	17,6%	29,2%	16,9%
10	IND IND	India	1 000	17,8%	7,3%	3,6%
11	IDN	Indonesia	1 000	3,4%	2,3%	1,4%
12	• JPN	Japan	1 000	1,5%	2,2%	4,0%
EUR	OPE		1.000	1.00	1 50	
13	DEU	Germany 💿	1 000	1,0%	1,5%	4,2%
14	BEL	Belgium 💿	1 000	0,1%	0,2%	0,6%
15	ESP	Spain 🔍	1 000	0,6%	0,6%	1,5%
16	FRA	France 🙂	1 000	0,8%	0,8%	2,9%
17		Norway 🤤	1 000	0,1%	0,1%	0,5%
18	HUN		1 000	0,1%	0,1%	0,2%
19		Italy 😁	1 000	0,7%	0,7%	2,1%
20	- NDL	Netherlands 😻	1 000	0,2%	0,3%	1,0%
21	POL	Poland V	1 000	0,5%	0,7%	0,8%
22			1 000	0,1%	0,2%	0,3%
23		Unitea Kingaom	2 000	0,8%	0,8%	3,2%
		Soudi Arobio	1 500	0.5%	1 59/	1.0%
24	SAU	Jaugi Arabia	1 500	0,5%	1,3%	1,0%
25 0CE		United Arab Emilates	1 500	U, I %	0,3%	0,5%
26	S AUS	Australia	1 000	0,3%	1,1%	1,6%



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Ecology, do we stop or do we go further ?



The planet is burning, humankind is suffering: the collapse has begun

Since November 2023, dozens of municipalities in the regions of Nord and Pas de Calais (France) have been hit by successive floods, leading to power cuts, evacuations and restrictions on the use of water. Soil was waterloaged and overflowing rivers flooded crops. The subsiding of floodwater is making it much harder for farmers to get back to normal, and to rotate their crops. With global warming, the increase in rainfall is set to become stronger, increasing the risk of a recurring situation.



Our planet has just endured a season of simmering the hottest summer on record. Climate breakdown has begun.

António Guterres. Secretary General of the United Nations

According to the European Copernicus programme. 2023 was the hottest year on record. The average annual temperature reached 14.98°C, with peaks of 53°C in Death Valley and 38°C recorded in the middle of winter in Argentina.

At this rate, the climate in a city like Paris could be similar to Seville or Canberra by 2050, with long heatwaves and temperature peaks over 50°C.

In August 2023, Maui (Hawaii) burns

razed to the ground. 100 people died

and around thirty disappeared. It was

one of the deadliest fires in the United States, and the rebuilding costs

exceeded 5.5 billion dollars, according to

down. The town of Lahaina was nearly

In France, Rumilly (Haute-Savoie) is one of 17,000 European sites contaminated by eternal pollutants. The town's water supply had to be cut off, and large quantities of PFOA were found in the blood of some residents. In December 2023, the International Agency for Research on Cancer classified PFOA as "carcinogenic to humans".

Fine particle pollution, emitted by motor vehicles, industry and fires, represents "the greatest external threat to public health" according to the Energy Policy Institute of the University of Chicago (EPIC).

In New Delhi (India), one of the world's most polluted cities, the average person loses 12 years of life expectancy due to air pollution.

According to scientist Raul R. Cordero, "a change of a few degrees in the tropical Pacific can make the difference between a relatively calm forest fire season and a widespread disaster".





Since the beginning of February, Chile has been experiencing "the greatest climatic tragedy for more than ten years", according to President Gabriel Boric. The country is facing violent fires fuelled by extreme temperatures and violent winds during an intense drought. The climate situation has been intensified by the natural phenomenon El Niño (which causes a rise of sea and atmospheric temperatures). More than 43,000 hectares of forest went up in smoke, thousands of homes were destroyed and 122 people died.

the authorities.

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Health and quality of life, the first victims on the Emirati front of ecological and climatic insecurity

All over the world, the litany of record-breaking temperatures continues to grow, with human losses, health problems and material damage caused by extreme weather events. Countries that have historically been the most vulnerable (low GDP, poor access to essential services such as water, etc.) and developed countries that have long felt "safe", protected by their economic development, are now united by the same ecological fear.

60% of Emiratis feel exposed and vulnerable to a risk linked to climate change or pollution. Residents on the lowest incomes feel more exposed and vulnerable to the threat, whether health or material (+5 to +19 points vs. the highest incomes, for all risks).

