

TOWARDS A NEW POST-COVID-19 WORLD ?

STRATEGIC REPORT 2021

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OREWORD

In 2019, the Royal Institute for Strategic Studies (IRES) put forth a proposal for a development model whose cornerstone is governance and which is based on four pillars: the human element, Nature, planetarization and exponentiality. The COVID-19 crisis has only served to confirm the relevance of this model by reviving citizens' expectations and hopes, that must be met.

Although it acknowledges the uncertainty surrounding the evolution of the health situation, which has made anticipation almost impossible and has complicated the implementation of appropriate public policies in a world where the virus will continue to spread, IRES has launched an in-depth reflection to understand the issues at hand through the production of analytic and forward-looking policy briefs, the conduct of videoconferences on the issue of COVID-19 as well as the compilation of this new strategic report.

The first half of 2020 will be remembered, around the world, for the outbreak of a global pandemic, which has led to unprecedented lockdowns.

Although less deadly than the Spanish flu and previous Asian epidemics, the COVID-19 pandemic has had unparalleled systemic impacts, both short term ones - closure of borders, slowdown of the world economy, collapse of critical economic sectors, such as tourism, aeronautics, automotive... - as well as medium term consequences, with the ensuing economic and financial crises, worsening inequalities, rising unemployment, famine...etc.

This unprecedented situation has exposed dysfunctions, revealed weaknesses and reinforced certain perceptions, prompting the emergence of a new consciousness, highlighting the need for anticipation and for calling matters into question. This situation seems to lay the ground for significant transformations and disruptions that could happen in the future at the geopolitical, economic, social, societal and environmental levels. It requires a major paradigm shift since the world of tomorrow will be different from that of today.

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OREWORD (2)

The measures taken by states to stem the spread of the COVID-19 pandemic have affected all aspects of their citizens' lives. The health crisis has generated strong expectations in terms of radical change, including the questioning of certain lifestyles, increased digitization of activities, a reform of education, an economic endogenizing process... That situation confirms the return of the State as a key player.

The systemic crisis which had been brewing on a global scale cannot be attributed solely to the pandemic and to the health measures that had to be taken. It rather depicts a world struggling to depart from an old, no longer suitable order and face up to the necessary transformation imposed by evolution.

Getting out of this situation from the top will therefore require thorough **structural reforms**. In addition to the need to face the short-term knock-on effects of the health crisis, it is necessary to come up with a strategic, structural response to the pandemic in order to prepare for the post-COVID-19 world.

Thus, a new vision of the world is emerging. Its three hallmarks are: a new approach to national sovereignty, strong expectation of radical change, as expressed in many countries, and a change of mindset, which puts Man and Nature back at the center of development.

As soon as the first case of coronavirus infection was detected on its territory, Morocco took drastic measures: it closed borders, proclaimed a national health emergency and full lockdown, shut down the places of worship and created a special fund to manage the coronavirus pandemic ...

Moroccan authorities' swift reaction, under the leadership of His Majesty King Mohammed VI, effectively made it possible to slow down the spread of the virus and achieve one of the lowest case fatality rates in the world as well as one of the highest recovery rates.

The Moroccan Royal Vision is based on three pillars: economic recovery, with the creation of the Mohammed VI Investment Fund, universal access to social security within five years and the restructuring of state-owned companies.

This structural response is necessary in order to:

- ❖ correct some dysfunctions and shortcomings, if only to be able to face up to a new crisis,
- ❖ enable the Moroccan economy to recover from the lockdown and the ensuing global economic downturn, thus contributing to social stability in the country
- ❖ tackle the external effects of the crisis on Morocco, especially the decline in international demand and in financial flows from abroad.

The health crisis is a unique opportunity for Morocco, first to accelerate the implementation of a new development model that is fine-tuned thanks to the lessons learned from the COVID-19 pandemic and, second, to prepare **Morocco** for the post-Covid world

As the sixth edition of the “Morocco’s panorama in the world” series, this strategic report is entitled “Towards a new post-COVID-19 world?”. It is not meant to provide a recapitulation of 2020 events, for such publications exist already and are regularly updated (1). Rather, the present report seeks to respond to a current need and, thus, to provide a better insight into the ins and outs of the health crisis in order to define its real scope (Part 1) and determine lasting changes to come, notwithstanding a host of current uncertainties (part 2).

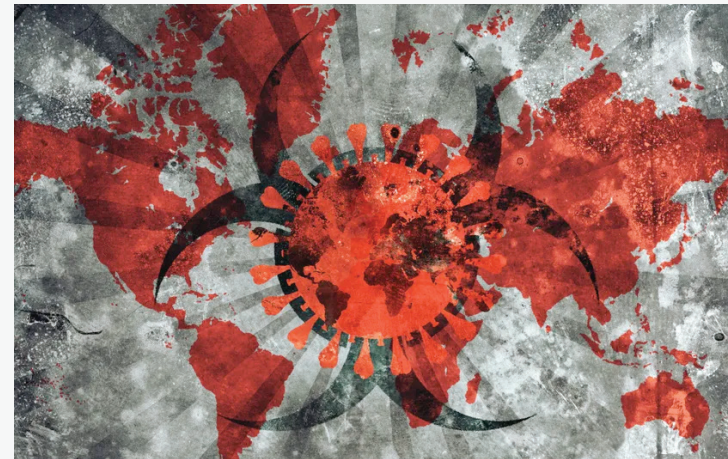
This will give us the opportunity to propose new courses of action, both to increase the resilience of systems that are capable of protecting our fellow citizens, and to break away from operating models which seem to be outdated today (Part III).

The report also highlights the pandemic’s political economic and social aftermath on the African continent as well as the impact of the systemic crisis on Moroccan society and economy, the disruptions caused, the opportunities and the risks they represent and the measures taken by the Kingdom to curb the spread of the virus and ensure economic recovery, thus showcasing a “Morocco on the move”. The report includes proposals that are likely to accelerate the pace of the Kingdom’s development and enhance its integration into the post-COVID-19 world, by consolidating its regional and global influence.

Mohammed Tawfik MOULINE
Director General of the Royal Institute
for Strategic studies

R EPORT READING GRID

- ▶ Quick read-through
 - ❖ In burgundy : the key elements
 - ❖ In black, bold text : titles and keywords
- ▶ Detailed reading
 - ❖ Green-colored pages provide quantitative data.
 - ❖ Red-colored pages include a focus on specific themes or issues.
 - ❖ Yellow-colored pages introduce some “ good practices”.
- ▶ Meticulous reading
 - ❖ Words followed by * are defined in the glossaries at the end of the Strategic Report.
 - ❖ The figures in brackets refer to the sources of the data included in the bibliography at the end of the book.



Courtesy : Peter Zelei Images - Getty



PART I

WHAT CRISIS ARE WE
TALKING ABOUT ?

Coronavirus Disease (COVID-19)*

- ▶ COVID-19 first appeared in China in the fall of 2019 and was declared a global pandemic by the World Health Organization in mid-March 2020. The COVID-19 crisis quickly led to stay-at-home restrictions for populations, a quasi-shutdown of most national economies and a suspension of air travel (and, to a lesser degree, land and sea travel).
- ▶ This unique situation in such an interdependent world seems to be paving the way for some significant changes. “Which ones and why?” is the question to which this first part the report seeks to provide an answer.

One more pandemic ?

- ▶ To answer the question, it is necessary, first, to make a distinction between facts and feelings in order to understand how a pandemic - which is not the first in the history of mankind - has generated a systemic crisis at the political, economic, social and societal levels. Its point of departure? A single health crisis (Chapter One).

Seeds of change

- ▶ The lockdown was an opportunity for many people to ponder - almost in a philosophical way - on their personal and professional situation, as well as the state of the world. This has led to a strong yearning for change.
- ▶ Some manifestations of this yearning have led to the emergence of new practices aimed at tackling the challenges of climate change and social inequalities.
- ▶ Other attitudes, on the other hand, reflect a strong desire to return to normality, to something similar to the pre-COVID-19 world. But what normality are we talking about ?

This crisis has turned out to be highly revealing, both in terms of existing dysfunctions and of an unexpected, powerful yearning for change (Chapter Two).

COVID-19 in the world

Figure 1 : Worldwide statistics (*)

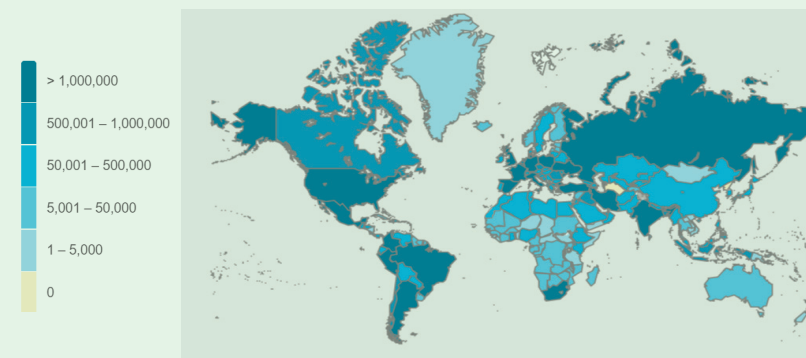
Total confirmed cases	82 707 976
Total deaths	1 805 002
Incidence rate (/ 1 000 000 inhabitants)	10 610
Mortality rate (/ 1 000 000 inhabitants)	231
Mortality rate (%)	2,2%

Most affected countries (number of cases)

United States	19 740 468
India	10 266 674
Brazil	7 619 200
Russia	3 100 018
France	2 657 624
United Kingdom	2 440 202
Turkey	2 194 272
Italy	2 083 689
Spain	1 910 218
Germany	1 741 153

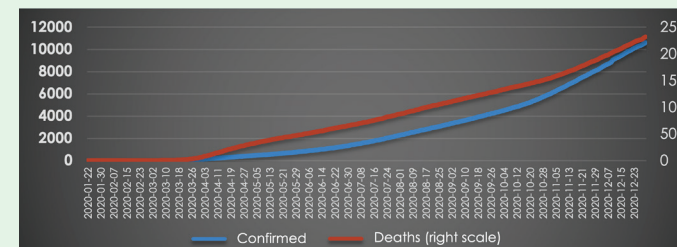
Source :World Health Organization

Figure 2 : Distribution of COVID-19 cases in the world



Source : World Health Organization

Figure 3 : Evolution of infections in the world : number of confirmed cases and deaths per million inhabitants



Source : IRES-processed , Our world in Data ; Johns Hopkins University CSSE

(*) On December 30, 2020

CHAPTER 1

A SYSTEMIC CRISIS

ISSUE AT STAKE

The COVID-19 crisis has affected the entire world (1). Although less deadly than previous epidemics, its systemic impact has proved unprecedented. It has had short term effects (border closures, global economic slowdown, collapse of critical economic sectors: automotive, tourism...) as well as medium term consequences: (successive economic crises, financial crisis, increased inequalities, unemployment...)

During this crisis, social networks have shown both their invaluable contribution to maintaining social ties and a disturbing capacity to cause harm. They have served as a global sound box for rumors, fake news and conspiracy theories on an unparalleled scale.

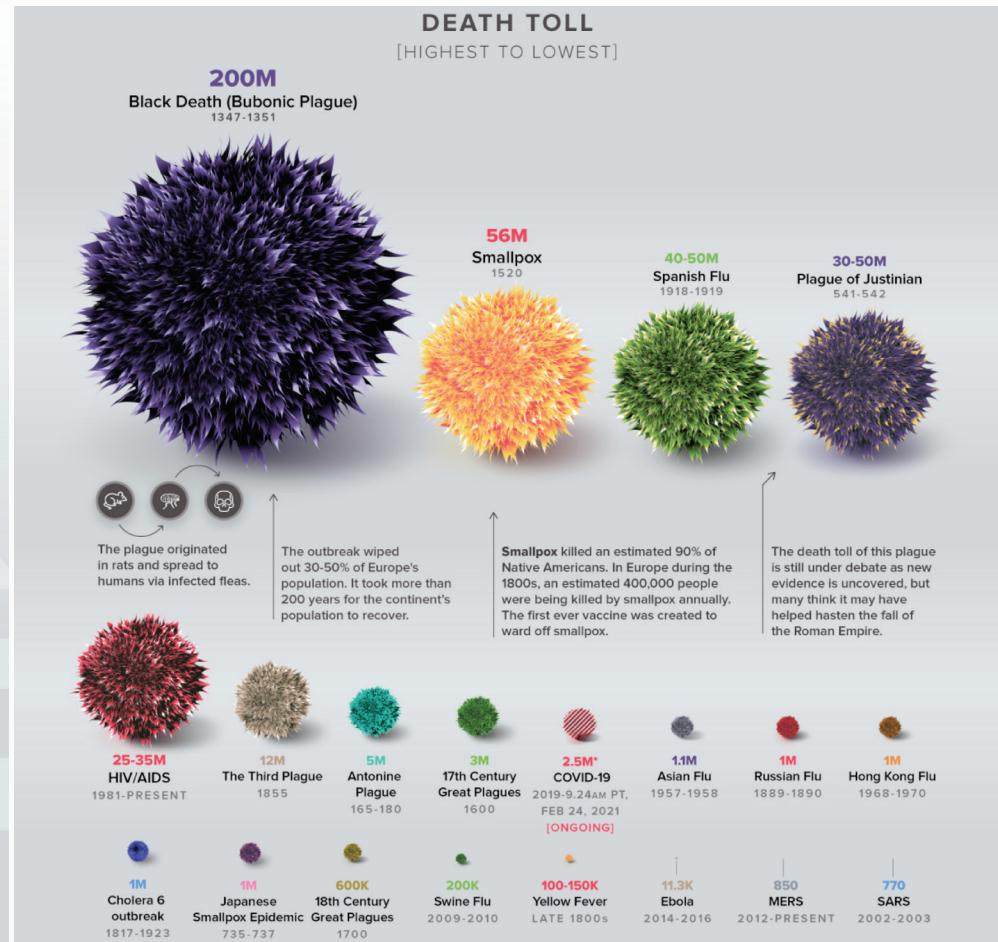
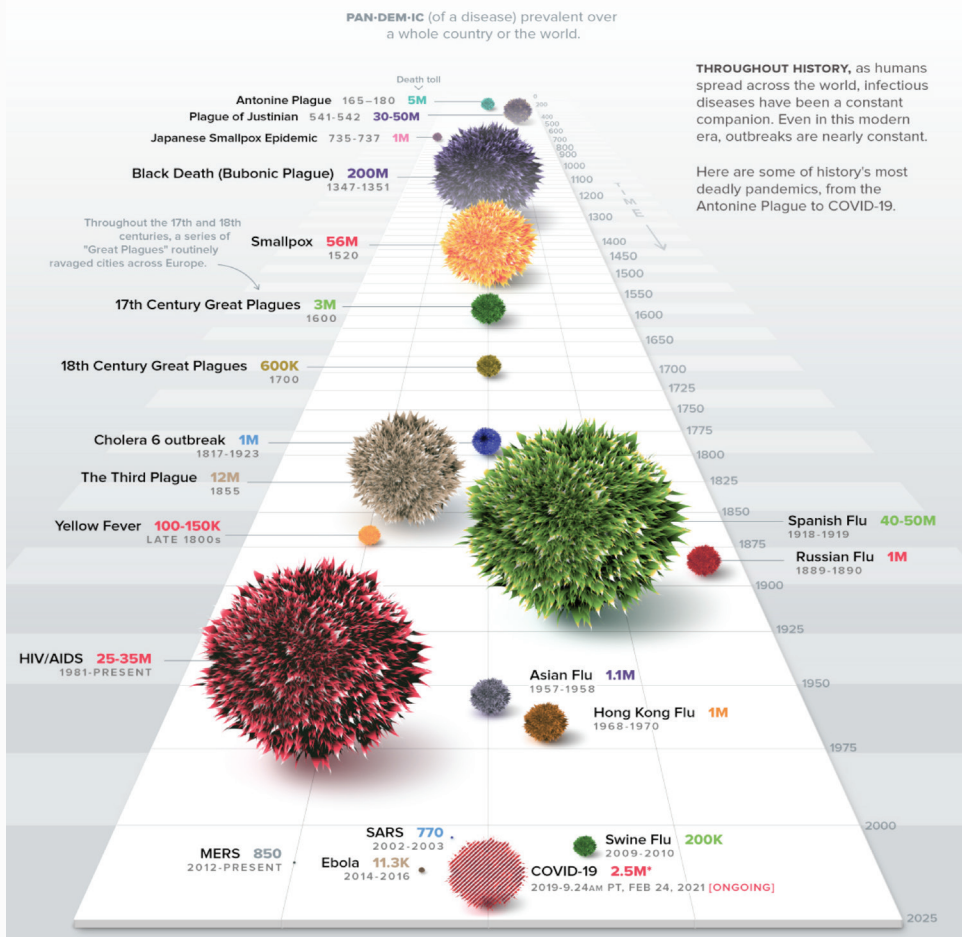
At the same time, established as well as self-proclaimed political, economic and scientific experts, baffled by this new viral object, have given free rein to their uncertainties, hesitations and contradictory proposals, fueling a wave of panic.

Thus, out of a pandemic of unusual proportions, a generalized systemic crisis has emerged, affecting all countries in the world.

Whether the lockdown was the appropriate measure or not is not the core issue. The real question is why countries - both developed and developing - have been so severely destabilized by a few months of lockdown measures.

What will the short, medium and long-term consequences of the disruptions caused by the health crisis be? What post-COVID world do we need to prepare for ?

THE HISTORY OF PANDEMICS



Source : <https://www.visualcapitalist.com/history-of-pandemics-deadliest/>

ONE MORE PANDEMIC ?

Viruses, a manifestation of life

Epidemics have always been part of life, for humans and animals alike. Epizootic diseases*, zoonotic infections* and epidemics* tell the story of this constant interaction with viruses and other pathogens. Most emerging infectious diseases are transmitted to humans by animals (2).

The Earth's first inhabitants developed genetic resistance to agents of animal origin by being close to Nature, or protected themselves thanks to their ancestral knowledge (herbalism and distance keeping). In urban societies, people lost their daily contact with animals and have once again become exposed to zoonotic infections. Finally, urban promiscuity and globalized trade have led to the emergence of pandemics.

The Black Death is still alive in the collective memory. Between 1347 and 1353 **, it wiped out almost 50 percent of Europe's population and at least as much in Asia (3).

More recently, the Spanish flu - which is believed to have infected between a fifth (4) and a third of the world's population, killing at least 50 million individuals between the spring of 1918 and the winter of 1919 (5), mainly in India, China and Europe - is considered the first ever pandemic to have spread on such a large scale (6).

The COVID-19 paradox

With the exception of the specific case of the human immunodeficiency virus (HIV), the history of health crises since 1950 shows an increase in the frequency of epidemics, which is a logical consequence of globalization, and a significant decrease in their mortality rate, thanks to better hygiene, vaccination and health policies (see page 10).

Why have past pandemics not been tackled with the same measures as those taken to combat the COVID-19 crisis? Why didn't they have affect the collective memory as much? Clearly, the responses to the coronavirus pandemic reflect an overreaction, given the magnitude of the pandemic and its lethality.



ONE MORE PANDEMIC ? (2)

Three main reasons can explain this paradoxical situation.

A bleak global landscape : In 1958, as well as in 1968, influenza pandemics took second place to more prominent news. 1958: founding of the Fifth Republic in France, launch of the Great Leap Forward in China, the Algerian War, the Iraqi and Cuban revolutions ... 1968: the international monetary crisis, student revolts, the Prague Spring ...