5 points lower than the world average (65%), the ecological and climatic insecurity in the UAE is comparable to the levels recorded in Great Britain, Australia, parts of Africa (Morocco, Ivory Coast) and the USA, and much higher than its Saudi neighbour (48%, the only country with Norway where less than 1 in 2 people feel vulnerable). Latin America, Asia, Southern and Eastern Europe are the regions of the world with the highest levels of perceived vulnerability (>66% and up to 82% in Brazil).



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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?

60% of Emiratis are convinced that climate change is currently happening and that human activity is the main cause

Faced with the "climate and ecological wall", **81% of Emiratis are certain that climate change is underway**. However, its anthropogenic origin is still the subject of debate among 21% of them: 14% support the theory of a strictly natural phenomenon, while 7% argue that it is impossible to identify the cause.

Already among the small number of countries with more than 25% sceptics or deniers in 2022 (1st edition of the Barometer), **climate deniers have not gained a single vote** in the UAE in 18 months. The majority of sceptics are under 25 and on the country's lowest incomes.

On the other hand, they have recruited in large numbers in 14 of the 26 countries covered by the Barometer, particularly among the lowest income groups and among conservative and right-wing populist sympathisers and voters in Great Britain (+5), Eastern Europe (+10 and +5 in Poland and the Czech Republic), Africa (+8 in Ivory Coast) and Australia (+6).

13 of the 26 countries - the UK, USA, Australia and in Africa, Eastern Europe and the Middle East - now have between 26% and 43% of people who contest whether man is responsible for global warming or whether it even exists.



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



The temptation of ecological fatalism

(ACA)

As in 2022, **the UAE is split in two, between those who lean towards ecological fatalism** (doubt among a third of the population and resignation among a minority of 13%) **and those convinced that we are still masters of our own destiny**, capable of limiting climate disruption and pollution (54%, rising to 71% among wealthy people).

Optimism and determination are clearly in the majority in Asia (excluding Japan), Africa and Latin America (> 60%), but the temptation to fatalism is growing on every continent. **Resignation is particularly prevalent among the lowest income groups** in Asia, Africa, Latin America and Central Europe (+15 to +20 points of doubt in 18 months).



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?



Ecological transition: appropriate action, but no horizon

Emirati fatalism is at least partly fuelled by the failure of the ecological imaginary: while almost 4 out of 5 Emiratis believe that action and investment in favour of the ecological transition are commensurate with the risk in their country, a majority still fail to imagine the post-carbon world and their daily life (stable vs. 2022, < 9 points vs. world average).

Of the 26 countries in the Barometer, only Colombia (50%) and Indonesia (63%) have a majority of inhabitants capable of imagining the concrete benefits of ecological and climate action.





The ecological pause, a dead end?

Environmental regulations are dividing and polarising public opinion. All over the world, voices opposing social policy and ecological action are rising to encourage "pragmatism", to put the consequences of the climate crisis into perspective and to call for an "ecological pause".

But global warming is accelerating. Without a major reduction of emissions, the 1.5 degree threshold could be exceeded in 2030, with all the connected human and economic costs. Yet the sums needed "to adapt to global warming are ten to eighteen times greater than current international public financial flows", i.e. 203 to 365 billion euros each year (UNEP).

Ecology is a new political crest line, as half the world's voting age population is called to the polls (4.1 billion people) in nearly 70 countries: Russia, Belarus, South Africa, South Korea, Taiwan (presidential and legislative elections), Iran, Pakistan, India, the world's most populous country (legislative elections), the American superpower (presidential elections), the largest trading bloc (European elections), Indonesia (legislative elections), Mexico, the largest Spanish-speaking country (presidential elections).

In January 2024, **the Norwegian parliament** authorised mining prospecting on 280,000 km2 of its seabed with the aim of finding reserves of increasingly coveted minerals (cobalt, zinc, copper).

In September 2023, Rishi Sunak,

announced that he was "adopting

a more pragmatic, proportionate

achieving carbon neutrality, which

eases the burden on working

people" by backing down on a number of green measures.

the British Prime Minister.

and realistic approach to



In March 2023, the Farmer-Citizen Movement (BBB) became the leading political force in the Dutch Senate, notably by representing the rural and agricultural world's opposition to the • "nitrogen plan" (50% reduction in emissions by 2030).





In November 2023, Justin Trudeau's government in Canada announced a carbon tax exemption for Canadians who heat with heating oil, for the next 3 years (carbon pricing had been introduced in 2018).



In November 2023, Javier Milei was elected President of the Republic of Argentina, stating that **"global** warming is a lie".



In May 2023, French President Emmanuel Macron called for **"a** *European regulatory pause"* in terms of environmental constraints, so that the weight of standards does not slow down European economies.

During COP 28, **India**, which said it was in favour of tripling renewable energies by 2030, **refused to join the 116 nations in ratifying an agreement because of restrictions on coal**, calling for a *"phasing out of coal-fired power generation"*.



While Anthony Albanese's Australian Labor government was talking about ambitious climate targets, the country continues to give major support to the coal and fossil fuel industries. According to the Australian Conservation Foundation, **no fewer than "16 fossil fuel projects have been approved or received some form of support"** since the government took office in 2022.

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Inaction is still considered more costly than ecological action



64% of Emiratis are now convinced that inaction will cost them more than ecological action (climate change deniers, of whom there are many in the UAE, are themselves in the majority (52%) to establish this cost/benefit ratio for ecological action). Despite a drop in opinion since 2022 (-6), the country remains within the global average (stable) and 4 points higher than Saudi Arabia.

Asia, Africa, Latin America, Southern Europe and a large part of Central and Eastern Europe are the most categorical regions of the world (>60%). The decision is more cautious in the USA, Australia, the Czech Republic and the Netherlands (between 52% and 57%) but **remains overwhelmingly in favour of action everywhere.**



the costs of the consequences of climate disruption are going to be greater than the investments needed for ecological transformation

O 68% (+12 vs women)

67% Dubai

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?





The seriousness of the health threat has become a certainty And mass poverty is a credible threat



Question : In a report published in 2021, the World Health Organization (WHO) said that climate change is the single biggest health threat facing humanity. Do you think this information is true or false? The World Bank says that "climate change is an acute threat to the poorest people across the world, with the power to push more than 130 million people back into poverty by 2030". Do you think this information is true or false?



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So, what do we do ?



Protecting health and quality of life to make ecology desirable

In the UAE, as in all regions of the world, a desirable ecology is an ecology that protects in all the emirates, whatever the gender, generation or income level, protecting health and quality of life makes people want to act and consent to the additional costs and changes in behaviour induced by most ecological actions, whether they aim to protect resources, decarbonise or depollute.

Protecting purchasing power is a lever of consent to change, but in all categories of the population, the prospect of a financial reward to encourage it is significantly less motivating than the health benefit.



Question : The ecological transformation may lead us to change some of our behaviours, sometimes change the way we live or cost us a little more. What would encourage you to make these changes? What would make them easier for you or would justify the extra costs?

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Collective action, national pride and concrete results to encourage change



Question : The ecological transformation may lead us to change some of our behaviours, sometimes change the way we live or cost us a little more. What would encourage you to make these changes? What would make them easier for you or would justify the extra costs?



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A joint commitment of all stakeholders to find and implement solutions

Achieving concrete results in terms of health and quality of life depends on the ability of all players to work together, with each having a duty to act in line with their means and responsibilities.

Governments and international institutions are the actors of planning, with a role of stimulating and framing through standards and regulations, whether encouraging or constraining.

Local authorities are the architects of the territory, in the front line when it comes to risk prevention, adaptation and response.

Emiratis are neither hesitant nor reluctant to give an essential role to individual responsibility. Despite the temptation of fatalism, free-rider strategies, or the denial by some of the population that climate change is of anthropogenic origin, most of them are certain that the ecological transition will not happen without them. Finally, **businesses** are the innovators and implementers of solutions.







Programming, inventing, supporting, informing and updating laws to succeed



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Question : In your opinion, what matters for the success of the ecological transformation in your country (reducing greenhouse gas emissions and pollution, and protecting natural resources and biodiversity) ?



Such as making health and ecological risks the keys to local decision-making for water, waste and energy

The majority of Emiratis believe that local decisions on water, waste and energy should **take their health into account** whenever they require an arbitration (investment, choice of technology), **at least as much as the final price for the consumer.**

Apart from Czech Republic, health and resource protection are everywhere considered essential by a larger share of the population than the final price. On every continent, people on the lowest incomes make the same decision, both in terms of hierarchy and % level.





But the path to follow between sobriety and technology divides the UAE

1 in 2 of the world's inhabitants shares the conviction that we need to combine sobriety and technology to limit climate change and reduce pollution. In 23 of the 26 countries included in the Barometer, a majority (at least relative) of between 43% and 69% agree on the complementary nature of these means.