Conversely, the year 2020 was expected to be a continuation of 2019, without real salient events, despite social discontent which shook the planet from Asia (Hong-Kong, Papua, China, Kashmir) to Russia, the Middle East (Yemen, Syria, Lebanon) Africa (Zimbabwe, Cameroon), Europe (France, United Kingdom) and Latin America (Honduras, Ecuador, Brazil) (7). The outbreak of the pandemic during this lackluster period caught the world's attention, which was already exacerbated by a general wave of social discontent. The media then played their amplifying role to the full extent.

- ▶ **An easy target :** the overall discontent of 2019 was mainly aimed at rulers. In democratic countries, people criticized their governments for their lack of action to tackle growing inequalities. In authoritarian regimes, people asked for more freedoms.

In 2020, the pandemic became the new lightning rod of social discontent: lack of anticipation, insufficient transparency, two-tier health system, poor management of the crisis, social gap between blue collar workers and white collar teleworkers...etc. No country was spared criticism, the more so as the lack of inter-state coordination was particularly conspicuous (see below). Bewildered by the suddenness and magnitude of the crisis, those in charge showed a double-edged faint-heartedness:

- ❖ Those who were slow to react allowed the epidemic to grow to unacceptable proportions;
- ❖ Those who reacted too quickly harmed their economy more than they had to.



ONE MORE PANDEMIC ? (3)

- ▶ **New perceptions** : With the hindsight of past epidemics, the lackluster global landscape and the criticism levelled at rulers are not enough to explain the extent of the reactions observed at the beginning of the pandemic (1st half of 2020). This means that the key in this deciphering exercise lies in internal factors, rather than external ones, i.e. psychological factors, and in particular the following perceptions :
 - ❖ **A false feeling of insecurity due** : due to the remoteness of the specter of war, which is unknown to many current generations in a great many countries, to scientific and technological development and to the vast vaccination campaigns over the last fifty years, which have eradicated many diseases (herd immunity).
 - ❖ **Stability as the norm** : the predominant planned way of life (travel, trips, vacations) – fashioned by the school system and salaried employment – makes one ill-prepared for instability or uncertainty, which, in turn, generate discomfort and anxiety.
 - ❖ **Death as the unacceptable option** : the extension of life expectancy and the physical distancing from the dead (wakes for the deceased tends to disappear in urban settings) are pushing death out of everyday life. Hence the emotion aroused today by a number of deaths that in earlier times would have gone unnoticed.
 - ❖ **The exacerbation of fear** as an outcome of the three preceding perceptions: risk (insecurity, instability, death) must be confronted, and the individual and society must be protected from it. Still, fear of the invisible (in the case at hand, the virus) is even greater than fear of a visible, physical and observable enemy, like in war, for instance (8).
 - ❖ **The unbearable deprivation of liberty** : this feeling provoked extreme reactions (anxiety, breach of sanitary rules) during the lockdown and with regard to the obligation to wear a mask; this led to situations where personal freedom came first, at the expense of one's own health and that of others.
 - ❖ An increasingly expressed **awareness** of a **changing world** (see below), with optimists, change makers and entrepreneurs, on the one hand, and pessimists, conformists and conservatives, on the other

G OVERNMENT STRINGENCY INDEX (GSI)

Composition of the Government Stringency Index (GSI): school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements and international travel controls. The index is scaled to a value from 0 (no measures taken) to 100 (strictest containment measures)

Figure 4 : Government Stringency Index,
April 1st, 2020

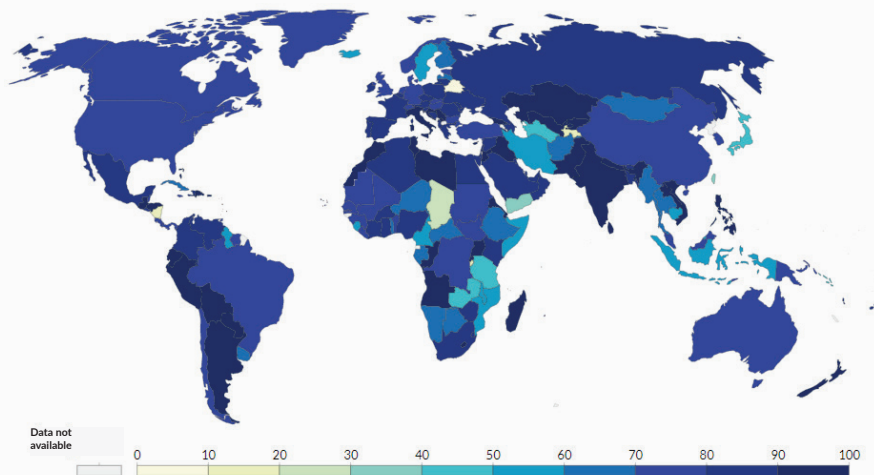
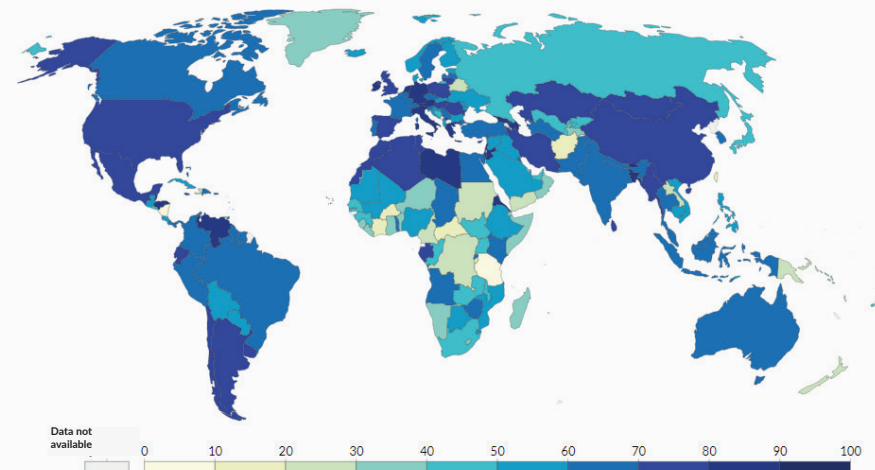


Figure 5 : Government Stringency Index,
December 30th, 2020



Source : IRES-processed _ Oxford COVID-19 Government Response Tracker

ONE MORE PANDEMIC ? (4)

Thus, it is not just the pandemic itself that was challenging, but more particularly the moment in history at which it occurred - the conjecture that shone a spotlight on the event and the change of mindset that made it possible to look at this phenomenon with fresh eyes, although humanity always had to grapple with epidemics.

Questioning the containment measures

- ▶ This new state of mind, seen from the perspective of the pandemics of the 1950s and 1960s, was both revealed and amplified by the containment measures due to the following:
 - ❖ The unprecedented situation, during which introspection was possible over a long period, thus intensifying the splits or, on the contrary, promoting convergences,
 - ❖ the uncertainty as to the outcome of this situation, leading some to rethink their *raison d'être* and take radical measures (divorce, resignation, relocation, volunteering).
- ▶ Regardless of the anguish that populations may have felt during the lockdown, this health measure, known since times immemorial, has proven to be efficient, as shown by the evolution of infections during the first half of 2020. Still, the matter is more complex than that.
 - ❖ Indeed, some countries, such as Sweden and the United Kingdom, initially opted for pursuing herd immunity *, with the understanding that the epidemic would stop when the majority of the population has been infected. However, the virus' case fatality rate and the speed with which it was spreading ultimately led to opting for containment (9).
- ▶ Moreover, the economic and social consequences of the lockdown (see below) strongly called into question both its duration and its implementation.
 - ❖ Keeping past pandemics in mind, was the seriousness of COVID-19 worth the shutdown of part of the global economy? An ethical question, related to this new perception of death, arises: is the life of one person more important than the impoverishment of a hundred others? And if health is more important than the economy, why do health policies fail to reflect that ?
- ▶ Finally, it is legitimate to wonder about the speed, generalization and scale of the exceptional measures taken on March 16, 2020 (lockdown, closure of borders, suspension of air travel and, to a lesser extent, maritime links, proclamation of a state of emergency...) when approximately 7,000 deaths had been reported, knowing that the seasonal flu kills 290,000 to 650,000 people each year across the world... (10).

► How can one explain this major phenomenon, i.e. the sudden lockdown of the planet, which has characterized the management of the COVID-19 pandemic? It is too soon to say with certainty, but two factors played a significant role :

- ❖ The **growing interdependence** of economies and states, which are linked by global trade and bilateral as well as multilateral agreements: if one state reacts, the others must follow to preserve the overall balance of the system. Thus, on 1st April 2020, more than 90 countries had adopted containment measures, i.e. practically half the countries in the world.
- ❖ The weight of the **media** and the concern for one's **image**: the pressure exerted by the speed with which information is disseminated and the swift reactions of Internet users have contributed to the magnitude of this movement, particularly in countries already experiencing social discontent and those that could not afford a tarnished image.

Thus, although COVID-19 has been far less contagious, lethal and permanent than other viruses which affected humankind, it has still brought about a new multifaceted confusion, in the form of a global systemic crisis.

Figure 6 : Inter and intra-regional trade, 2016

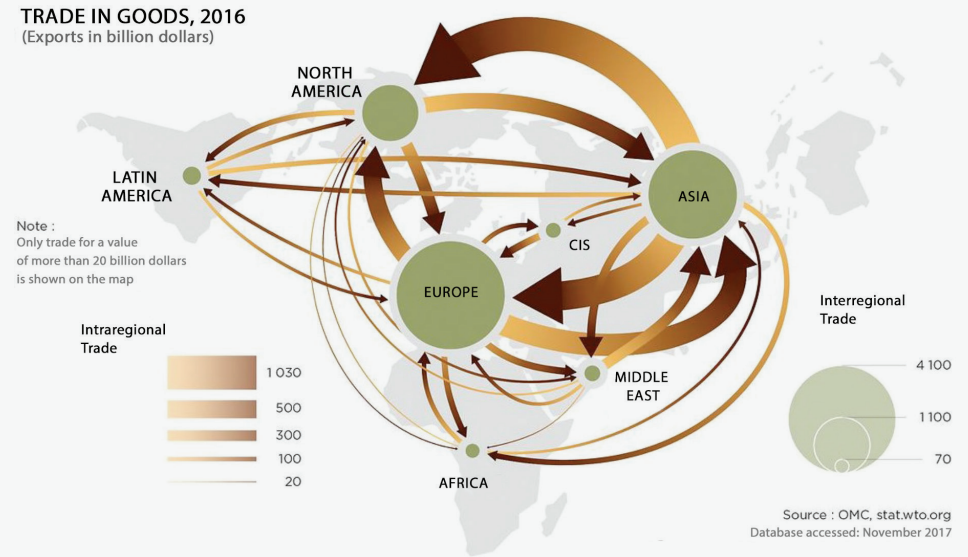
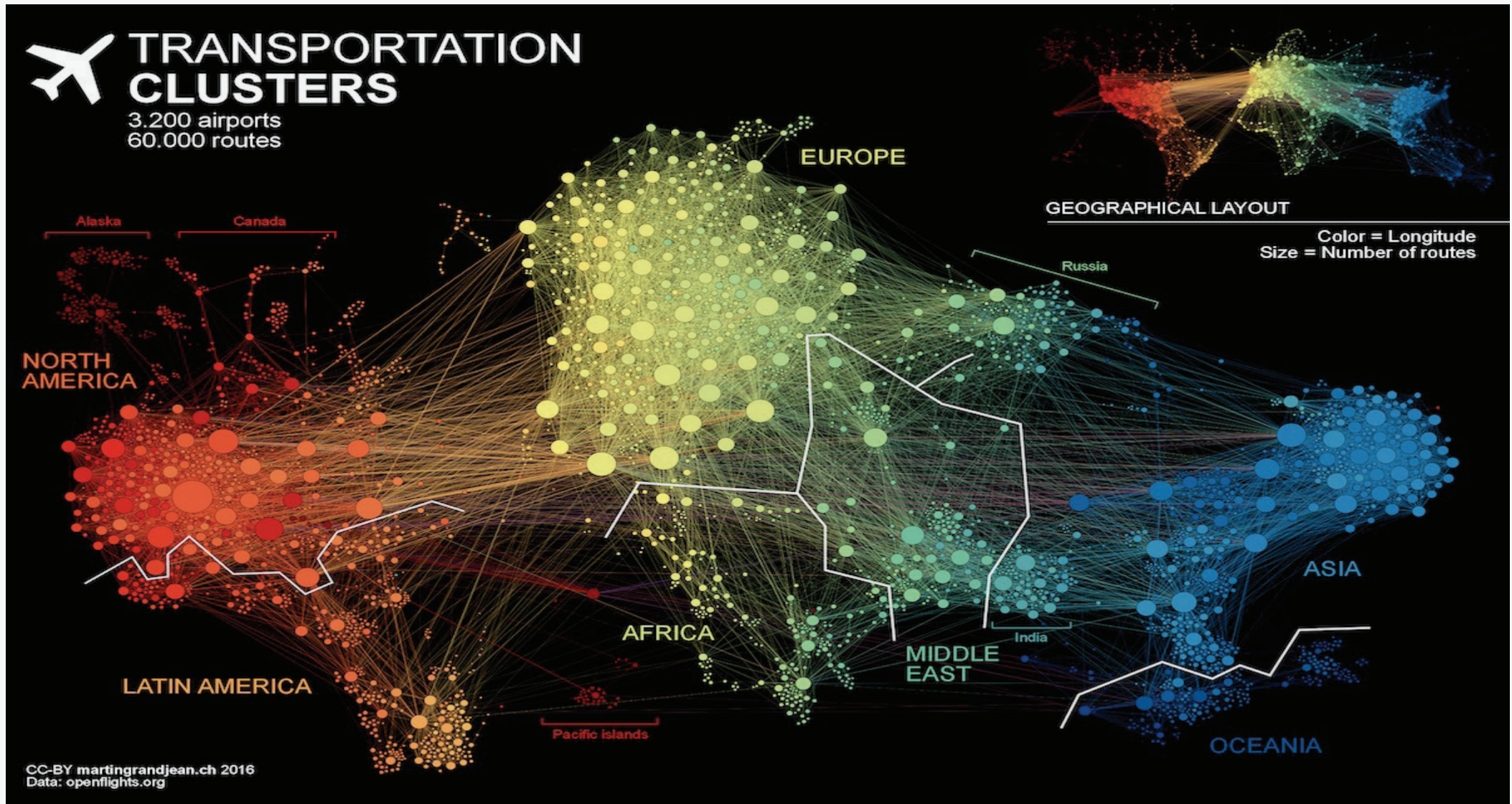


Figure 7 : World map of airline traffic density, 2019



Source : Retraitement IRES_ <http://cartonumerique.blogspot.com/2018/10/visualiser-les-flux-aeriens-openflights.html>

A SYSTEMIC CRISIS

Regardless of subsequent events, the first two months of the first lockdown, referred to as the Great Lockdown, led to a major global systemic crisis. What was this crisis about and what made it possible ?

Health crisis

- ▶ A health crisis occurred in almost every country, of which there were three distinct signs :
 - ❖ Overloaded hospitals, shortage of equipment (masks, respirators, disinfectants) and the lack of nursing staff (both regular and reserve staff).
 - ❖ Management procedures deemed unacceptable from a moral standpoint: choice between patients to be treated and those to be left to die; isolation of dying patients who could not see their loved ones; lack of communication with the families; burials in mass graves ...
 - ❖ Excess mortality among the elderly, both at places of residence and in retirement homes, which cast a gloomy light on care for the elderly.

Box1 : Definitions

The word “crisis” is a polysemous term. Hence, it is important, in this context, to give it the definition below, which combines medical as well as sociological aspects.

A crisis is a situation:

- ▶ characterized by:
 - ❖ a set of “pathological” phenomena (comparable to disruptions),
 - ❖ which appear in a sudden, intense manner for a limited period,
 - ❖ causing deep disturbance in society, social groups or among individuals.
- ▶ causing fear or hope for thorough change or transformations involving more or less violent consequences.

A crisis is **systemic** when it affects all structural, interdependent elements that, together, form a system.

Alternative definition (from scientific literature): A crisis can be defined as a situation :

- ▶ Involving a serious threat to the basic structures or the fundamental values and norms of a social system and calling into question its priority objectives,
- ▶ whose occurrence takes decision-makers by surprise and which, under time pressure and highly uncertain circumstances, necessitates making critical decisions (11)

We speak of a trans-boundary crisis when the functioning of multiple, life-sustaining systems, functions, or infrastructures is acutely threatened and the causes of failure or courses of rectification remain unclear (12).

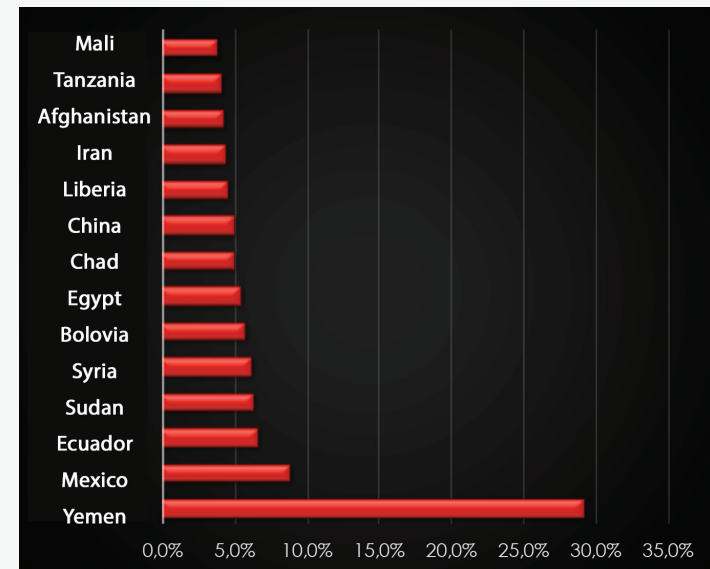
A SYSTEMIC CRISIS (2)

▶ Among the reasons given for the crisis, many critics, both in the North and the South, have mentioned the following :

- ❖ **under-sized hospital systems**: these systems are calibrated to operate at tight cruising speed (excluding major events); financial resources rarely allow for more staff and equipment,
- ❖ **“cheap-rate” health policies**, producing two-tier (United States) or worn-out (United Kingdom) health systems in developed countries, and even totally non-existent health systems in the poorest countries,
- ❖ **delegating the care for the elderly** to overwhelmed associations and establishments that are under-equipped and not professional,
- ❖ **loss or lack of sovereignty in health-related matters**, with states increasingly securing supplies from abroad (medical equipment, pharmaceutical products) - and just-in-time management of health products which led to shortages,
- ❖ **shortcomings in “health crisis management”**, which:
 - did not make it possible to use all the resources that could be mobilized, be it private, military or associative means, health professionals and the alternative manufacturing of masks or respirators,
 - delayed the implementation of the 3 pillars in the fight against the disease: isolation, testing and contact tracing.

▶ The ranking in Figure 8 lists the countries that suffered significant loss of life before the implementation of health measures, as well as those lacking adequate health infrastructure.

Figure 8 : The 15 countries with the highest COVID-19 fatality rates in the world, December 30, 2020



Source : IRES-processed, Johns Hopkins University, COVID-19 data

A SYSTEMIC CRISIS (3)

Economic crisis, known as the “Great Lockdown*” (13)

- ▶ The choice of a containment strategy (rather than the pursuit of herd immunity*) and border closures have led to the slowing down, even a total halt, of many economic activities, from tourism to commerce, from the manufacturing industry to services. Compulsive, panic-prompted behaviors created shortages, and the disruption of production and logistics sectors made it difficult to rebuild stocks. Thus, an unprecedented and unpredictable crisis took hold, its outcome being unforeseeable.
- ▶ An **unprecedented** economic crisis, because of:
 - ❖ its nature, coming on the heels of a health crisis,
 - ❖ the speed with which it occurred, under the combined effect of weak global growth in 2019 (2.5%) and the lightning speed of the pandemic’s spread,
 - ❖ its magnitude, which was greater than previous crises, according to the World Bank,
 - ❖ its unpredictability: under the combined effect of these factors, growth projections are still declining at an unprecedented rate, not seen since 1990, and there seems to be no end to the crisis in the absence of a cure or vaccines in sufficient quantity for the entire world population (13).

Box2 : The COVID-19 pandemic has led to a deep global recession

“The pandemic, and the aggressive restrictions and voluntary restraints on human interaction adopted to contain it, have already led to massive downturns in advanced economies, and to increasing disruptions in EMDEs (emerging markets and developing economies).*

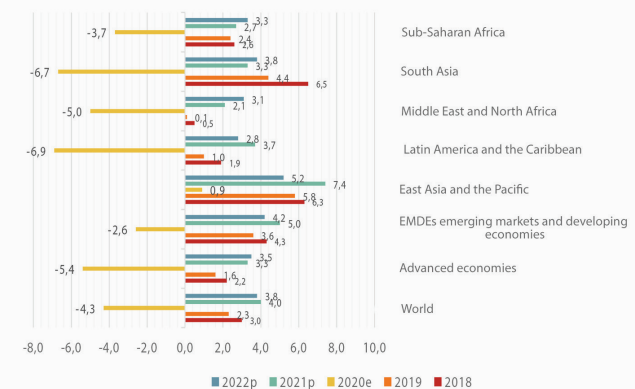
Global growth forecasts have been downgraded at an unusually rapid pace over the past three months. The uncertain course of the pandemic, in the absence thus far of effective vaccines or treatments, has caused extraordinary economic uncertainty, including about the possible depth and duration of the global recession, and about how different countries will be affected”.

World Bank, Global Economic Prospects, June 2020

A SYSTEMIC CRISIS (4)

- ▶ A **double shock** : affecting supply as well as demand, along with a severe contraction in investment.
 - ❖ The shock, on the supply side, is characterized by a significant drop in production, which is the result of supply difficulties inherent in the closure of borders, in the lockdown imposed on the workforce and reduction in service provision (aid to individuals, self-employed...).
- ▶ The demand shock reflects the fall in external demand (fall in exports, halt in tourist activities) and the collapse in domestic consumption (closure of non-essential businesses, reduction in activities involving human contact, reduced mobility).
- ▶ Short-term impact - a **severe recession** - concerns economies relying mostly on tourism and global value chains. Conversely, the less integrated regions are the least affected by the economic crisis, such as sub-Saharan Africa.

Figure 9 : Global economic prospects



Source : IRES-processed, World Bank data (Global Economic Prospects, January 2021)

A SYSTEMIC CRISIS (5)

► The medium and long-term consequences for the **world economy** (14), in an environment characterized by trade tensions between China and the United States, by a global recession and growing risk aversion, depend to a large extent on:

- ❖ **a possible change of existing production networks** (global value chains): a relocation would have a significantly negative impact on emerging markets and on developing economies that are already integrated into global value chains, whereas greater geographic diversification of supply chains could constitute an opportunity for less well integrated regions (Middle East and North Africa, Latin and Central America, sub-Saharan Africa), to carry out structural reforms that would facilitate greater integration into global value chains;
- ❖ the institution of **trade restrictions** as part of protectionist policies: this would lead to shortages of goods, technologies and skills, as well as to greater poverty, to the reduction of which the global value chains had contributed;
- ❖ the extent and duration of the decline in **foreign direct investment*** as well as the possible change of their destination, which would mostly affect emerging markets and developing economies.

► The lasting effects are as follows:

- ❖ Declining **standards of living**, including in advanced economies, due to rising unemployment, possible shortages of goods, continued high prices and reduced social transfers (especially intra-family transfers).
- ❖ **Poverty** : decrease in per capita income expected in all emerging/developing regions in 2020, pushing millions of people into poverty.
- ❖ **Change in global value chains** : relocation of strategic production sectors, diversification of supply chains, increased risk for developing economies to be shut out of global trade.
- ❖ Disruption of **agri-food** supply chains: food insecurity, famines, health risks and social movements resulting from the lack of fertilizers and seeds, and difficulties in selling agricultural products.

A SYSTEMIC CRISIS (6)

A political crisis

- ▶ The sudden outbreak and spread of the pandemic and the failure to anticipate it led to a **lack of preparedness** for the crisis that followed.
 - ❖ Some governments hastily made harsh decisions, such as non-repatriation of their nationals before full border shutdown.
 - ❖ Others, regarded as reckless, were slow to acquire the necessary medical supplies, such as masks and respirators.
 - ❖ Still others, deemed irresponsible, refused to see the pandemic for what it was.
 - ❖ Finally, others, deemed unadventurous, took health care measures that may have seemed disproportionate given the fatality rate of the virus and the economic degradation caused by those measures.
- ▶ Regardless of whether they were appropriate or not, those decisions, combined with the dysfunctions observed in the management of the crisis, led to major **splits** in public opinion, but above all to across-the-board **dissatisfaction**, which amplified and exceeded that of 2019 (see below).
- ▶ Ineffectiveness of the United Nations: this organization's call for a ceasefire during the pandemic was heeded by none of the main belligerents in the world. The Security Council failed to pass a resolution to respond to the crisis. The criticisms leveled at the World Health Organization regarding its management of the pandemic also highlighted the limitations of the UN system (15).
- ▶ During the 2008-2010 global crisis, the leaders of influential countries sought to come up with a unified response to curb the impact of the mess; this time countries clearly demonstrated their disunity, as shown by the lack of consultation and coordination, even by "rogue behavior" regarding the acquisition of surgical masks (16).
 - ❖ The COVID-19 crisis was a catalyst for pre-existing antagonisms between states; it also consolidated existing coalitions. It confirmed the rivalry between the United States and its allies in Southeast Asia, on the one hand, and China, on the other. The latter was criticized for its enigmatic handling of the first months of the epidemic. Thanks to a swift recovery, China seized the opportunity of the crisis to shore up ties with its partners.
 - ❖ Conversely, the European Union, despite marked differences between its member states, found in the misfortune brought about by the COVID-19 crisis a new rallying momentum which led to the adoption, in July 2020, of a recovery plan for Europe, including a pooling of debt as well as subsidies to the hardest-hit states, to the tune of €390 billion* (17).
- ▶ Given government shortcomings, new, non-political actors are emerging and are wielding significant soft power, such as the Gates Foundation, a major international player in the field of health, as well as donors to the ACT Accelerator (Access to COVID-19 Tools), the platform launched to accelerate access to tools to fight COVID-19 (18).

A SYSTEMIC CRISIS (7)

A social crisis indiscriminately affecting **the entire planet**,

- ▶ 22 million additional unemployed people were registered in the United States in a single month (19); the number of British citizens who admitted going hungry has quadrupled in the first three weeks of the lockdown.
- ▶ **Economic distancing** (tight borders, diversion of basic necessities, restored customs barriers) contributes as much as social distancing (lower consumption) to the impoverishment of populations that are already vulnerable, in particular women, young people and indigenous peoples (in the countries of the South), migrants and the elderly (in the North).
- ▶ Regardless of the country concerned, two new trends have emerged, fueling an increase in demand for food aid :
 - ❖ The **vulnerability** of segments of the populations that were not suffering from precariousness: temporary workers, retirees, self-employed, traders...
 - ❖ A **diversification** of population segments in need: unemployed, poor working people, people in situations of serious exclusion, students, etc.

- ▶ At the same time, **health conditions unrelated to COVID-19** are worsening because patients are afraid of being infected in hospitals; this led to a lack of healthcare services causing, in particular, a spike in infant and maternal mortality.
- ▶ The surge in **unemployment** figures in all sectors of the economy, despite the support plans put in place to avoid mass bankruptcies, and the resulting increase in **poverty** are causing systemic knock-on effects :
 - ❖ Risks of abuse and exploitation of girls and boys higher than ever (United Nations Children's Fund).
 - ❖ Resurgence of domestic violence.
 - ❖ Reduced life expectancy.
 - ❖ Development of chronic diseases and overall deterioration of health conditions.
 - ❖ Increase in suicides and alcohol and drug use.
 - ❖ Increased dropout and deterioration in the overall level of education.
 - ❖ Increased marginalization (homeless, refugees, migrants, displaced persons,...).

Magnitude of the global social crisis

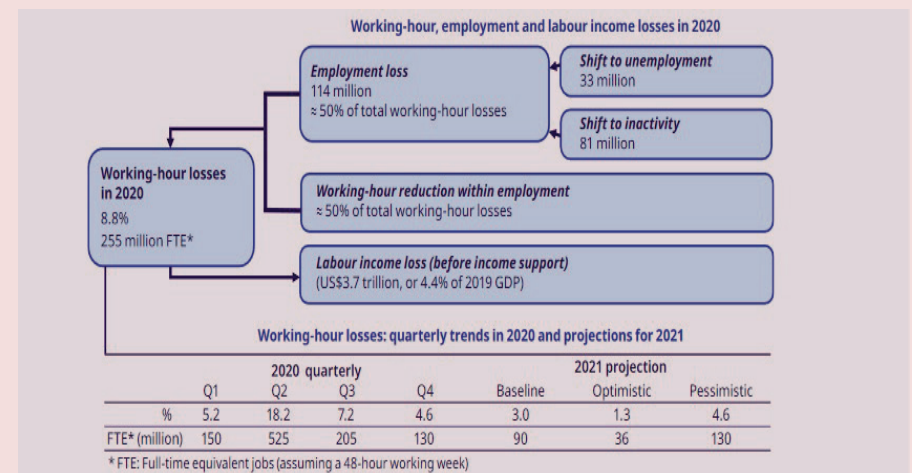
A considerable impact on the global labor market...

- ▶ The International Labor Organization (ILO) revealed that in 2020 there were unprecedented global employment losses, reaching 114 million jobs, as compared to 2019 (20). Job losses were higher in America, and less significant in Europe and Central Asia, since those regions put in place specific measures to preserve jobs.
- ▶ According to the same source, employment losses in 2020 translated mainly into rising inactivity rather than unemployment (20).
 - ❖ Accounting for 71 per cent of global employment losses, inactivity increased by 81 million people, which resulted in a reduction of the global labor force by 2.2 percentage points
 - ❖ As for unemployment, it increased by 33 million in 2020, with the unemployment rate increasing by 1.1 percentage points to reach 6.5 per cent.

... with losses in labor income

- ▶ According to ILO estimates, in addition to pulling wages down, the health crisis led to a decline of 8.3 percent of global labor income (before taking into account income support measures), which represents 4.4 percent of global GDP (20).

Figure 10 : Estimates of the working hours, employment and labor income lost in 2020, and projections for 2021



Source : International Labor Organization

- ▶ Moreover, ILO has warned (21) against the emergence of a migrant crisis during the COVID-19 pandemic. Indeed, migrants represent 4.7% of the global workforce, or nearly 164 million migrant workers. Most migrant workers suffered a job loss during the great lockdown, finding themselves stranded in host countries; they were sometimes deprived of social protection and of any means to get food or shelter.

Magnitude of the global social crisis (2)

Risk of growing poverty in the world

- ▶ According to the various projections of the World Bank concerning economic growth (22) :
 - ❖ 71 million people are likely to fall into extreme poverty in 2020 (measured using the poverty line of \$1.90/day), assuming a contraction of global growth by about 5%,
 - ❖ because of the health crisis, 176 million people could fall into poverty (at the \$3.20/day poverty line) and 177 million people living on 3.2 and 5 dollars a day.

A dominance of informality

- ▶ The informal sector represents, on average, a third of the gross net product of emerging markets and developing economies, and accounts for 61% of total jobs in the world (23).
- ▶ In Africa, the informal sector accounts for 85.8% of total employment (23).
- ▶ In Morocco, the share of informal employment in total jobs is around 80% according to ILO estimates (3). According to the High Commissioner for Planning, the contribution of the informal sector to total non-agricultural employment was 36.2% in 2013-2014 (24).

Expansion of the inequality “virus”

- ▶ According to Oxfam International, the COVID-19 crisis has significantly increased inequality between rich and poor in 2020. It took rich countries an average of nine months to recover from the health crisis and most came out stronger. As for the poorest countries, they have sunk a little further and it will take them ten years on average, according to Oxfam, to free themselves from the impacts of the health crisis (25).

Figure 11 : Main findings from Oxfam's survey of economists on the impact of the Coronavirus pandemic on inequality (79 countries)



Source : Oxfam's survey of economists on the impact of the coronavirus pandemic on inequality, P. Espinoza Revollo. (2021). The Inequality Virus: Methodology note. Oxfam

Magnitude of the global social crisis (3)

Severely affected economic sectors

- ▶ Global tourism: considered one of the most important economic sectors in the world, supporting 1 in 10 jobs worldwide (26), tourism has been paralyzed by the COVID-19 pandemic. According to the World Tourism Organization, the number of international tourists was down by 74% in 2020 as compared to 2019. That represents a loss of approximately 1 billion tourists.

This decline, the largest in at least 30 years, resulted in a drop in international tourism revenues between 2019 and 2020 of nearly \$1.3 trillion, or more than 11 times the loss recorded by the tourist sector in 2009 following the global economic crisis (27).

- ❖ In terms of employment, the decline in tourist activities could, according to estimates by the World Tourism Organization, wipe out between 100 and 120 million jobs worldwide (27).

- ▶ Air transport : According to the International Air Transport Association, international passenger air traffic collapsed by almost 66% in 2020 relative to 2019 (28). Thus, it will take the sector several years to regain its cruising level. Similarly, foreign and domestic demand was down 75.6% and 48.8% respectively between 2019 and 2020.

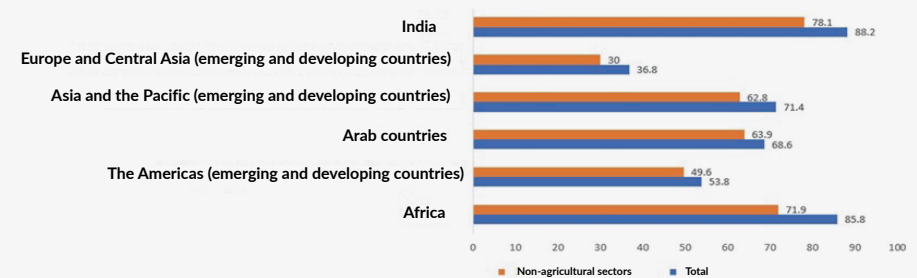
As for the sector's turnover, it is down by 60%, that is a loss of nearly \$120 billion (28), As a consequence, 25 million jobs have been lost according to the International Air Transport Association (29).

A SYSTEMIC CRISIS (8)

- ▶ An unexpected impact on **fertility** : while the pandemic seems to have contributed to the demographic slowdown in developed countries, as concerned couples hesitate to procreate, population growth - the consequence of lockdown measures and of limited access to contraception and termination of pregnancy - has been observed among the most vulnerable populations, as in Indonesia for example. (30).
- ▶ Studies have shown that some developing countries have experienced an increase in their birth rate. This increase is due to disruptions in the production and distribution of contraceptive methods around the world (31). According to an estimate by the Guttmacher Institute (32), if contraceptive use in the most vulnerable countries declined by 10%, these countries could find themselves with an additional 15 million unplanned pregnancies. Furthermore, a study by the United Nations Population Fund, suggests that an additional 214,000 babies could be born next year as a result of unplanned pregnancies
- ▶ Given the explosion in food aid needs, humanitarian organizations were no longer sufficient (soup kitchens, food banks). There was a need for **direct human solidarity** (food baskets hanging from balconies in Italy, free meals provided by restaurants and individuals).

- ▶ Nevertheless, the most critical situation is that of the **informal sector*** (61% of the global working population is informally employed). Indeed :
 - ❖ partial and total lockdown measures have had a significant impact on 1.6 billion informal workers (with a disproportionate number of women in the hardest-hit sectors),
 - ❖ this has led to an average loss of 60% of their income worldwide - 81% in Africa and Latin America - and a 34% increase in the rate of relative poverty (33),
 - ❖ this raises, once again, the issue of their social protection and that of formally employed workers in the gig economy* (34).

Figure 12 : Share of informal employment, by country and region, 2018



Source : Women and Men in the Informal Economy: A Statistical Picture, Geneva: International Labor Organization, 2018.

A SYSTEMIC CRISIS (9)

A human crisis

- ▶ This crisis is twofold: it has a human dimension, as far as the psychological effects are concerned, and a societal one, given the related collective attitudes.
- ▶ Not everyone lived the lockdown the same way. For some, time has stretched out and slowed down. For others, it has contracted and accelerated. For some, the lockdown meant withdrawal, retreat and rejection; for others, it stood for support, advancement and change.
- ▶ This differentiated perception was compounded by three major stress factors :
 - ❖ **Deprivation of direct social relationships**: separation from relatives, social isolation and loneliness can lead to higher fatality rates, depression and cognitive decline (35).
 - ❖ The **fear** of being infected, even of dying, and the uncertainty of what is to come (possible impact of the crisis on employment, income, children's education, family relations, etc.), have led to extreme attitudes (resignations, moving, survivalism, denial).
 - ❖ **Living conditions**: unemployment, alcohol abuse, economic hardship, domestic violence and indebtedness for the most vulnerable; relational tensions (hence the wave of divorces) and the particular impact of **deaths**: mourning the loss of relatives is difficult because of isolation

... and a societal one

- ▶ These deteriorated psychological situations have led to a real mental health crisis which has spared no continent and no social category :
 - ❖ A significant increase in distress and mental disorders reported in India, Ethiopia, Iran, the United States, Europe... affecting children and teenagers as well (36).
 - ❖ An explosion of requests for online psychological support (Canada, for caregivers, Ireland, Turkey, etc.).
 - ❖ Given the scale of the problem, the vast majority of mental health needs remain unmet.
- ▶ Against this backdrop of more or less rational tensions, different worldviews have crystallized around sharp splits :
 - ❖ A political divide: a strong aspiration for radical change versus equally strong resistance, reflected by calls for nationalism, protectionism and de-globalization.
 - ❖ A human split regarding the values of sharing (solidarity, volunteering) versus reactions driven by racism and xenophobia and fueled by conspiracy theories and by fear of the other (the foreigner, the contaminator).
 - ❖ A divide based on beliefs: "the all-powerful science will save us" versus "Nature taking revenge" or "God is punishing us".

A SYSTEMIC CRISIS (10)

To sum up

- ▶ The COVID-19 pandemic was the **catalyst** of a crisis whose signs were already there. It has **exposed** the inadequacies and limits of public policies, be it in terms of health and social coverage, or strong economic dependence (critical products).
- ▶ The virus has strongly impacted globalization, revealing China's disproportionate weight in international trade and urging states to focus on their economic strengths and reduce their dependence as much as possible (37).
- ▶ The political and social crises have helped fuel a general sense of dissatisfaction that had already been strongly expressed in 2019 and has not yet reached its full potential.
- ▶ The prospect of more economic 'deaths' than physical ones points to the absolute necessity for states to effectively support their economies and opt for comprehensive, universal social protection systems.

A way out of the crisis ?