Emiratis, Saudis and Moroccans are the exceptions. The debate divides the UAE, Saudi Arabia and Morocco into 3 groups of equivalent size.



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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 ...?

Decarbonising, depolluting and regenerating our resources



Micro-pollutants and soil pollution: health risks are unacceptable and justify additional costs, beyond socio-economic divide



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Reuse and recycled: resource conservation, avoided pollution and economic co-benefits lever the social acceptability of changing behavior



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Reuse, electrical/electronic devices and plastics recycling: economic, geopolitical and ecological gains can justify the cost of action



Local and low-carbon energy: decrease of GHG emissions, security of local supply and reduction of national energy dependency make the extra cost acceptable





United Arab Emirates – Key figures





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APPENDIX



PART A : Diagnostic

Existence of climate change

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

- 1. Yes, climate disruption is currently happening
- 2. No, nothing unusual is happening

Human responsibility for climate change

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

- 1. Yes, the disruption is mainly due to human activity
- 2. No, the disruption is mainly due to a natural phenomenon
- 3. There is no way of knowing

Fears about the consequences of climate change

When you think about the risks related to climate disruption and pollution (water, air, soil), do you...

- <u>personally</u> feel exposed and vulnerable to them?
- 1. The risk of <u>falling ill</u> owing to <u>pollution</u> (water, air, soil)
- 2. The risk of <u>property damage</u> caused by <u>natural disasters</u> (impact of floods, droughts and severe weather events on buildings and infrastructure such as roads, gas and electricity networks, water supply, etc.)
- 3. The risk of increasingly harsh <u>living conditions (extreme temperatures, limitation of water consumption</u> for certain uses in case of drought, disappearance or decline in the quality of certain foods, etc.)
- 4. The risk of being in poorer health due to the reduced nutritional quality of food
- 5. The risk of having mental health problems (stress, depression, anxiety)

• feel that <u>your country</u> is exposed and vulnerable to them?

- 6. The degradation of the ecosystem, the biodiversity in my country (disappearance of animals, flora, etc.).
- 7. Migratory <u>movements</u> caused by pollution (water, air, soil) and the consequences of climate disruption (drought, famine, rising sea levels, etc.)
- 8. An increased risk of infectious diseases (spread by mosquitoes, insects or animals)
- 9. The risk of lacking food and having poor quality food
- 10. The risk of resource scarcity and depletion (lack of drinking water, healthy soil for agriculture, etc.)

Awareness of the risk of poverty/impact on global living standards

The World Bank says that "<u>climate change is an acute threat to the poorest people</u> across the world, with the power to push more than 130 million people back into poverty by 2030". Do you think this information is true or false?

- 1. I'm certain it is true
- 2. I think it is true
- 3. I think it is false
- 4. I'm certain it is false
- 5. I don't know if it is true or false

Climate change, the greatest threat to health

In a report published in 2021, the World Health Organization (WHO) said that <u>climate change is the single</u> <u>biggest health threat facing humanity</u>. Do you think this information is true or false?

- 1. I'm certain it is true
- 2. I think it is true
- 3. I think it is false
- 4. I'm certain it is false
- 5. I don't know if it is true or false

Our climate and ecological future in our own hands

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?

- 1. Yes, I'm sure we still have the future in our hands
- 2. I'm not sure
- 3. No, it is too late, we no longer have our future in our hands

The role of technology

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...?

- 1. Considerably <u>reduce</u> our <u>consumption</u>, live more <u>frugally</u> (energy, food, transport, etc.)
- 2. Put in place and invent <u>technologies</u> to <u>offset</u> and <u>reduce</u> the consequences of pollution and climate disruption
- 3. <u>Both at the same time</u>: fundamentally change our ways of life and live more frugally, <u>and at the same time</u> put in place technologies to offset and reduce the consequences of pollution and climate disruption

Type of action

In your opinion, what matters for the success of the ecological transformation in your country (reducing greenhouse gas emissions and pollution, and protecting natural resources and biodiversity)?

It's key, it's essential for getting there / It won't do everything, but it's useful / It won't do much

- 1. <u>Planning</u>, having a long-term vision for solutions and investments to promote ecological transformation
- 2. <u>Updating laws and regulations to support ecological transformation</u>
- 3. <u>Innovating</u>, inventing new ways of doing things (manufacturing, travelling, housing people, diet, etc.) that produce little pollution, produce few greenhouse gas emissions and use few natural resources
- 4. <u>Supporting</u> the adoption of behaviours and lifestyles that are less polluting and use few natural resources (incentives or financial support, information, expanding the range of suitable products and services, penalties, etc.)
- 5. <u>Informing</u> and explaining the risks and dangers to the climate and the environment to everyone

PART A : Diagnostic

Actors

To what extent do we need each of the following stakeholders to find and implement specific and effective solutions for ecological transformation?