- ▶ If the great lockdown is the catalyst for this multi-faceted crisis, the recent emergence of three variants of COVID-19, in the United Kingdom, Brazil and South Africa* augurs protraction of the crisis situation. Only mass vaccination or the discovery of an effective cure would allow a return to "normal" activities, provided the successive mutations of the virus do not make it resistant to these vaccines or to future treatments.
- ▶ In addition, the vaccine has turned into a geopolitical issue. Whereas some developed countries have started large-scale vaccination campaigns, at the end of February 2021 many African countries were yet to receive the vaccines needed to immunize their citizens. Countries like China and India are using the vaccine as a tool of soft power. China has thus supplied vaccines, first, to its trading partners, such as Indonesia (400 million doses), Brazil and Egypt.
- ▶ Either way, and regardless of these contingencies, it will take certain sectors (aviation, tourism, etc.) several years to return to the situation they were in at the end of 2019, given the global recession.

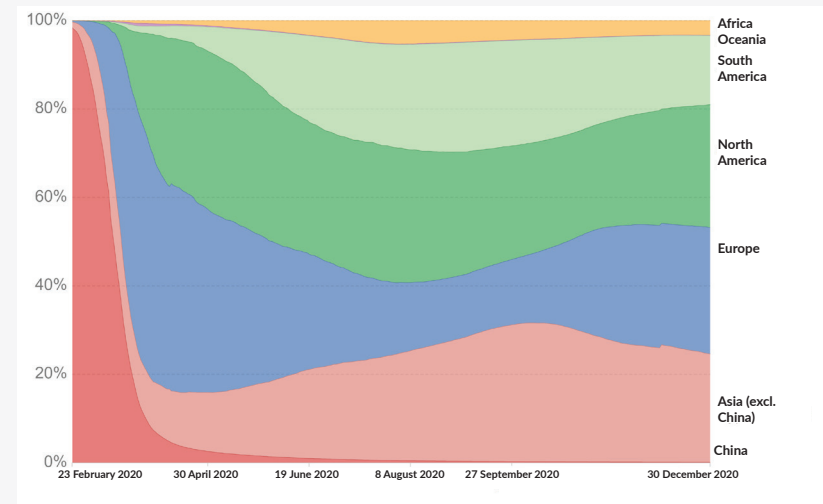
T

HE COVID-19 PANDEMIC IN AFRICA

At first glance, Africa seems to be only moderately affected by the COVID-19 pandemic

- ▶ With nearly 17% of the world's population, Africa accounts only for 3.3% of infections and a case fatality rate of 2.3%. On 30th December 2020, the continent had 2,728,748 coronavirus cases and 64,769 deaths (39). Nevertheless, these figures need to be put into perspective due to:
 - ❖ the local context: limited integration into globalization, young population, cross-immune response resulting from frequent exposure to other viruses, lower prevalence of serious pathologies (cardiovascular diseases, diabetes, etc.) as compared to other parts of the world...
 - ❖ centralized health systems that are seldom accessed by populations living in rural areas and slums, belated diagnosis of the disease, unreported deaths, limited availability of tests.
- ▶ Whatever the actual number of infected people, the impacts of the pandemic on the African continent are particularly severe.

Figure 13 : Evolution of the distribution of confirmed COVID-19 cases by region (en %)



Source : IRES-processed data, Johns Hopkins University (CSSE)

- ▶ **On the economic level**, the health crisis is believed to have slowed down economic growth in Africa by 3.4% between 2019 and 2020, according to estimates by the African Development Bank, causing the most severe recession in at least one quarter of a century (41).

While one part of Africa is already charting its future (See: On the move n° 3 and 4), another part is struggling with the present. As previously pointed out in an IRES analysis, the African countries most severely affected are those with rent-seeking economies based on exploitation of natural resources (metals, hydrocarbons) and tourism-dependent economies (Mauritius, Seychelles, Cape Verde). In countries with more diversified economies, growth is expected to continue but at a slower pace.

The economic impact of the health crisis in Africa is partly determined by 3 levels of dependency (42):

- ❖ trade with China, Europe and the United States: the countries most affected are, in descending order: Libya, Tunisia, Congo, Seychelles, Mauritania, Morocco, Equatorial Guinea, Gabon, Cape Verde, Algeria, Togo, Guinea,
- ❖ tourism (which accounts for more than 8.5% of the continent's GDP): the countries most dependent on tourism in Africa are: Cape Verde, Comoros, Seychelles, the Gambia, Ethiopia, Mauritius, Rwanda, Morocco, Liberia, Tanzania, Uganda, Madagascar, Egypt, Kenya, Tunisia,
- ❖ remittances from the diaspora: the countries concerned the most are: Ghana, Morocco, Egypt, Guinea-Bissau, Zimbabwe, Togo, Senegal, Cape Verde, the Gambia, Comoros, Liberia.

The economic recession is presumably caused by exogenous factors: slowdown in the economic activity of the main partners, drop in foreign direct investment, declining demand for basic products from Africa, near-total collapse of certain activities linked to tourism and air transport...

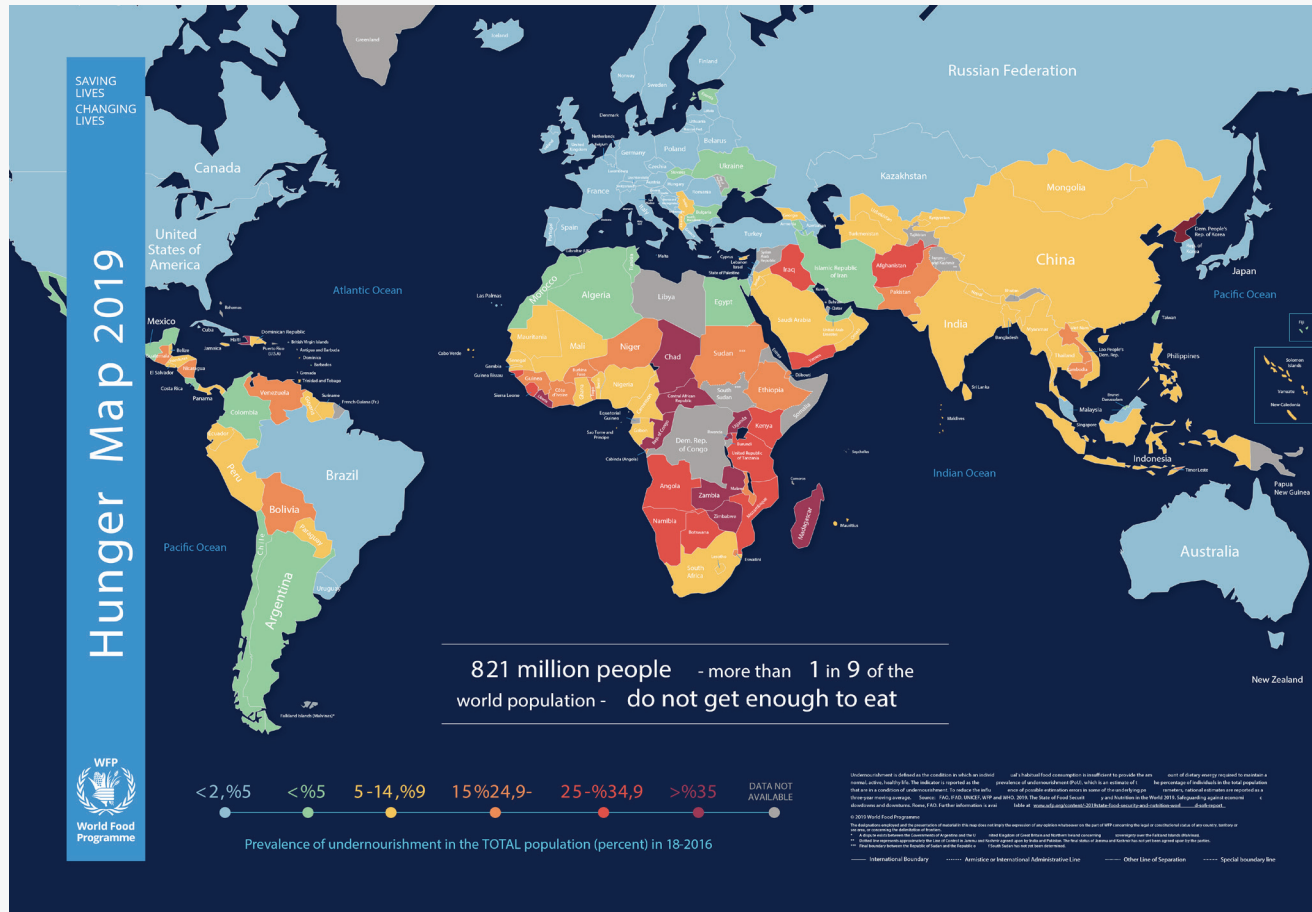
- ❖ Even before COVID-19 had gained a firm foothold on the continent, African countries started feeling the economic impact of the decline in global demand for oil, gas and basic commodities. The result was a 10% drop in labor income in Africa as compared to 2019, according to the International Labor Organization's 2020 estimates, and a loss equivalent to 29 million full-time jobs (42).
- ❖ Remittances from the diaspora to sub-Saharan Africa, admittedly an important source of income for the continent, are expected to decline, according to the World Bank, by 23%, going from US\$48 billion in 2019 to US\$37 billion in 2020 (43).
- ❖ Most African countries will come out of the COVID-19 crisis with significant budget deficits, which may increase, on average, by 3.5 percentage points of GDP between 2019 and 2020. As a result, the debt burden could increase by up to 10 percentage points of GDP. The sovereign debt accumulation, in particular, is worrying given the evolution of its risk structure in Africa. (42).

At a time when the key determinants of growth were improving thanks, in particular, to investment (44), the devastating economic situation means the continent is helpless vis-à-vis donor / lender countries, even as a groundswell of public opinion is denouncing colonization, which is no longer territorial, but also intellectual, affecting such fields as medicine, the economy and African politics (43).

T HE COVID-19 PANDEMIC IN AFRICA (4)

- ▶ **On the social front**, the halt of economic and commercial activities, following the lockdown measures, could push 40 million Africans into extreme poverty (less than \$1.90 per day) by the end of 2021, in particular those working in the informal sector, wiping out at least five years of progress in the fight against this scourge (42).
 - ❖ The reduction or loss of stable income for sub-Saharan households - corresponding to a decline of 6%, on average, in gross domestic product per capita, negating almost fifteen years of income growth (41) - will have an adverse impact both on the informal sector (89% of total employment) and on the middle class. Manifestations of popular discontent have already occurred in several countries (South Africa, Ghana, Kenya, Nigeria).
 - ❖ Similarly, the health crisis could slow down the progress made in building human capital. Thus, the school closures could affect nearly 253 million students, potentially leading to learning loss (41).
- ▶ **Hunger: more dangerous than the coronavirus**
 - ❖ The significant rainfall deficit that has affected southern Africa in the last five years, together with severe cyclones and an increase in temperatures at a rate twice that of the planet, have led the United Nations to announce, as early as January 2020, that a record 45 million people are threatened by the scourge of famine in that part of the continent (44). That figure comes on top of approximately 250 million Africans who already suffer from chronic hunger (6) and the inhabitants of the Horn of Africa, whose crops have been ravaged by an unprecedented invasion of locusts in the first semester of 2020 (45).
 - ❖ The continent's overall food security is all the more compromised as sub-Saharan countries are almost all dependent on food imports. However, the wheat market is particularly constrained, as Egypt and Algeria have placed bigger orders than usual, fearing shortages, and Russia - one of the main wheat producers - has stopped exports to feed its population first. (46).

Figure 15 : 2019 Hunger Map

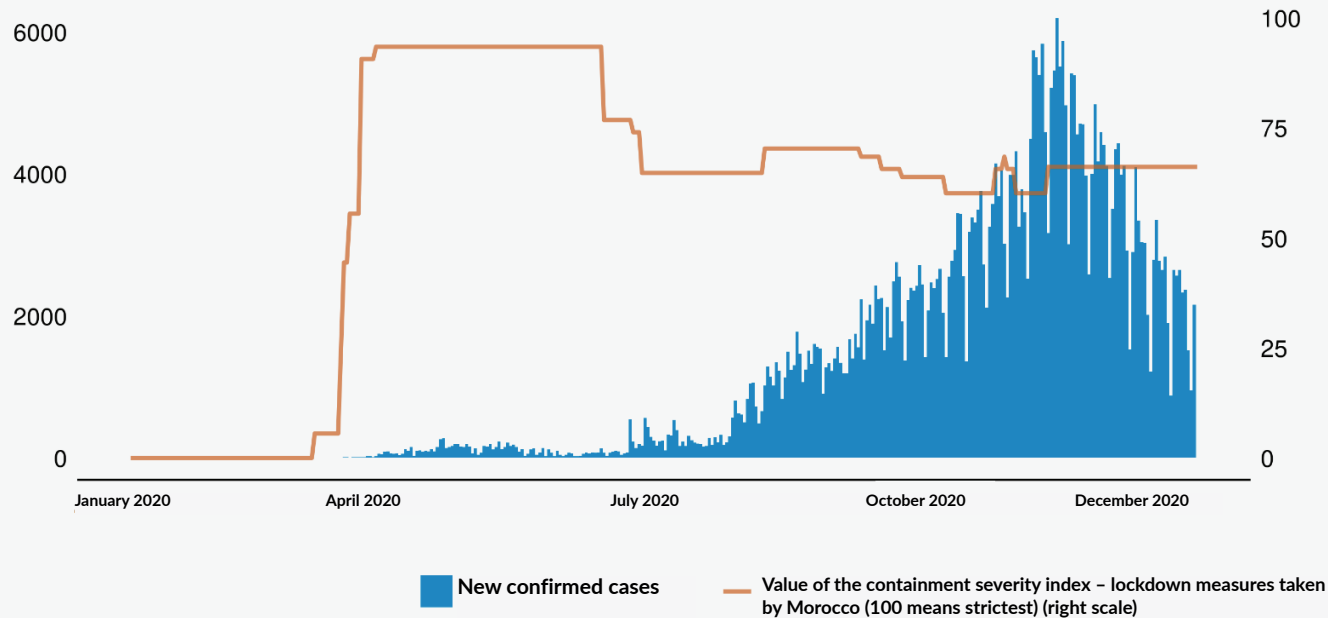


Source : World Food Programme 2019 - Hunger Map | World Food Programme (wfp.org)

I MPACTS OF THE HEALTH CRISIS IN MOROCCO

Morocco was one of the first countries in the world to have instituted strict lockdown measures for the population. This made it possible to slow the spread of the virus and achieve one of the lowest case fatality rates in the world (1.7%). However, the health crisis has had many effects on the Moroccan economy and society.

Figure 16 : Impact of the lockdown measures taken by Morocco on the spread of COVID-19



Source : IRES- processed Johns Hopkins University data, Oxford COVID-19 Government Response Tracker

Covid-19 in Morocco *

Figure 17 : General national statistics *

Number of confirmed cases	437 332
Recovered/Discharged	405 251
Number of deaths	7335
Average age of infected individuals	35 ans
Incidence rate (/1 000 000 inhabitants)	11 848
Recovery rate (%)	92,7%
Mortality rate (/1 000 000 inhabitants)	199
Fatality rate (%)	1,7%

Mortality rate /1 000 000 inhabitants

World average

231

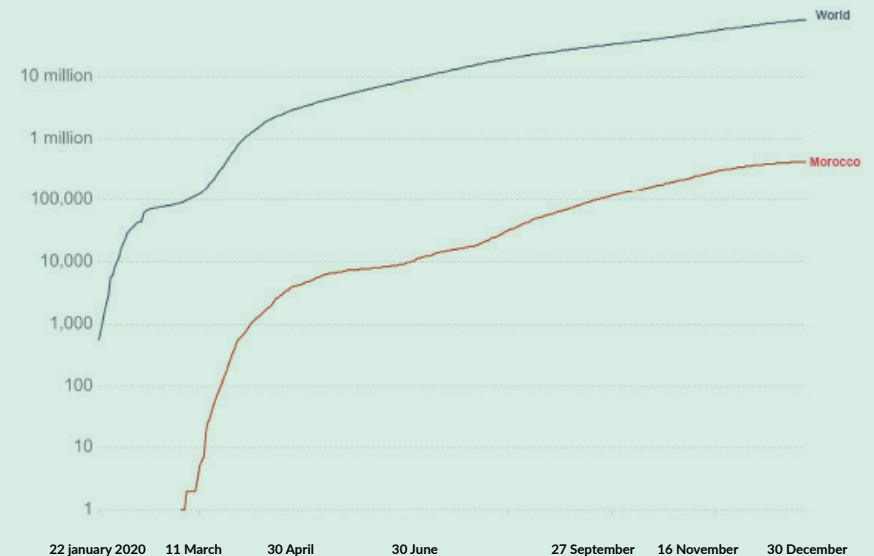
Fatality rate (Death/years)

World average

2,2%

(*) December 30, 2020

Figure 18 : Evolution of COVID-19 infections in Morocco and the world (logarithmic scale)



Source : IRES-processed, Johns Hopkins University data

IMPACTS OF THE HEALTH CRISIS IN MOROCCO (2)

A significant human and social cost resulting in:

▶ A decline in household income

- ❖ A significant part of the Moroccan population has been condemned to unemployment, left without income or other means of subsistence. This has led to a sharp increase in poverty and precariousness (see below). According to the survey (47), carried out by the High Commissioner for Planning from 14 to 23 April 2020 to see how household lifestyle adapts to the constraints of the lockdown, 34% of households (33% in cities and 35% in rural areas) claimed to have no source of income due to stoppage of their activities under the lockdown (see slide 43). More specifically, 44% of poor households were affected by the lack of sources of income during the first month of the lockdown.

▶ A rise in the incidence of poverty

- ❖ Morocco had achieved a significant reduction in income poverty, bringing it down from 15.3% in 2001 to 4.8% in 2014; the incidence of poverty following the effects of the health crisis could stand at 6.6% in 2020 (poverty line of \$3.2 / day), according to the World Bank (48).
- ❖ According to the High Commissioner for Planning (3), the proportion of people vulnerable to poverty, i.e. individuals whose consumption level is between \$3.2 and \$4.8 per day, could reach 19.9% in 2020, against 17.1% in 2019 (48).

▶ Reduced access to health care for people with chronic diseases

- ❖ The COVID-induced lockdown has hampered access to health care, in particular, for the following segments of the population: for 30% of households with one or more members suffering from chronic diseases, almost half did not have access to health care : 46% in urban areas and 53% in rural areas (47).

▶ Deterioration in mental health

- ❖ For half the households, anxiety was the main psychological effect of the lockdown, followed by fear, felt by 41% of households, especially among female-headed households (47%) (47).
- ❖ Nearly 55% of households reported a feeling of claustrophobia or an increase in phobias. A further 8% of households reported other psychological disorders, such as hypersensitivity, nervousness and fatigue (47).

▶ Deterioration in family relationships

- ❖ Almost one in five Moroccan households reported having experienced a deterioration in family relations (47).
- ❖ The inter-generational divide has deepened (49), due to social distancing and the separation of grandchildren from their grandparents.

IMPACTS OF THE HEALTH CRISIS IN MOROCCO (3)

A damaging crisis for the Moroccan economy due to the following :

- ▶ **An economic recession: the most severe in at least two decades** : like practically all countries, Morocco suffered an unprecedented economic shock in 2020 due to the containment measures taken to stem the spread of COVID-19.
 - ❖ According to the Minister of Economy, Finance and Administration Reform, each day under the lockdown costed the Kingdom one billion dirhams, or 1% of Moroccan GDP for every ten days. This cost includes the loss in earning due to the decline in the production system, but does not include the cost of cessation of activities or that of the physical and psychological pathologies affecting citizens.
 - ❖ Combined with two successive years of drought, the health crisis is likely to lead to a 7% decline in GDP in 2020 according to the High Commissioner for Planning (50). Household consumption contributed to negative growth of the economy, leading to an unprecedented contraction of nearly 9.4% in 2020, the first since 1997 (50).

Figure 19 : Change in value added by sector and inflation rate (%)

	2019	2020 (P)
Primary sector	-4,6%	-7,1%
Secondary sector	3,5%	-6,3%
Tertiary sector	3,8%	-6,8%
GDP	2,50%	-7%
Inflation	1,3%	-0,1%

Source : High Commissioner for Planning (56)

Figure 20 : Change in savings and investment as % of GDP

	2019	2020
Domestic savings	23,3%	21,7%
National savings	27,8%	26,9%
Gross investment	32,2%	29,2%

Source : High Commissioner for Planning (56)

▶ Loss of activity in some key economic sectors

- ❖ Tourism: this sector has been severely affected by the health crisis. According to the Foreign Exchange Office, travel receipts, which are the main component of service exports, were down nearly 54% between 2019 and 2020 (51). Moreover, tourist arrivals fell by nearly 79% during the first 11 months of 2020, compared to the same period in 2019 (52).
- ❖ Air transport: with 7,150,277 passengers in 2020 against 25,075,095 passengers in 2019, international commercial air traffic witnessed the most significant decline (nearly 72%) in at least a quarter century, according to the National Airports Authority (ONDA). As for domestic air travel, it declined by nearly 52% (53).
 - According to estimates by the International Air Transport Association, the sector's potential loss of income in Morocco in 2020 stands at about \$1.3 billion.

IMPACTS OF THE HEALTH CRISIS IN MOROCCO (4)

► A worsening of the budget deficit and, consequently, of the Public Treasury debt

- ❖ Tax revenue, which was severely impacted by the economic recession, fell by the equivalent of 2.4% of GDP. Following the measures taken through the amended Finance Law, the budget deficit is likely to stand at 7.5% of GDP in 2020 against the 3.5% initially predicted. The logical consequence of this deficit is the increase in the ratio of the direct Treasury debt (excluding secured debt), which should be around 77% of GDP in 2020, up 12 percentage points as compared to the 2019 level, according to the Ministry of the Economy, Finance and Administration Reform.

► ... but a consolidation of external balances...

The impact of the crisis, on the external level, remains relatively limited. Indeed, according to the Foreign exchange office, the deficit in the trade in goods and services was of 7,7% of GDP by the end of 2020, which is significantly lower than 2019's deficit (-8,9%). Under these circumstances, and, according to Bank Al Maghrib, the current account deficit may have decreased, from 4,4% of GDP in 2019 to 1,8% in 2020.

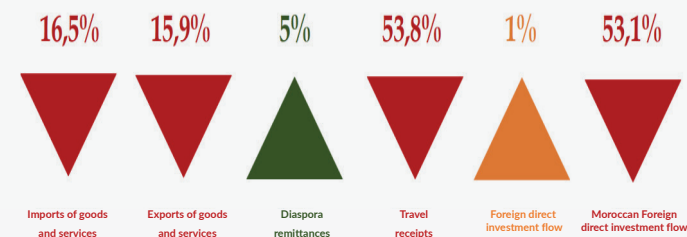
- ❖ Considering the mobilization of external financing by the Treasury and the drawing on the precautionary and liquidity line of the International Monetary Fund, official reserve assets represented, by the end of 2020, the equivalent of 7,5 months of imports of goods and services, against 5.4 months in 2019 (51),

- ❖ Having withstood the COVID-19 shock, remittances by Moroccans living abroad were up 5% in 2020 relative to 2019 (51).
- ❖ The net flow of foreign direct investment recorded a slight increase of 1% between 2019 and 2020 (51).

► ... despite a 13% drop in foreign demand in 2020

- ❖ Merchandise exports fell 7.5% between 2019 and 2020. The hardest-hit sectors are aeronautics (-28.9%), mining (excluding phosphates) (-19.6%), textiles and leather (-19.2%) and automotive (-9.3%) (51).

Figure 21 : Change in % of some key foreign trade indicators between 2019 and 2020



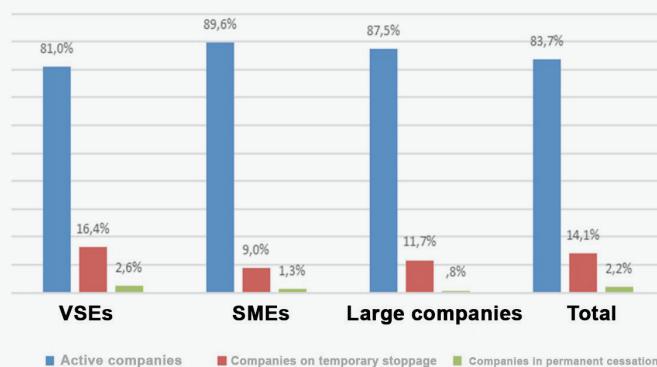
Source : Foreign Exchange Office

IMPACTS OF THE HEALTH CRISIS IN MOROCCO (5)

Direct repercussions of the crisis on the corporate sector...

- ▶ The survey on corporate activity during the second half of 2020, conducted by the High Commissioner for Planning (54), came up with the following findings :
 - ❖ 2.2% of companies were out of business for good at the end of 2020, and 14.1% are on temporary shutdown. Very small businesses were affected the most by permanent or temporary cessation of activities (54).
 - ❖ Almost 30% of companies operating in the field of transport, warehousing, accommodation and catering are still struggling to recover (54).
 - ❖ In addition, 10% of companies in the textile and leather industries and 7% of real estate companies are permanently closed (54).

Figure 22 : Breakdown of businesses by activity status and category



Source : High Commissioner for Planning

...having brought about a negative trend in labor market indicators

According to the findings of the same survey (61), nearly 38% of organized companies reported a decrease in their workforce during the second half of 2020 compared to the same period in 2019. For SMEs and VSEs, the proportion is around 34% and 40% respectively

- ❖ The reduction rate in the number of employees was more than 50% in half the VSEs that reported a diminished workforce.
- ▶ In 2020, the labor market saw the loss of 432,000 jobs against the creation of 165,000 new jobs in 2019. This loss affected all sectors of economic activity: loss of 107,000, 273,000, 37,000 and 9,000 jobs respectively in the service sectors, agriculture, forestry and fishing, industry (including crafts) and construction and public works. In this regard, the unemployment rate went up from 9.2% in 2019 to 11.9% in 2020 nationwide: from 12.9% to 15.8% in urban settings, and from 3.7% to 5,9% in rural areas (55).

... with unfavorable prospects for future investment

- ▶ The views of business leaders on investment have been influenced by the COVID-19 crisis: nearly four out of five companies are not considering any investment projects in 2021 (54).

K EEP IN MIND

- ▶ Since time immemorial, civilizations have had to deal with various epidemic outbreaks which often lasted for several years, claiming millions of lives.
- ▶ The magnitude of this major systemic crisis is due to a threefold phenomenon :
 - ❖ The fear of illness and of loss of one's assets/income because of uncertainty, isolation and the diffuse, tacit perception that a period of major change is coming.
 - ❖ The great lockdown for several weeks affecting a third of the world's population and the unpreparedness of decision-makers for events of such magnitude and unexpectedness.
 - ❖ The structure of global interdependence, which has exposed the disproportionate weight of China and the fragility of global value chains.
- ▶ On the political level, the COVID-19 pandemic could affect the transitions underway on the continent, cause an economic disaster, increase Africa's external debt and wipe out at least five years of progress in the fight against poverty.
- ▶ As regards Morocco, and despite a swift reaction to the pandemic, the human cost of the crisis is significant; its repercussions on key economic sectors and on public finances are severe, but its impact on external balances remains under control.



Source: <https://www.bbc.com/news/in-pictures-52127945>

A faint, light gray background graphic of a hand holding a seedling, positioned behind the text.

CHAPTER 2

SEEDS OF CHANGE

T

HE ISSUE AT STAKE

The systemic crisis generated by the COVID-19 pandemic is, in fact, the result of an overall change process which began long before 2020.

The lockdown only crystallized the underlying discontent, amplified by the dysfunctions revealed by the crisis (unequal redistribution of the outcomes of economic growth, failing health policy, short-term management of public services, unbridled capitalism). It allowed budding aspirations to be expressed with unexpected force, among all layers of society and throughout the world.

The shocks of the 2008 financial crisis, which caused a sharp slowdown in global economic growth, were not strong enough to bring about the long-awaited economic and financial model change.

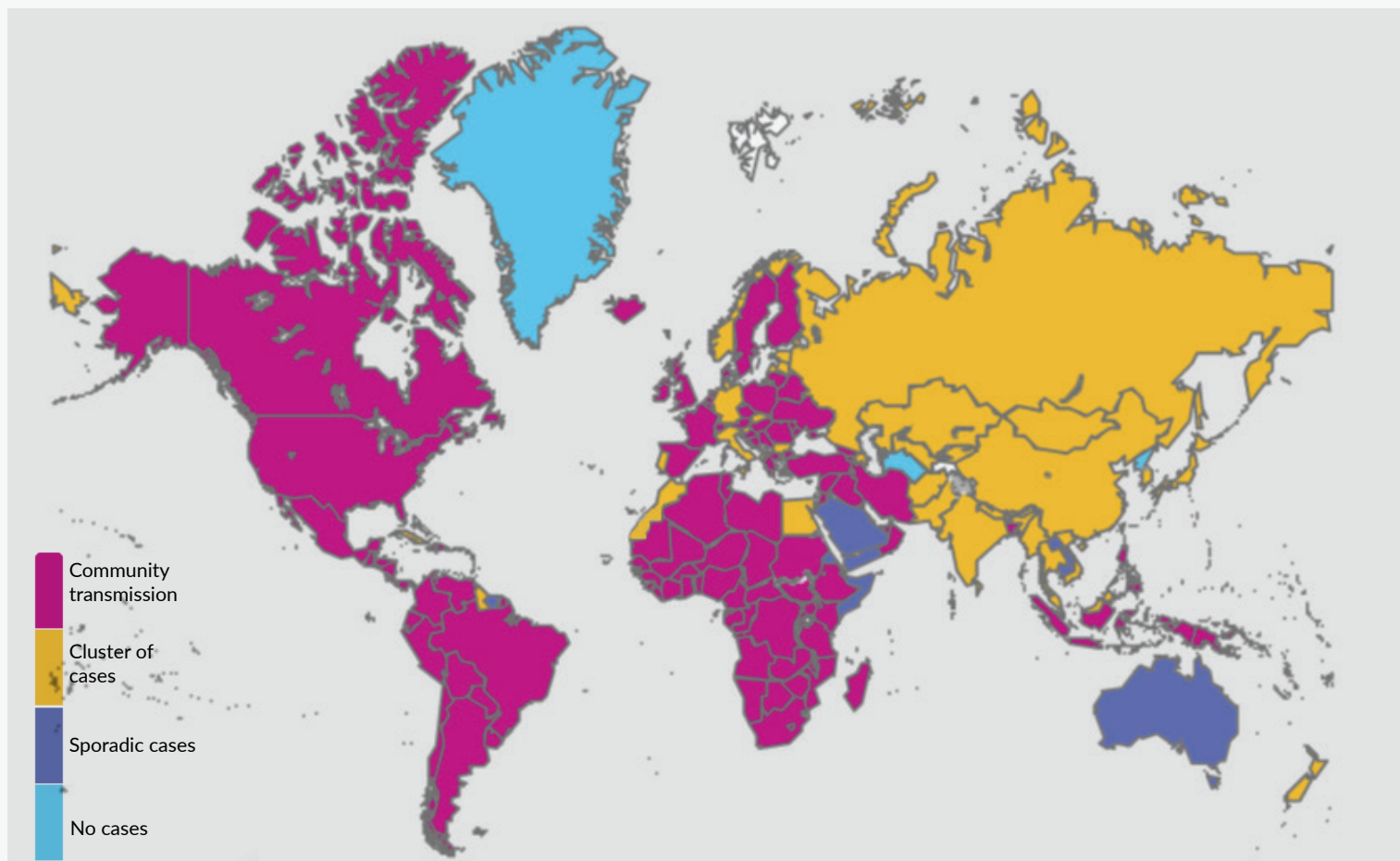
Today, once again, that expectation is manifesting itself, stronger than ever, but more radical as well.

This time, the yearning is not just for economic reforms, but for a **general, structural overhaul** of Western civilization which has thrust itself upon the entire world. The intention here is to put an end to the Anthropocene, to respect Nature, to reduce - even abolish - all forms of inequality, to honor the dignity and respect the freedom of every human being. This is about democracy, living together, well-being and peace. In a nutshell, this is about changing the world.

However, despite the good practices that are being implemented, going back to bad habits is easy, for citizens, as for rulers and businesses. Reforms need financing, but in a context of limited growth, it is essential to prioritize.

Do the seeds of change we are observing today stand a chance to burgeon in the difficult situation ahead?

Figure 23 : Classification de la transmission de la Covid-19 par pays dans le monde



Source : Retraitement IRES_ WHO Coronavirus Disease (Covid-19) Dashboard, 30 décembre 2020

Y

EARNING FOR CHANGE

Back to the origins

- ▶ The agro-industrial world, which has developed since the Neolithic Age throughout the planet, ended up generating more dysfunctions than progress during the 20th century. This development ushered in a new, major **transition** in the history of human civilizations (56).
- ▶ At that particular moment in history, during which the declining world and the emerging world collide, volatility and complexity increase, generating much uncertainty and ambiguity (VUCA), while many trends are pushed to their limit. That is when we speak of **post-normal times** (57).
- ▶ It refers to a dangerous period, when anything can change, including what is believed to be the most stable, as the forces of resistance to change are as powerful as the aspirations for a new world.
- ▶ The COVID-19 pandemic, and the lockdown which followed, are part of the **commotions** driving the Great Transition. More upheavals will come from climate change, from the scarcity of resources and from other diseases. Significant change is needed to face up to them, starting by a change of the predominant paradigm.

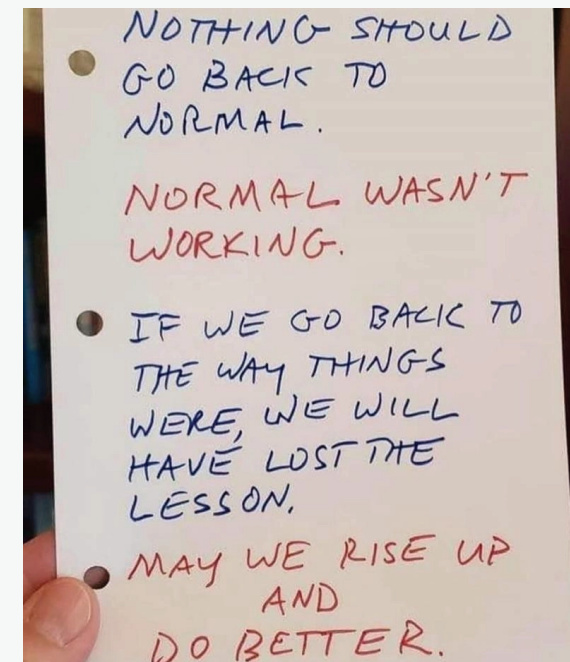
Global visions

- ▶ This time of crisis is providing a tremendous opportunity for structural change. Indeed, mankind's intuitive perception of such profound movements within the evolution process naturally tends to generate new representations of the world to come in order to adapt more properly to it.
- ▶ Since WWII, many think tanks (environmentalist ones mainly) have sounded the alarm regarding the abuses we are experiencing today, such as pollution or overconsumption of natural resources, and proposed alternative visions capable of steering a new type of development (sustainable development, blue economy, local economic systems, ...).
- ▶ Today, the pandemic seems to have made it possible to reach a critical mass, bringing together those who are dissatisfied with the current situation, and change-makers and thinkers who are sufficiently imaginative to consider new global alternatives and contribute to the paradigm shift. All that remains is to convince decision-makers of the necessity and urgency of such a radical overhaul.

Box 3 : Post-normal times

- ▶ All that was 'normal' has now evaporated; we have entered post-normal times, the in-between period where old orthodoxies are dying, new ones have not yet emerged, and nothing really makes sense. To have any notion of a viable future, we must grasp the significance of this period of transition which is characterized by three c's: complexity, chaos and contradictions. These forces propel and sustain post-normal times leading to uncertainty and different types of ignorance that make decision-making problematic and increase risks to individuals, society and the planet.
- ▶ Post-normal times demands, this paper argues, that we abandon the ideas of 'control and management', and rethink the cherished notions of progress, modernization and efficiency. The way forward must be based on virtues of humility, modesty and accountability, the indispensable requirement of living with uncertainty, complexity and ignorance. We will have to imagine ourselves out of post-normal times and into a new age of normalcy with an ethical compass and a broad spectrum of imaginations from the rich diversity of human cultures.

Ziauddin SARDAR,
"Welcome to postnormal times".
Futures, vol. 42, n° 5 (june 2010), pp. 435-44



Y EARNING FOR CHANGE (4)

A new 'normal' sets in

- ▶ The momentary chaos that characterized the management of the pandemic and the uncertainties brought about by the disease have led to the emergence of a new normality. Some of its aspects may turn out to be long-lasting. Here are a few of them (58).
 - ❖ **Mask wearing and social distancing.** As new tools in the fight against the virus, they recall the lasting increase of security (in work places, airports...) which followed the September 11, 2001 attacks. Anti-mask rallies (United States, France, Canada, United Kingdom) are similar to post-terrorist attack gatherings intended to dare terrorists: to ward off fear, we must change nothing in our lifestyle. However, the virus is hardly impressed.
 - ❖ **End of the economy's diktat.** Governments must now strike a balance between the health of citizens and the health of the economy, both of which are now equally lethal.
 - ❖ **The reverse of power dynamics.** In the tightrope-walk exercise of crisis management, slow, bureaucratic "big countries" (United States, China, Russia, Brazil, India) prove to be less effective than flexible, decentralized "small countries" (Portugal, Ireland, Greece, Taiwan, New Zealand, etc.).
- ❖ **Constrained mobility.** Re-instated controls, entry restrictions and border closures have severely restricted mobility - a key feature of globalization - of both goods and people. Quarantines, curfews and voluntary lockdowns have also constrained domestic travel. Will business travel, international tourism and air transport return to the pre-2020 situation? As part of its 'COVID-19 zero-tolerance' policy, New Zealand, for instance, will not open its borders until 2021, and only as part of a so-called "travel bubble" security zone
- ▶ In this environment of reverse perspectives, a more human approach seems to be prevailing :
 - ❖ **"Invisible" workers** (laborers, small traders, garbage collectors, nursing staff) have become the most visible.
 - ❖ **Health, solidarity and trust** are becoming key values, and politicians are expected to take that into account.
 - ❖ Long discredited, the **economics of well-being** has taken on its full meaning during the lockdown (sports, dietary accompaniment...etc.); it is even more essential today in supporting the most vulnerable (the elderly, bereaved or vulnerable people...etc.).