These stakeholders are essential, we can't achieve ecological transformation without them / They aren't essential but they still have a role to play / They are not needed for achieving ecological transformation

- 1. International institutions (the United Nations, G20, World Health Organization, etc.)
- 2. Governments
- 3. Local authorities
- 4. Businesses
- 5. Individuals

Cost of climate and ecological action/inaction

IPCC scientists say that the <u>costs</u> caused by the <u>damage linked to climate disruption and pollution are</u> going to be greater than the investments needed for the ecological transition of society.

Do you think this information is true or false?

- 1. I'm certain it is true
- 2. I think it is true
- I think it is false
- 4. I'm certain it is false
- 5. I don't know if it is true or false

Assessment of the action in relation to health risks/quality of life

In your opinion, is action and investment in supporting ecological transformation in your country commensurate with the risk that pollution, climate disruption and the depletion of natural resources poses to your health and quality of life?

- 1. Completely commensurate
- 2. Somewhat commensurate
- 3. Not very commensurate
- 4. Not at all commensurate

PART B : Solutions and acceptability

The IPCC (Intergovernmental Panel on Climate Change), a body created by the United Nations and which comprises almost all the countries of the world, recently published a report that states that our current lifestyles will lead to a temperature increase of 3.5 to 5°C by 2100. In order to limit the negative effects of global warming, the temperature increase should be limited to 2°C by 2030.

Ability to imagine the world transformed

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?

- 1. Yes, <u>I find it quite easy to imagine what the world and our daily lives might look like after the ecological transformation</u>
- 2. <u>I have a vague idea</u>, but <u>it is still very unclear</u>
- 3. No, <u>I can't really see what the world and our daily lives might look like after the ecological transformation</u>

CLEANING UP

Each year, pollution (air, water and soil) causes 9 million deaths worldwide (according to leading medical journal The Lancet), three times more than AIDS, tuberculosis and malaria deaths combined. We already have solutions for reducing this pollution. They include:

- Eliminating micropollutants found in small quantities in drinking water, toxic products such as pesticides, herbicides, household products, solvents and medicine residues
- Cleaning up soil contaminated by pollutants such as hydrocarbons or heavy metals (lead, mercury, copper, zinc, etc.)

New trade-off between the cost of action in the short term and the cost of inaction in the medium term (individual level)

Elimination of micropollutants from water

Some micropollutants cause cancer, neurological or behavioural disorders, and endocrine hormone disruption (source: Inserm). Treating water to eliminate these micropollutants could cost a little more. If it reduced the risks to your health, would you be willing to <u>pay a little more for your water today to eliminate these micropollutants</u>?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

Soil decontamination

Pollution of soil with hydrocarbons or heavy metals can significantly reduce crop yields, or even leave them completely unusable for agriculture. Cleaning up soil could cost a little more.

If it reduced the risks to your health, would you be willing to <u>pay a little more for your fruit, vegetables and</u> <u>meat</u> to clean up and protect agricultural soil?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

PART B : Solutions and acceptability

REGENERATE

In 2023, by 2 August, humanity had consumed all the resources that the planet is capable of regenerating in one year. This date comes increasingly earlier each year. The depletion of resources is a risk to the health, quality of life and economy of a country. It can also be a source of conflict between countries. We already have solutions for preserving resources. They include:

- Recycling wastewater (domestic, industrial and rainwater) to produce drinking water that meets health standards
- Recycling plastic
- · Recycling batteries and electrical and electronic equipment

New trade-off between the cost of action in the short term and the cost of inaction in the medium term (individual level)

Reuse of wastewater

Following the summer of 2022, the UN said that 40% of the world's population was affected by water shortages. Recycling wastewater to directly produce drinking water that meets health standards could limit the draining of water tables, and reduce water shortages for individuals and the country's agriculture and economy (industry and tourism). This could cost a little more.