- ▶ This new perception of the world calls for devising a 'New Normal' (59) that takes into account – the change between “the world before” COVID-19 and “the world after” it.
- ▶ However, this new normal corresponds to a **one-time improvement** of the old 'normal'; it does not involve a substantial change in the development model, which is a characteristic feature of the Anthropocene* :
 - ❖ The GAFAM, reinforced by the crisis, are carrying even more weight.
 - ❖ Urban surveillance now extends to individual surveillance.
 - ❖ The calming 'quick-return-to-normal' rhetoric is fueling a false sense of certainty and stability, which had already been misleading the pre-COVID-19 world.
 - ❖ No major issue (pollution, biodiversity, food security, climate change, scarcity of resources, ...) has been resolved.
 - ❖ No tangible solution has been found to the most critical question: how to prevent a two-months' lockdown of nearly half the world's population from bringing the global economy to its knees, leading to such a systemic crisis ?
- ▶ In fact, **risks** have become more pressing because this development model has shown its limits and weaknesses :
 - ❖ No economy in the world will be able to withstand a new crisis of this magnitude before it recovers from this one. Still, who can guarantee, today, that no new major disaster will occur within the next three years ?
 - ❖ In such an uncertain world, science and ignorance go hand in hand (60), because prior knowledge, without a precedent, is of relative use only. Therefore, how can new capacities be developed to tackle ignorance and uncertainty ?
 - ❖ The ethical boundaries between what is normal and what is not have become blurred :
 - In some countries, the lockdown has exceeded the framework of health care, becoming a political instrument.
 - In others, overcrowded hospitals have had to decide who to save and who to let die.
 - And around the world, a decision had to be made whether the life of a few was worth the impoverishment of thousands of others...

Resorting to utopia

- ▶ Clearly, the new normal does not provide the radical solutions needed to make sure such a major crisis does not happen again.
- ▶ Moreover, the lockdown has generated an interesting paradox: social distancing ensures the safety of the individual, ignoring the fact that those individuals need, more than ever, to be in touch with their relatives, to support and help each other. To adapt to this situation, the global thinking of the community and the local action of the individual have become essential.
- ▶ **A new awareness** - which is quite unexpected because it is contrary to the all-dominant globalized economy which disconnects individuals (competition, broken families, ubiquity) - is emerging, according to which, for example :
 - ❖ relocating a business does not simply mean giving work to some, but also taking it away from others, who are thousands of kilometers away,
 - ❖ according to the most recent studies in the field of neuroscience, differences are no longer discriminating but enriching: they are the fruit of specialization in a cognitive- function strain based on individual experiences. This challenges the differences based on color or gender.
- ▶ Thus, the pursuit of that which is possible begins with combating the status quo (social demonstrations for example) and fighting against “it-will-never-work” attitudes, by building on experiments which are often on the margins of the current system, but which try to find means to get out of it (Songhai farms in Benin for example). There is also a return to **utopia** which, to many activist groups, seems as “**the only possible realism**” (61).
- ▶ Indeed, the future, as a horizon, seems to have narrowed down to two clearly opposing scenarios (62) :
 - ❖ The **collapse** of human societies: a possibility for which the work of many thinkers (63) has prepared minds, hence the references to collapsology* (64) and survivalism* (65).
 - ❖ Building a **better world** on entirely new foundations, based on a recognition of the current world’s failure and the need to rethink everything from scratch (66).
- ▶ Whereas, under this assumption, there is unanimity as to the need to resolve major challenges (inequality, climate change, etc.), the way to go about it is crystallizing differences between de-growth advocates and supporters of accelerated technological advancement (67).

Some conspicuous aspirations

- ▶ Many aspirations came to the fore during the first half of 2020. They were mostly based on existing ideas, which mirror the criticism leveled at the current world. Three major themes stand out.
- ▶ **Leading better lives.** This multi-faceted concept affects all domains of human activity :
 - ❖ A top priority is the pursuit of **happiness**, a corollary of the meaning to be given to one's life and actions, but also to the world in which one lives (68).
 - ❖ A more proper balance between time for work, time with relatives and time for oneself; also a need to **slow things down**: need to put an end to the headlong rush in a world where speed is the only determinant of success "(2); it is the cause of burnout*, of *nolife** and of segregation (stigmatization of "slow" individuals).
 - ❖ Greater attention is paid to the **body** - physical exercise, quality of food and the surrounding environment (air, noise, odors, etc.) - and more generally to **personal development**.
 - ❖ A fulfilling **living-together** environment: respect for privacy, pleasure of being together (conviviality*), rejection of outside appearances (especially clothing), solidarity and mutual trust, strong family relationships (70).
 - ❖ **Mindful consumption**: living better with less, freeing oneself from superfluous things, recycling, favoring eco-mobility * (71)
- ❖ Absolute respect for - even valuing of - **differences** in order to put an end to castes, the visible ones (India) as well as the invisible ones (United States), which stigmatize differences (72).
- ❖ Considering other ways of working: more autonomy and flexibility, more collaboration, less competition.
- ▶ **Lead free, safe lives.** Underpinning this expression is a global, multi-faceted aspiration :
 - ❖ Systemic **security**: health (quality care for all); existential security (respect for the person, dignity, protection against arbitrariness); economic security (social coverage), information security (transparency, information), political security (protection of the rule of law, peace).
 - ❖ **Democracy** conceived as power in the service of the people: the established order can endure only if it is "just", meaning only if the real duty of rulers - to ensure the well-being of their people - is fulfilled.
 - ❖ Curbing the **constraints** which unfairly restrict human freedom (bureaucracy, generalization); they can even be considered as "instances of aggression" (unachievable to-do-list, constant requirement/expectation to achieve more, optimization, ...) (73).
 - ❖ A **school system** that contributes to the child's fulfilment instead of his or her subordination; a system that promotes understanding rather than memorization, that explains ideologies rather than impose them, the aim being to reduce inequality and increase cultural biodiversity.

New ways of working and more...

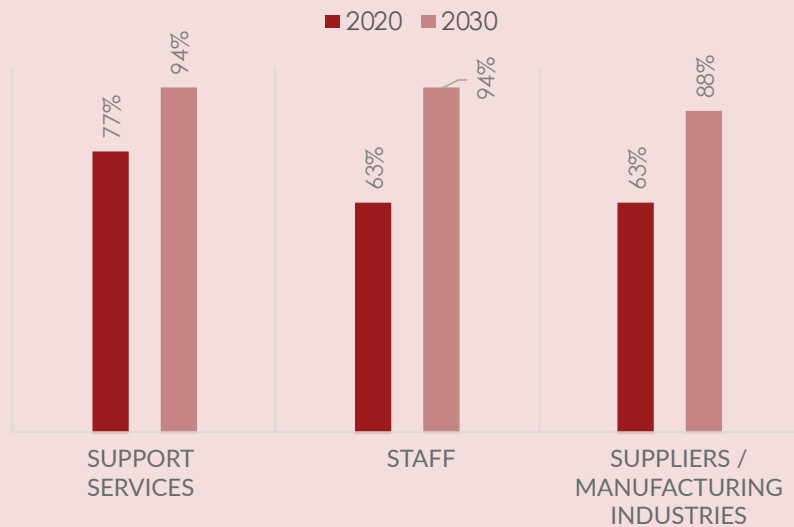
The COVID-19-induced lockdown has led to several important, if not new, findings.

- ▶ **Remote working** is possible for some, depending on the type of work performed (administrative or service work), but not for all, given workers' family conditions (size of the place of residence, quiet, etc.).
 - ❖ On the positive side of this period there is increased sharing/participation in domestic and family tasks among working couples*, greater attention paid to children's education (also distance learning).
 - ❖ On the negative side: poor households have generally not been able to resort to teleworking due to the nature of their activity (workers, farmers, artisans, traders) or living conditions (toddlers/young children, etc.). As a result, they were not only increasingly exposed to the virus but they also experienced a significant drop in income.
 - ❖ As regards businesses, the reduction in international workers' travel was a financial boon. Should that reduction be sustained, the number of staff needed could be reduced, aggravating post-pandemic unemployment.

- ▶ At state level, the idea of a **basic universal income paid** to all citizens is gaining ground (74). It could help respond to the severe recession caused by the COVID-19 pandemic, through the extension of the social safety net to the self-employed and part-time and informal workers.
 - ❖ To the benefit of the poorest segments of the population, Italy already has a citizenship income and Spain has just created a minimum living income. In Scotland, discussions with the British government are already underway. In France, a call for the establishment of a "socle citoyen" (a citizen's basic income corresponding to, Negative Income Tax) was signed. According to a post-lockdown study (75), 70% of Europeans support the idea of a universal basic income.
 - ❖ To increase its capacity of targeting poor people and vulnerable segments for whom social assistance is intended, Morocco is setting up a single Social Register, which will be operational in 2022.
 - ❖ Throughout the world, the idea is being increasingly considered, and each day makes it less far-fetched. Many governments have their eyes fixed on the idea's implementation in Spain, the largest experiment to date (76).
 - ❖ In addition to serving as a social safety net, the temporary implementation of a universal basic income would make it possible to undertake a thorough overhaul of the economic system; as it supports workers in occupations that are doomed to disappear, the measure would speed up the automation of the production system and also create new, greener jobs (77).

New ways of working and more... (2)

Figure 24: Growing corporate demand for freelance workers



Source : IRES-processed, Roland BERGER data

► Towards the *gig economy** ?

- ❖ Finally, the lockdown has led to new **lifestyles** or to serious questioning of things, which also has led some to resign. Among the reasons given: the need to find a less stressful pace of life (teleworking, freelancing*), continuing to take care of one's family, moving to a healthier environment ...
- ❖ As for businesses, the demand for **freelance workers** (gig economy) is growing, reflecting the extreme uncertainty in which these companies find themselves (78).
- ❖ A **connection** is thus created between a desire for new ways of working (autonomy) and a wish to resort to (freelance) workers (flexibility).
- ❖ All that is missing is the **prerequisite** for the gig economy to spread: more "worker-friendly" platforms and genuine social protection.

- **Getting out of the Anthropocene.** This aspiration, which is reinforced by the return of wild life (fauna and flora) and the improvement of air quality in deserted cities, which is undoubtedly the most systemic; encompasses the following :
- ❖ a new relationship with Nature, based on the concept of **planetary health**, which is more respectful of ecosystem balances (pollution, overconsumption of resources), closer to daily life needs (green spaces, short supply chains), more peaceful (source of relaxation), even paving the way to possible “Nature’s rights” that would be similar to human rights (79),
 - ❖ a substantial desire to take action: **environment** is taking back its rightful place (80), driven by :
 - the proven link between COVID-19 and prejudice to Nature - deforestation and loss of biodiversity - which increase infectious diseases (81),
 - awareness that the current crisis could soon happen again, given the effects of climate change (82),
 - the fact that half the world’s GDP hinges on Nature, and also the fact that for every dollar spent on nature restoration, at least \$9 of economic benefit can be expected (81),
 - the voice of a new generation that is more concerned about the environment and more effectively involved than the previous ones (83).

Box 4 : Planetary health

In this era of the Anthropocene, human activities are causing global environmental upheavals, affecting the climate and biodiversity, which, in turn, pose new threats to human health.

The concept of planetary health is based on the understanding that human health, well-being and civilization depend on thriving natural ecosystems that are properly managed. The latter are deteriorating at a speed and scale unprecedented in human history.

Reports from the Intergovernmental Platform on Biodiversity and Ecosystem Services and the Intergovernmental Panel on Climate Change (IPCC) show that new direct and indirect risks to human health and security are inevitably bound to increase if we do not change our modes of development to enable everyone to lead a dignified life by reducing the pressure on ecosystems, by acting to limit and reduce vulnerabilities and exposures, and by effectively and proactively reducing greenhouse gas emissions.

*Valérie MASSON-DELMOTTE,
Co-Chair of IPCC Working Group on
the physical science of climate change*

D EARNING FOR CHANGE (9)

From yearning to action

- ▶ Desire for **change** is real. A new development model is taking shape: one that is more sustainable, more decentralized (local economic systems), more frugal and biomimetic (blue economy), slower and more respectful of differences, more attentive to others... It suggests an ideal world of autonomous yet interdependent territories that are safer and healthier than large cities – territories with a close, responsible relationship with Nature (84). This model is meant to induce :
 - ❖ an economy which is free from the flaws of ultra-liberalism, or even capitalism, and which would put an end to predatory practices,
 - ❖ more humane, equitable and protective public policies that promote security and freedom. (See Box 5: A demand for change that predates the crisis)
 - ❖ more accessible, *lower tech technologies*.
- ▶ **Good practices** (see boxes “On the move 1, 2, 3 and 4”) are being inspired by them as frantic efforts are made to achieve recovery, as multiple pressure is being exerted by an uncertain economic future, by expressive (aggressive?) policies and by marketing policies that have become the key to both political and economic survival.

Good practices

- ❖ The Moroccan Royal Vision
- ❖ The European Green New Deal
- ❖ The pandemic: a catalyst in the North... and in the South as well
- ❖ African advancement on all fronts



Morocco: The Royal Vision

State of emergency and total lockdown

“ [...] I care as much about the Moroccan citizens’ health and the safety of their family members as I do about my own children and my smaller family...”

“ ... Those were difficult - and at times painful - decisions to make. They were not taken light-heartedly. In fact, we had to resort to those measures for the sake of the safety of our citizens and in the interest of our nation.” (Excerpts from His Majesty the King’s to the Nation on occasion of Throne Day, 29 July 2020)

- ▶ The state of emergency and the total lockdown were proclaimed as early as March 20, 2020, together with the closure of schools and universities (March 13), of places of worship (March 17) and of recreation and entertainment facilities. The lifting of the lockdown measures started on June 10, however, at the end of 2020, the state of emergency was still in effect.
- ▶ Closure of borders and suspension of air travel on 9 March 2020. On 14 July 2020, the Kingdom partially reopened its borders to foreigners, but special conditions applied.
- ▶ The obligation to wear a face mask was instituted on 7 April 2020.

Measures to stem the spread of the pandemic

“ I have also instructed the Government to support the sectors affected by the pandemic, safeguard jobs and preserve the spending power of families who have lost their source of livelihood.. ”. (Excerpts from His Majesty the King’s to the Nation on occasion of Throne Day, 29 July 2020)

- ▶ Further to the High Instructions given by His Majesty the King, a **Special Fund for the management of the Coronavirus pandemic** was created. It raised MAD33.7 billion, including MAD 10 billion from the State budget, and the rest came from various donations. MAD24.65 billion financed social support measures and the purchase of necessary medical equipment and MAD5 billion were allocated to economic recovery.
- ▶ At the end of July 2020, this fund had made it possible to cover MAD2.2 billion of the health sector’s expenditure, MAD22.4 billion was paid as financial aid to 6 million households (employees affiliated with CNSS (the national social security fund) and household members working in the informal sector), in addition to a commitment of MAD5 billion to the Caisse Centrale de Garantie (central guarantee fund) to cover the risk of default for companies benefiting from the guarantee within the framework of the “Damane Oxygene” mechanism.

Morocco: The Royal Vision (2)

- ▶ A **national business intelligence committee** has been set up. Its main objective is to monitor changes in the economic situation through rigorous control and evaluation mechanisms and the identification of appropriate measures to support sectors that are affected the most by the crisis :
 - ❖ Reduction of charges: suspension of the payment of social security charges, possibility for companies with a turnover of less than MAD20 million to defer the filing of tax returns, and suspension of tax audits and Third Party Notifications.
 - ❖ Supporting corporate cash flow: institution, on 26 March 2020, of a new exceptional cash flow guarantee mechanism for companies affected by the crisis, called “**Damane Relance et Oxygène**”, through the Central Guarantee Fund. At the end of December 2020, nearly MAD53 billion ⁽⁸⁵⁾ of guaranteed loans had been granted to help with the recovery of companies.
 - ❖ Supporting access to bank loans, in particular by lowering the central bank’s main policy rate from 2.25% to 1.5%.
- ▶ **On the social level: 70% of Moroccan households have received financial assistance :**
 - ❖ Formal sector: payment by the National Social Security Fund (CNSS) of a monthly allowance of MAD2,000 to employees on final or temporary work stoppage, from mid-March to the end of June: nearly 900,000 employees affiliated to the CNSS received compensation. For employees in the tourism sector, the same allowance also covered the second half of 2020 ⁽⁸⁶⁾.
 - ❖ Informal sector: launch of “Tadamon” operation to help household members working in the informal sector: the amount of this assistance was MAD800 for households made up of two people or less, MAD1,000 for households of three to four people, and MAD1,200 for households of more than four people. A total amount of nearly MAD16.5 billion was raised since the launch of this operation in March 2020, and approximately 5.5 million households benefited from the operation ⁽⁸⁷⁾.

Morocco: The Royal Vision (3)

A comprehensive, future-oriented approach based on three major pillars

“ ... Our action is not limited to simply facing up to the current epidemic. We also aim to address its social and economic effects by building on a comprehensive, future-oriented approach and by drawing lessons from this experience... ”

“ ... this crisis (...) has also revealed a number of shortcomings, especially in the social field : Among them are the size of the informal sector, the inadequacy of social safety nets - especially for the most vulnerable groups - and the exposure of a number of sectors to external fluctuations.

Consequently, we should seize the opportunity of the current situation to reconsider our priorities and to lay the foundations for a strong, competitive economy and for a more inclusive social model... ” (Excerpts from His Majesty the King's to the Nation on occasion of Throne Day, 29 July 2020)

Priority area 1 : An ambitious post-crisis, New Deal-type economic recovery policy :

“ ...launch an ambitious economic stimulus plan to enable our productive sectors to recover and to increase their ability to provide jobs and preserve sources of income. ”

“ ...mobilize all available resources, offer incentives and come up with solidarity measures to support businesses, especially small and medium-sized enterprises, which are the backbone of our economy. ” (Excerpts from His Majesty the King's to the Nation on occasion of Throne Day, 29 July 2020)

Morocco: The Royal Vision (4)

► Measures for economic recovery

- ❖ **Pact for economic recovery and employment 2020/2021:** raising MAD120 billion, or 11% of GDP, to support the “Pact for economic recovery and employment” adopted on 8 August 2020, of which MAD75 billion are State-guaranteed loans (“Damane Relance”), MAD45 billion are allocated to the Mohammed VI Investment Fund, whose creation was announced in the Throne Day Speech of 29 July 2020.

This fund is expected “ to play a pivotal role in promoting investment and boosting our economy. In this regard, it will support productive sectors and will finance and provide assistance to major projects within the framework of public-private partnership.

...The fund will focus its interventions on specialized sectoral funds affiliated with it (...)

The areas concerned in this regard include the restructuring of industry, innovation, high-potential sectors, small and medium-sized enterprises, infrastructure, agriculture and tourism... ” (Excerpts from the speech delivered by His Majesty the King at the State Opening of Parliament, 9 October 2020)

- In keeping with the High Instructions of His Majesty the King, this pact aims to ensure economic recovery, boost the dynamism of the economy, preserve and stimulate employment, accelerate the process of formalizing the economy and promote good governance.
- Adoption of support measures for young people: Intelaka 2.0; income tax exemption to encourage the recruitment of young people under the age of 35.
- ❖ **2020-2022 Program contract for “Relaunching the tourism sector in the post-COVID19” phase:** the program was launched on 6 August 2020 with a view to countering the serious effects of the crisis on the sector, preserving the economic fabric and employment, accelerating post-lockdown recovery and transforming the sector in a sustainable way. On 8 September 2020, the CNSS (national social security fund) created a portal dedicated to employees in the tourism sector who are suffering from the effects of the crisis. This platform aims to enable companies involved in the tourism sector to benefit from a MAD2,000 allowance (financed by the Special Fund for the Management of the Coronavirus Pandemic). The allowance was paid from 1st July to 31st December 2020.

Morocco: The Royal Vision (5)

Priority area 2 : A thorough reform of the public sector

“ ...Similarly, a sweeping reform of the civil service should be expedited, and the structural deficiencies of public institutions and state enterprises should be addressed to achieve optimal integration and increase these institutions’ economic and social effectiveness.

To this end, I call for the creation of a national agency to be tasked with ensuring the strategic management of state contributions and assessing the performance of public institutions... ” (Excerpts from His Majesty the King's to the Nation on occasion of Throne Day, 29 July 2020)

Priority area 3 : The promotion of development and the establishment of social and territorial justice

“ ... One of the foremost objectives, in this respect, is the provision of social protection for all Moroccans. This will remain my chief concern until all segments of society are properly covered. ” (Excerpts from His Majesty the King's to the Nation on occasion of Throne Day, 29 July 2020)

► The achievement of universal social coverage is to be based on four key elements :

- ❖ *Firstly: Achieving universal compulsory health coverage for an additional 22 million individuals by the end of 2022, at the latest. It should include the cost of medication, drugs, hospitalization and treatment.*
- ❖ *Secondly: Ensuring universal access to family allowances for approximately seven million children of school age, from which some three million households stand to benefit.*
- ❖ *Thirdly: Expanding enrolment in a pension scheme for about five million Moroccan workers who do not currently have a retirement plan.*
- ❖ *Fourthly: Ensuring universal access to unemployment protection insurance for Moroccans with steady jobs. ”* (Excerpt from the speech delivered by His Majesty the King at the State Opening of Parliament, 9 October 2020)

Morocco: The Royal Vision (6)

- ▶ Social protection coverage is a main lever for the **integration of the informal sector** into the nation's economic fabric. This project is to be carried out within 5 years thanks to :
 - ❖ “ (...) a comprehensive, practical approach that includes the timetable, legal framework and financing options (...)”,
 - ❖ “(...) good governance, which is based on constructive social dialogue (...)”,
 - ❖ A mechanism grounded in “(...) the principles of integrity, transparency and fairness” to avoid “any perversion or exploitation of this lofty social project for political gain”. (Excerpts from His Majesty the King's to the Nation on occasion of Throne Day, 29 July 2020)

The next step requires pooling the efforts of all Moroccans to meet the challenges ahead.

▶ Strategic orientations on health matters

“We take the opportunity of this conference to reaffirm Our steady willingness to include the promotion of the health sector among the major essential projects of the country. This stems from Our conviction that the right of access to health services, which was enshrined in the new Constitution of the Kingdom, constitutes one of the major pillars for the consolidation of citizenship within dignity and for the achievement of global human development and integrated as We wish for Our country.”

“(...) It is also a question of providing efficient responses, in particular to the issues relating to the implementation of the constitutional right to care, attention, medical coverage and health security, as well as to adoption of good health governance and the improvement of psychic and mental health as well as the health of people with specific needs and the elderly. It is also a question of considering the appropriate means to ensure the necessary financing, at the national and international levels, to develop the mutual insurance system and to reduce the disparities between the regions to guarantee equitable access to care.” (Excerpts from the Royal Message addressed to the 2nd conference on health, 1st July 2013)

Morocco: The Royal Vision (7)

“(...) we should consider the possibility of having quality initiatives and global leaders involved in some sectors and professions - such as the health care sector - which are not currently accessible to foreigners, provided the said projects contribute to the transfer of know-how and create employment opportunities for young Moroccans with the right qualifications”. (Excerpt from the Royal Speech delivered at Opening of 1st Session of 3rd Legislative Year of 10th Legislature, 12 October 2018)

“As you know, the current crisis, with its health, economic, social and psychological repercussions, is not yet over. What matters most, at this stage, is to be vigilant, commit to preserving the health and safety of citizens, continue supporting the health sector and keep up efforts to boost the economy and enhance social protection”. (Excerpt from the Royal Speech delivered at Opening of 1st Session of 5rd Legislative Year of 10th Legislature, 9 October 2020)

“In accordance with the High Royal Instructions, this vaccination campaign will be free for all citizens.

The campaign, which will take place gradually, will benefit all Moroccan citizens and foreigners living in the kingdom aged between 17 and over 75 years.

This will make it possible to achieve the expected levels of collective immunization and protect the population against this pandemic. His Majesty the King, may God assist him, will give the effective start of this vaccination campaign on Thursday, January 28. “ (Statement by Royal Office: Launch of the national free vaccination campaign against Covid-19, 27 January 2021)

Morocco: The Royal Vision (8)

► Health measures

- ❖ Reorganization of hospital centers: setting up of COVID-19 designated wards in hospitals.
 - ❖ Mobilization of the medical and paramedical personnel of the Royal Armed Forces as well as military social services.
 - ❖ Mobilization of several hotels for use by public health and military medical personnel.
 - ❖ Extension of hospital capacity through the opening of field hospitals and the restructuring of public institutions; increasing the bed capacity through the purchase, at the end of April 2020, of 460 intensive care beds and 580 standard hospital beds (88). At the end of August 2020, building on the momentum created by the manufacturing of protective face masks, the Kingdom was able to develop its first 100% Moroccan resuscitation bed with a view to covering local demand and possibly exporting to other countries at a later stage, especially African ones.
 - ❖ A significant extension of the screening infrastructure, at first at the Institut Pasteur and university hospitals, and later at accredited private sector laboratories. According to the Moroccan Ministry of Health, nearly 4.5 million tests were carried out in Morocco between March 2 and December 30, 2020, with a daily average of nearly 18,000 tests during the last 3 months.
- ❖ Signature of a memorandum of understanding on 18 September 2020 for the purchase of anti-COVID19 vaccines and planning for a massive vaccination campaign against COVID-19, which began at the end of January 2021. The two-dose campaign targets the population aged 17 and over, which is estimated to stand at 25 million people.
 - At first, priority is given to front-line staff, such as health professionals, law enforcement personnel, security forces, national education personnel, people aged 75 and over and vulnerable individuals. Then the immunization campaign will be extended to the rest of the target population.
 - With 1.7 million people vaccinated by 15 February 2021 (89), i.e. a daily average of 87,000 vaccinated people since the campaign started, the Kingdom is in the top 20 of the most advanced countries in terms of vaccination against COVID-19 (90).

The European Green New Deal

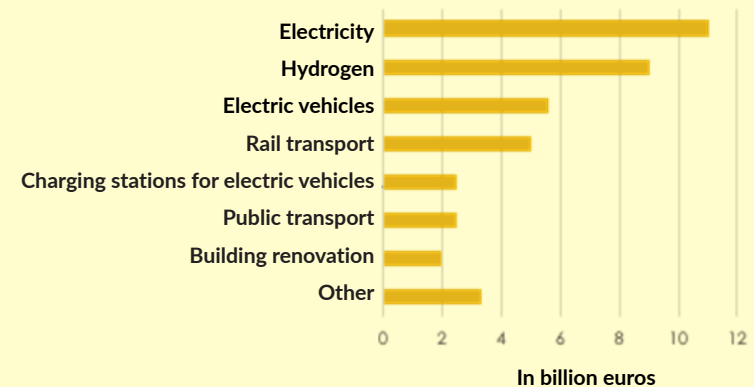
European Union

- ▶ To achieve its economic recovery following the COVID-19 pandemic, the European Union has come up with a Green New Deal. The project aims, among other things, to promote the energy transition and urban renewal and also to launch a future hydrogen economy (91).
- ▶ 30% of spending under the €750 billion recovery plan will target climate change to make sure Europe will be climate-neutral by 2050.
- ▶ An EU tax on single-use plastic waste will be levied from 2021. Other measures (carbon tax, reform of “... markets?”) will
- ▶ be debated in 2021 (92).

Germany

- ▶ The €130 billion post-COVID recovery plan reflects widespread calls for a “green recovery”.
 - ❖ A third of that amount will be used to ban coal use by 2038 and reduce CO2 emissions, thanks to the use of renewable energy.
 - ❖ €5.6 billion will be devoted to the manufacturing of electric vehicles
 - ❖ €9 billion will be dedicated to the development of hydrogen, an energy source that could power the industry of the future (93).

Figure 25 : Green transition
A third of the German stimulus plan will be devoted to reducing greenhouse gas emissions



Source : IRES-processed, Bloomberg data

The European Green New Deal (2)

France

- ▶ One of the main priorities of France's recovery plan is the ecological transition: €20 billion (on 24 August 2020) (92).
- ▶ The French aeronautics industry could play a central role in making global air traffic carbon-free :
 - ❖ To reduce Air France's environmental footprint, the government is making its aid package of €7 billion contingent on the carrier reducing its domestic flights by 40% (to the benefit of rail transport), and its CO₂ emissions by 50% by the year 2030 (94).
 - ❖ €1.5 billion euros will be invested by 2023 to make France one of the most advanced countries in clean aircraft technology (reduction in fuel consumption, aircraft electrification, transition to carbon neutral fuels, such as hydrogen) (95).
- ▶ Automotive sector (96) :
 - ❖ Creation of the Automotive Future Fund, with a budget of €1 billion, intended for the modernization and digitization of production chains, the ecological transformation of the automotive industry as well as innovation, including €200 million for the modernization and decarbonization of the production fabric.
 - ❖ By 2025, the production of electric, plug-in hybrid or hybrid vehicles will be increased to 1 million vehicles.
 - ❖ By 2023, €1 billion will be invested by major equipment manufacturers in energy transition technology in France (batteries, electric powertrains, hydrogen technology).
 - ❖ Public procurement: setting a target of 50% electric, hybrid or hydrogen vehicles in public fleets and installation of electric charging stations.

The pandemic: a catalyst in the North

During this pandemic, many (seemingly) impossible facts have become possible thanks - not to technological shifts - but to changes in vision or behavior.

- ▶ In the village of Moneygall, in Ireland, drones are now delivering prescription drugs and essential food products directly to homes, preventing vulnerable people from going outside (97).
- ▶ In Europe, 16 major European banks have launched a new, unified pan-European payment solution, based on instant transaction technology. The initiative, which will be available in 2022, encompasses a payment card, a digital wallet and person-to-person payments as well as cash withdrawals (98).
- ▶ Around the world, GAFA (Google, Apple, Facebook and Amazon), which are usually reluctant to interfere with the content they convey, have started to combat disinformation, from mass communication of official health messages to the removal of messages clearly conveying fake news (99).
- ▶ In France, 400,000 businesses involved in the social and solidarity economy * (i.e. 3 million jobs) have created a group called “Nous Sommes Demain” to demand the generalization of the “sovereign, resilient and more equitable economy (100).
- ▶ Throughout the world, the principles of frugal innovation have led to the development of makeshift respirators by academic institutions such as the Massachusetts Institute of Technology (MIT), or by companies like Decathlon and the OCP Group, and telehealth platforms (Best Buy, Cisco). Large companies have thus been able to quickly readjust their working tools: automobile manufacturers started producing respirators, ready-to-wear factories produced face masks and hospital gowns, manufacturers of cosmetics and alcoholic beverages produced disinfectants, etc (101).
- ▶ On 28 March 2020, Portugal regularized the situation of all migrants applying for residence and automatically renewed residence permits so that the entire population residing in Portugal could benefit from the country’s free health care system (102).

The pandemic: a catalyst in the South as well

Franco-African recovery

- ▶ While in February 2020, the disenchantment between France and French-speaking Africa seemed irreversible, as illustrated by France's decline to the seventh rank of African leaders' preferred countries, the creation of the Eco currency and the setting up of the African Continental Free Trade Area (AfCFTA)⁽¹⁰³⁾. On 4 May 2020, a **Franco-African manifesto** was published: "The time has come to create a Union for Africa". It called for the establishment of a new relationship, both economic and political, between France and Africa ⁽¹⁰⁴⁾, following the example of the Union for the Mediterranean. It is to be based on three pillars :
 - ❖ For donors/creditors, this would be an opportunity to cancel the debt and to make future aid contingent on controlling the use of the said aid (US\$90 billion left the continent since 14 February 2020).
 - ❖ For debtors, this would be an opportunity to effectively engage in more principled economic policies, particularly through the development of health and education and respect for fundamental rights.
 - ❖ For France and interested African states, it would be an opportunity to establish a new political and economic relationship.
- ▶ A new platform, **Africa Mutandi**, was launched in May 2020; it rallies French private and public actors (French Development Agency, Orange, STOA, BNP Paribas) against COVID-19 in Africa, as well as corporate social responsibility actions and civil society to promote sustainable development goals in Africa ⁽¹⁰⁵⁾.

Another Africa is possible !

- ▶ African intellectuals addressed an open letter, titled "**The time to act is now**" to African leaders, African peoples and committed intellectuals in Africa, urging leaders to seize the opportunity of the coronavirus crisis to joint efforts in rethinking an African state in the service of the well-being of its people, to break with a model of development based on the vicious cycle of indebtedness, to break with the orthodox vision of growth for the sake of growth, and of profit for the sake of profit. (...) In short, it is imperative to put forth the value of every human being regardless of status, over and beyond any logic of profit-making, domination or power capture " ⁽¹⁰⁶⁾
- ▶ *" Because of the coronavirus pandemic, the continent is on the verge of a systemic fracture, the extent of which we do not yet fully fathom. (...) The African continent should urgently take it upon itself to devise an endogenous development paradigm, based on the promotion of a local economy characterized by short circuits that are best suited for populations under lockdown measures; a model based on low-carbon economy, so as not to increase global warming, a phenomenon for which the continent is absolutely not responsible, and, finally, a solidarity-based economy grounded in the imperative redistribution of the economic surplus. "*

Kako NUBUKPO, Togolese economist ⁽¹⁰⁷⁾

O N THE MOVE N°3

The pandemic: a catalyst in the South as well (2)

Morocco's active solidarity with African countries

- ▶ Because the pandemic involves risks that recognize no borders, and since the pandemic cannot be managed at the national level alone, Morocco has proposed, as it did with migration, an African initiative for the development of an operational framework to manage the different phases of the pandemic. This pragmatic, action-oriented initiative, which allows for the sharing of experiences (108), was materialized, at an initial stage, by the placing of the Mohammed VI Sebeninkoro polyclinic at the disposal of COVID-19 patients in Mali, and by an emergency aid given to the Central African Republic. At a later stage, substantial medical assistance was sent to the **African Union Commission** and to twenty African countries.
 - ❖ Shipment of medical assistance and provision of sanitary equipment, including 8 million masks, 900,000 visors, 600,000 hygiene caps, 60,000 medical gowns, 30,000 liters of hydroalcoholic gel, as well as 75,000 boxes of chloroquine and 15,000 boxes of Azithromycin ... (109)
- ▶ Moreover, it should be pointed out that at the meeting of the African Union's Permanent Representatives Committee held on 11 June 2020, which was devoted to examining the socio-economic and humanitarian impact of COVID-19 in Africa, the Kingdom of Morocco called for the setting up of a **platform of African experts in the fight against epidemics**. The aim is to enable the continent to take its destiny into its own hands and tackle future health challenges by promoting the exchange of experiences and supporting governments in their respective action plans for the fight against diseases and the spread of epidemics, including COVID-19. The Kingdom also called on the African Union to make the African Medicines Agency fully operational in order to promote the continent's "pharmaceutical autonomy" and, hence, strengthen its resilience in combating epidemics.



Africa: progress on all fronts

- ▶ **Democratization in motion:** in May 2020, a former minister of defense (Burkina Faso) and a former director of the presidential cabinet (Democratic Republic of the Congo) were charged and convicted by the justice system of their country, without interference by those in charge (110).
- ▶ On April 22, 2020 : Sudan criminalized female genital mutilation, ushering in a new era for **women's rights** in the country (111).
- ▶ May 2020: the Worldwide Afro Network (**WAN**) project, a pan-African rallying manifesto for "Life After the Pandemic", which is supported by the United Nations Educational, Scientific and Cultural Organization, is turned into a creative platform celebrating the convergence of arts, leadership and innovation in Africa (including the African diaspora). The network brings together African tech companies to fight the pandemic and rethink the continent. It promotes African innovators and cultural leaders who seek to bring forth an Africa built and celebrated by Africans, for Africans (112).
- ▶ On March 15, 2020 : The President of Kenya declared a new protective measure: the use of **mobile payment** as a "national priority". The aim was to ban the use of cash for 45 million Kenyans, and M-PESA and Safaricom played along right away (113).
- ▶ In May 2020, the United Nations Educational, Scientific and Cultural Organization announced **free access to online educational content in sub-Saharan Africa** through the main mobile telephone operators affiliated with the Global Coalition for education (a multi-sectoral partnership initiated by UNESCO, whose aim is to offer distance education adapted to all learner categories during the pandemic) (114).
- ▶ In the fight against COVID-19, there have been several **innovative African initiatives** in the areas of diagnosis and care, but also in :
 - ❖ prevention: in Nigeria, autonomous drones ensure rapid delivery of medical supplies to hospitals, laboratories and health centers in Africa; in Tunisia, SeekMake manufactures face shields, protective goggles and valves for hospitals using an extensive 3D printer network; in Morocco, a massive screening campaign in companies and the use of mobile laboratories made it possible to prevent the spread of the epidemic as early as June 2020,
 - ❖ information: Sehatuk-bot, a Moroccan chatbot, answers questions about prevention and symptoms; in Tunisia, the N3awen.com platform centralizes all available help while Defusor fights against disinformation relating to COVID-19... (115).

TAKING A STEP BACK

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way .

in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.

A Tale of Two Cities, Charles DICKENS (1859)

R REALITY CAN BE STUBBORN

From action to implementation

- ▶ A yearning for change is palpable around the world, driven by an underlying **dissatisfaction**, for which the pandemic has been just the catalyst.
- ▶ **Rumors** are already spreading about de-globalization, de-growth, decolonization, relocation, intellectual and territorial autonomy ... Plans are being devised to fight climate change, in order to restore biodiversity, to curb CO2 emissions, so as to promote clean energy, to reduce economic dependence and to enhance digitization ... (80)
- ▶ Nevertheless, all these hoped-for changes are clashing with **reality principle**, because their implementation hinges on three things :
 - ❖ The will of public and private decision-makers, who should be ready to embrace thorough reforms that might crystallize divisions and cost them their jobs.
 - ❖ The intellectual readiness of citizens and consumers to change their habits and behavior.
 - ❖ The availability of financial, human and organizational resources to effectively help fulfil these hopes.

- ▶ Finally, the context for realizing those hopes does not help: a **global** systemic crisis, coupled with a recession not seen since 1929, and a pandemic with no end in sight.

It has been difficult to provide care to the homeless, during the lockdown and after



Source : <https://theconversation.com/cities-must-end-homeless-camp-evictions-during-the-coronavirus-pandemic-139285>

R REALITY CAN BE STUBBORN (2)

Failure to anticipate ?