If it reduced the risk of water shortages for you and your country's agriculture and economy, would you be willing to <u>pay a little more for your water today</u> so that it was recycled?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

If it reduced the risk of water shortages for you and your country's agriculture and economy, would you be willing to <u>eat food from agriculture that uses water recycled</u> directly from treated wastewater?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

If it reduced the risk of water shortages for you and your country's agriculture and economy, would you be willing to <u>drink drinking water that had been produced by recycling wastewater</u>?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

Plastics recycling

Recycling plastic reduces plastic pollution and limits the extraction of oil (which is used to produce plastic). This could cost a little more.

If it reduced plastic pollution and limited oil extraction, would you be willing to <u>pay a little more for your</u> <u>everyday products containing or packaged in plastic to be sure that they were recycled</u>?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

It is possible to package food in recycled paper or plastic. If it reduced plastic pollution and limited oil extraction, would you be willing to <u>buy food packaged in recycled materials</u> (recycled paper or plastic)?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

Recycling electrical and electronic equipment and batteries

Recycling batteries and electrical and electronic equipment enables the recovery of the rare metals they contain, which are essential for manufacturing many high-tech products. It also reduces pollution caused by the extraction of rare metals, and reduces dependence on countries that produce these metals. This could cost a little more.

If it limited pollution caused by the extraction of rare metals and reduced dependence on countries that produce these metals, would you be willing to pay <u>a little bit more for your electrical and electronic devices</u> to be sure that the battery and the device itself will be recycled?

- 1. Yes, without hesitation
- 2. Yes, probably
- 3. No, probably not
- 4. No, definitely not

PART B : Solutions and acceptability

DECARBONISE

The IPCC states that greenhouse gas emissions (including CO2), which are responsible for global warming, have continued to increase in recent years. To limit global warming to 2°C, these greenhouse gas emissions must be drastically reduced. Climate impacts include an increase in natural disasters (floods, droughts, fires, heat waves, cyclones), melting glaciers and rising sea levels, resulting in increased food and water crises, health crises, the extinction of animal and plant species, etc. We already have solutions for reducing CO2 emissions. They include:

Locally producing low-carbon energy from the incineration of non-recyclable waste and biomass (agricultural waste, wood, leaves, waste of animal origin, etc.) from the area

New trade-off between the cost of action in the short term and the cost of inaction in the medium term (individual level)

Local low-carbon energy production

When energy is produced and burnt, carbon dioxide (CO2) is emitted. Producing energy locally from the incineration of non-recyclable waste and biomass reduces CO2 emissions, reduces dependence on countries that produce fossil fuels, and provides energy security for your region. Producing low-carbon energy locally could cost a little more.

Would you be willing to <u>pay a little more for energy so that it was produced locally from non-recyclable</u> <u>waste and biomass</u>, if it...?

Yes, without hesitation / Yes, probably / No, probably not / No, definitely not

- 1. Reduced CO2 emissions (responsible for global warming)
- 2. Reduced dependence on countries that produce fossil fuels
- 3. Provided energy security for your region

Elements of the public decision

When making decisions about managing water, waste or energy where you live, should your local leaders/elected officials take into account:

It's essential / It's important, but not essential / It's not important

- 1. Protecting your health
- 2. The environmental risks (pressure on resources, pollution, drought, greenhouse gas emissions, etc.)
- 3. The end price for you (price of drinking water, energy, waste management, etc.)

PART C : Desirability of ecology

Desirability levers

The ecological transformation may lead us to change some of our behaviours, sometimes change the way we live or cost us a little more. What would encourage you to make these changes? What would make them easier for you or would justify the extra costs?

It would make a big difference, it might really make me want to do it / It might help, but it isn't what would get me to change / It wouldn't make a difference for me

- 1. Being sure that it would protect or improve my health and the health of those around me
- 2. Being sure that it would protect or improve my quality of life (preserving the landscapes I love, fewer natural disasters and extreme temperatures, fewer droughts, nicer air to breathe, less noise etc.)
- 3. Being sure that it would guarantee my country's energy independence and that everyone would have energy when they need it
- 4. Being sure that it would guarantee my country's food independence and that everyone would have enough quality food
- 5. Quickly seeing results, positive effects
- 6. Feeling like everyone is doing their bit, that there's a collective movement
- 7. Making savings
- 8. Earning a little money in return ("financial reward")
- 9. The fact that my country is at the forefront of the ecological transition, being proud of my country and setting an example to other countries around the world
- 10. Understanding why I should give up certain things

ECOLOGICAL TRANSFORMATION: "are we (still) ready?"

BAROMETER OF THE ECOLOGICAL TRANSFORMATION United Arab Emirates