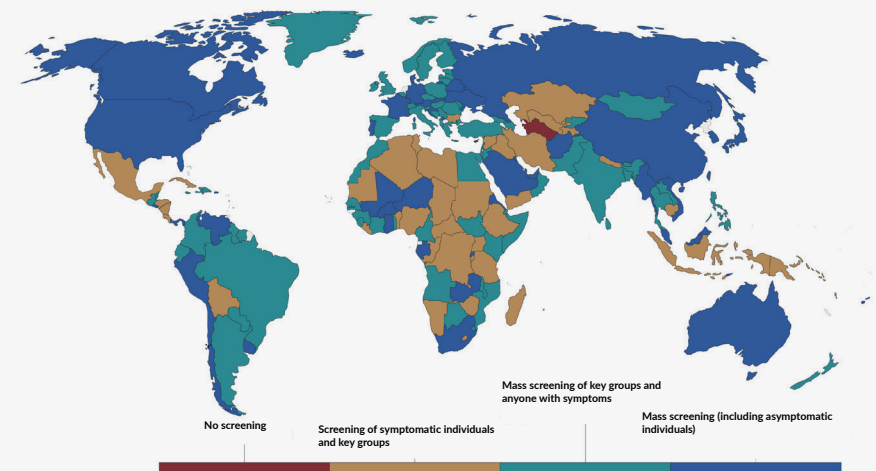
- ▶ One of the first reactions to the great lockdown crisis was to blame the lack of anticipation and the inadequate preparation of policymakers; this presumably explains the gravity of the situation.
 - ▶ Nevertheless, in the early 2000s, **several anticipatory works**, of which decision-makers were aware, had raised the possibility of a pandemic, such as reports of the United States National Intelligence Council for the years 2004, 2008 and 2017. The SARS epidemic, which lasted from 2002 to 2004, confirmed those probabilities. The World Health Organization, convinced that a serious pandemic would occur from 2003 onwards, focused its activities on emerging diseases and on promoting a culture of preparedness for such events (116).
 - ▶ **Why** have decision-makers not taken this likelihood seriously ? Probably for the same reason they failed to take into account the 1972 MEADOWS report (The Limits to Growth) on the degradation of natural resources, and the reports the IPCC has been regularly publishing since 1990 on the worsening of the climate change situation.
- ▶ The **short-termism** of governments and businesses alike is undoubtedly the first thing to blame.
 - ❖ Uncertain of carrying on with their political agenda for more than a few years, ministers manage day-to-day business and ready-to-implement operations, leaving thorny issues to their successors.
 - ❖ In the corporate sector, the diktat of shareholders means the latter care little about medium or long-term assumptions: competition and the pursuit of dividends impose an accelerated pace.
 - ▶ Second, there is **unavailability** and lack of reflection and of leeway due to the requirements of managing an increasingly complex, interdependent world. The accelerated pace of human activity does not stimulate thinking conducive to structural change, as clearly illustrated by the lockdown.
 - ▶ Finally, the lack of preparation is a **conscious** bet against disaster, it is nurtured by the false sense of security mentioned earlier - 'this will not happen' - (see page 16), by the certainty of being able to control everything - **stronger together** - and of the 'de-responsibilization' occurring in an insurance-based society - **the insurance company will pay** (117).

R REALITY CAN BE STUBBORN (3)

Managing the current situation...

- ▶ Given the magnitude of the crisis caused by global containment, certainties have been shattered and the world is now facing **uncertainty** (regarding both the duration and the consequences of the crisis) - which explains the volatility of the measures taken - as well as the need to remedy things, since the insurance system has shown its limits.
- ▶ In most countries, the **immediate priorities** of public authorities are threefold :
 - ❖ **Stem the spread of the pandemic** to get out of the epidemiological situation as quickly as possible: total or partial containment, social distancing, wearing of face masks, support for caregivers, limited resumption of activities, investment in the three pillars of the fight against the pandemic (isolation, tracing and testing) and in the dual search for a vaccine and a cure.
 - ❖ **Protect the most vulnerable populations** through the expansion of social safety nets, through efforts to identify and support people who live in isolation (elderly, sick or disabled persons), those who are in danger (domestic violence) and those who are marginalized (informal workers, irregular migrants, victims of exclusion) and promote distance learning.
 - ❖ **Mitigate economic losses** so as not to impede the urgently needed resumption of creation of wealth: greater social protection measures (unemployment benefits), reduction or deferral of taxes, increase in public procurement (construction and public works in particular).

Figure 26 : COVID-19 screening policies around the world



Source : IRES-processed, Oxford COVID-19 Government Response Tracker, December 2020

R REALITY CAN BE STUBBORN (4)

- ▶ To give concrete substance to these priorities, the States must ensure their **financing**. Nevertheless, the scale of the economic situation is such that they have had to resort to massive sectoral stimulus packages requiring means that no country possesses.
 - ❖ The globalization of the crisis has led to **unprecedented financial measures** being used to revive the global economy and limit social damage.
 - ❖ By adopting similar policies (containment, recovery plans), states have made sure they will not be penalized by competing with one another, thus further reinforcing their **interdependence**, both at the regional level (European Union) and worldwide (North and South).
- ▶ Seen from that perspective, the desired changes may well be reduced to **wishful thinking** since governments – which are facing the specter of massive unemployment – are seeking, first and foremost, to preserve jobs rather than undertake a hypothetical green conversion (118), especially as the **windfall effects** are already starting to be felt :
 - ❖ In some places, the pharmaceutical and telecommunications industries, which have hardly suffered from the crisis, are embarking on social plans (119).
 - ❖ In others, the collapse of Africa’s air fleet, which is suffering from a chronic deficit, is being patiently awaited to take control of a growing continental market (120).
- ▶ In addition to the economic predicament, governments must respond to the demands for systemic security expressed by their populations :
 - ❖ Health security, which is revealing its limits as shown by the bankruptcies caused by the imposed containment and distancing measures.
 - ❖ Security of supply, which has forced a number of states to pay a high price for strategic products (masks, medical equipment, food products, etc.) and which has led others to rethink their participation in global value chains and consider relocating part of their production fabric.
 - ❖ Security vis-à-vis the disruptions caused by globalization, as sovereignty and regionalism are being favored.
 - ❖ Security of responses to local needs, which accelerates the devolvement of powers.
 - ❖ Security involving individuals, which is leading to increased surveillance.
 - ❖ Democratic security, in the face of authoritarian temptations induced by a “shock strategy” (121).
 - ❖ International security, in the face of growing tensions, both domestically (Hong Kong, Lebanon, Bolivia, Belarus, Kashmir, etc.) and at international level (United States-China, North Korea and Iran against the West...).

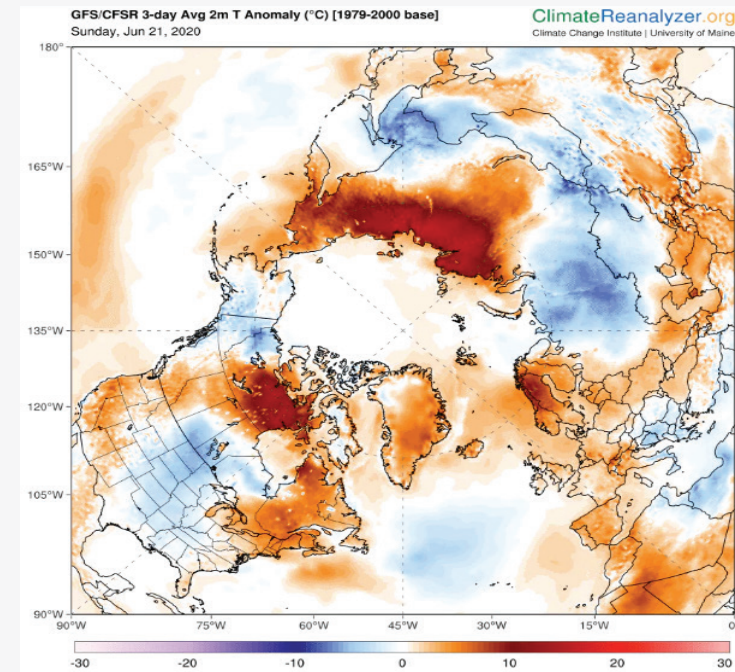
R REALITY CAN BE STUBBORN (5)

... while continuing to manage structural balances

Although the management of the pandemic is taking center stage today, it masks only superficially the challenges that any government will have to face.

- ▶ **The degradation of natural resources**, which is impacting the prices of raw materials and food products. However, its effects will be even worse in the future because of the current sixth mass extinction which is changing the natural food chain, but also the plant cover, harvests (pollination, soil aeration and enrichment) and water quality (purification) (127).
- ▶ **Climate change**, which involves a double challenge :
 - ❖ To tackle - even prevent - the damage climate change is causing; in 2020, the world witnessed warming temperatures in Siberia, floods in Asia, drought and forest fires in the Northern Hemisphere, as well as locust invasions, droughts and floods in Africa ... (122).
 - ❖ To bring about the critical mass of countries that would make it possible to have a significant impact on the climate: the German or Korean Green Plan alone will not suffice (93).

Figure 27 : Extreme temperatures in Siberia and northern Canada, June 2020



Source : Climate Reanalyzer

R REALITY CAN BE STUBBORN (6)

- ▶ **Globalization-induced imbalances** (see Part II), particularly the following :
 - ❖ China's weight in world transactions: this is a growing source of tension with the North and of dependence for the South,
 - ❖ the now obvious shortcomings of an asymmetric global health system based on technical assistance; as a consequence, the poorest countries are left to grapple with their misery while the richest countries focus exclusively on solving their own difficulties (123),
 - ❖ the slowdown in global growth since 2008, which is due not just to the financial crisis, but also to the fact that economies are vulnerable to disasters (Japan 2011), and to the rise of nationalism, protectionism, automation and environmental issues (124).
- ▶ The **limits of the capitalism** as it is known today, are clearly illustrated by the following (125) :
 - ❖ the declining efficiency of businesses, due to the slowdown in overall factor productivity,
 - ❖ Imbalance in revenue sharing, in favor of profits,
 - ❖ Growing speculative activities, which are responsible for financial crises.

Resilience, ... to change

- ▶ Thus, the efforts made to ensure a return to a normal situation as quickly as possible are jeopardizing real possibilities for change because short-term solutions are given precedence over the structural reforms needed.
- ▶ Consumers themselves, in the euphoria following the lifting of containment measures and given their unconscious refusal to be enslaved by a virus, often revert very quickly to their old habits, notwithstanding the hopes they themselves nurture for change.
- ▶ Thus, resilience, which is the ability of a system to return to, or preserve, a state of dynamic equilibrium following a period of instability due to an external or internal disturbance (126) , and which is vital for survival, can become the first obstacle to change after the occurrence of a crisis.

Will it be possible, after the COVID-19 shock, to strike a new balance – one that can remedy the dysfunctions of the previous world ?

- ▶ A world and a globalization in crisis since 2008.
- ▶ A growing awareness that the time has come to change the world.
- ▶ Leading better lives, being free and safe, getting out of the Anthropocene : these are the deepest yearnings for change.
- ▶ But the facts on the ground are not really conducive to a comprehensive overhaul of the system.

Box 5 : A demand for change that predates the crisis

- *Beyond GDP growth, other measures of well-being paint an even bleaker picture in several parts of the world. The climate crisis, persistently high inequalities, and rising levels of food insecurity and undernourishment continue to affect the quality of life in many societies.*
- *Policymakers should move beyond a narrow focus on merely promoting GDP growth, and instead aim to enhance well-being in all parts of society. This requires prioritizing investment in sustainable development projects to promote education, renewable energy, and resilient infrastructure.*
- *The urgency of energy transition continues to be underestimated, resulting in short-sighted decisions such as expanding investment in oil and gas exploration and coal-fired power generation.*
- *Overreliance on monetary policy is not just insufficient to revive growth, it also entails significant costs, including the exacerbation of financial stability risks. A more balanced policy mix is needed, one that stimulates economic growth while moving towards greater social inclusion, gender equality, and environmentally sustainable production.*
- *Amid growing discontent over a lack of inclusive growth, calls for change are widespread across the globe. Much greater attention needs to be paid to the distributional and environmental implications of policy measures.*

World Economic Situation and Prospect 2020 – June 2020

PART I – CONCLUSION

- ▶ The aim of this first part was both to understand the nature and magnitude of the COVID-19 crisis - this being a prerequisite for the analysis of a post-COVID world - and to identify the seeds of change at work, with respect to both mindsets and practices.
- ▶ The recent history of health crises (since WWII) shows that more serious epidemic situations have not generated the same attention on the part of governments and citizens alike. Reactions to this pandemic reveal the evolution both of the Tocqueville paradox (degree of intolerance) and of the 1989 seizure of power by the citizens from the rulers (fall of the Berlin Wall).
- ▶ At the same time, on a global level, the containment measures applied and the way in which the crisis has been managed have shown a general lack of preparation as well as clear irresponsibility on the part of social networks and media, which have fueled what is perhaps a disproportionate fear, but also a growing yearning for sweeping change.
- ▶ Should health become a new investment item in the management of economic risk, this novel approach should be accompanied by deep structural measures (global value chains and other dysfunctions of globalization) so that the various national and global socio-economic systems can withstand the looming recession. Hopefully, this shock will not be the first in a long series ...



| PART II

WHAT POST-COVID WORLD ?

An exceptional level of uncertainty

- ▶ Whereas the containment associated with the first wave of the pandemic caused a shock on a global scale, amplifying already existing problems, the lifting of containment measures did not bring the expected peace.
- ▶ On the one hand, because it quickly became clear that the pandemic had not disappeared, all it took was a return to normal activities for the pandemic to spread once again in many countries.
- ▶ On the other hand, hopes for a quick resumption of economic activity receded while the extent of the real damage caused was clear: unemployment, bankruptcies, rising costs, school drop-out, youths at a loss...
- ▶ The bleakness of the times to come is made even more difficult to bear by the uncertainty that has set in: When will there be a return to normal? What is the real extent of the damage suffered to date? What will be the consequences? What is happening elsewhere in the world ?

- ▶ The reasons for such an ambivalent situation are not all of them due to the pandemic; they are partly due to the persistence of pre-existing trends: from conflict to climate change, from globalization-induced imbalances to the fragility of development in Africa (Chapter One).

New structural perspectives

- ▶ Although the resilience of human beings and of the processes underpinning their activities is significant, and even though the natural drivers of change (climate change, ecological footprint, collapse of biodiversity, scarcity of natural resources, ...) are likely to remain unchanged by 2050, the tomorrow's world could be somewhat different.
- ▶ Because of containment measures and their consequences, new forms of awareness are emerging, some trends are taking a firmer shape, and others are being accelerated. A new structural landscape is taking shape, whose contours are still imprecise, but it is of crucial importance in terms of informing decision-making (Chapter 2).



● **Media & Entertainment** ● **Education / Work**
 ● **Shopping**

Morning

- I wake up & decide to exercise or meditate
- I have some meetings on our future virtual workshop with one of our clients

Noon

- I browse online to find the best indoor plants
- I make my purchase online

Afternoon

- I take an online training course
- I order food for the week with home-delivery

Evening

- I have virtual dinner with friends
- I play collaborative games through my smartphone



CHAPTER 1

A WICKED PROBLEM

T

HE ISSUE AT STAKE

The rhythm of the seasons seems to have impacted the evolution of analyses relating to the post-COVID-19 world :

- ❖ In the spring of 2020, the surprise containment measures raised high hopes for a radically different “post-COVID world;
- ❖ The summer, on the other hand, was a time to celebrate recovered freedom, to believe that the pandemic was defeated, already almost forgotten.
- ❖ The fall of 2020 belied that optimism as the economic and social situation worsened on a global scale and as a new wave of infections started: the virus is still active and mass vaccination will probably have to wait until the spring/summer of 2021.

As it stands, the winter bareness of the situation is quite clear: the economic impact of the crisis - together, probably, with the health impact - will last longer than expected and if, in the North, the recovery plans may mitigate its effects, the South remains helpless. A new normalcy is taking hold...

If the winter season is only tolerable because it lays the groundwork for the budding of spring, it is legitimate to wonder about the future world that is taking shape.

Still, no anticipation exercise, so far, has ever been so difficult... and fraught with danger. Indeed, prospective work is based on verifiable facts, demonstrable trends and proven emerging tendencies, based on periods of time that are long enough to be significant.

Today, however, the decision-maker is informed in the heat of the moment, without hindsight and without parallel, since the situation is unprecedented.

This chapter will therefore seek to show the condition and the causes of the current uncertainty by highlighting, first, the constitutive elements of the kaleidoscopic vision of the future which is emerging today, then the drivers of change, other than the COVID-19 pandemic, that will still be weighing on the coming decades.

E

DGAR MORIN : LIVING WITH UNCERTAINTY

- ▶ **“Uncertainty” is ingrained in all the questions we ask because we know nothing about this virus.** Those uncertainties concern the treatment, the vaccination and the consequences of the epidemic in all fields: health, social, economic, environmental,... (127)
- ▶ The forecasts epistemologists make are sometimes limited to a period of 15 days. How, in that case, can one reflect on the economy, on social consequences, on life ?
- ▶ For Edgar Morin, the epidemic crisis must be teaching us to better understand science, to live with uncertainty, to rediscover a form of humanism. This pandemic is just one of many crises in the history of mankind. Morin believes that we must learn to live with the unknown, to overcome crises rather than be indignant. This crisis can release “creative forces” and “forces of lucidity”.



Source: FUTUROSCOPIE

A critical information gap

- ▶ **The media:** Because they are unprepared for this kind of situation, the media - especially those relying on advertising - try to reflect what they perceive as the expectations of their audience. With that in mind, there have been three distinct periods during which the media focus differed significantly :
 - ❖ During the lockdown, the focus was on reporting on the ongoing situation and its immediate effects, excluding any other kind of information.
 - ❖ With the lifting of the lockdown measures, and as questions about the post-COVID-19 world gained much momentum, more pragmatic concerns about tourism (with summer vacations drawing near) and the start of a new year (school, work, employment, aid) were on everyone's mind.
 - ❖ Finally, at the end of the summer of 2020, a return to normalcy was the main topic day in all media, which focused on a resurgence of infections and on other topical issues (the US elections and sporadic events). Momentous questions about the "world after" disappeared.
 - ▶ **Articles and essays:** many authors have surfed on the global media wave of the "post-COVID world", often in the form of quick, emotional reactions, ranging from infatuation for the possibility offered by the pandemic to change the world, to a disabused rejection of hopes that did not seem to turn into reality.
 - ▶ **Scientific information:** the vast, global chaos we are seeing today - as if through a kaleidoscope - has not been around for more than a year. Scientists, especially in the field of human and social science, need time to collect, compile then seriously analyze data. Besides, scientific activity itself is slowed down by the lack of resources, both human and financial (funds are mostly allocated to medical research). Hence, scientific production is fragmented.
- In addition to the lack of objective, quantified data, in all countries there is a dearth of in-depth reflection on the situation currently prevailing in the world. As a result, any anticipation exercise is virtually impossible.

A KALEIDOSCOPIIC VISION

Every crisis is an opportunity

- ▶ In the Chinese language, the word “crisis” is composed of two characters, one representing danger and the other, opportunity. The first part of this report has shown how this systemic crisis has given rise to aspirations and utopian thinking, expressing **hope as to a new post-COVID reality**.
- ▶ In addition to ordinary citizens, many leaders, entrepreneurs and professionals are convinced that we have **a historic opportunity** to reimagine our future, not only for ourselves, but for our organizations as well (135).
- ▶ Today, mankind has the technological, human and financial means to open up a wide range of **possibilities**. Everything now seems within reach.
- ▶ Therefore, this is not a question of a failure of imagination, but rather of a **crisis of choice and the conscious risk** of a break with the current situation. Indeed, when it comes to deciding the destiny of many people, one’s decisions ought to be based on objective data. Today, that data is lacking.

A crucial lack of data

- ▶ While exceptional efforts were made in the spring of 2020 to provide health data in near real time, other information sectors (economic, social, etc.) were not really involved in that regard. Hence the gaps in short-term anticipation, which were recognized even by the Organization for Economic Cooperation and Development (OECD) (136).
- ▶ The reasons for this lack of data include :
 - ❖ the business-as-usual publication of national statistical institutes (production of annual or quarterly data) (130),
 - ❖ greater discrepancies in data comparability during a major crisis (131),
 - ❖ lack of data characterization that helps accurately reflect events, e.g., does a leave of absence from work for an indefinite period count as a job or as unemployment ?
 - ❖ very slow, non-decentralized and unreliable measurement systems that are not prepared to deal with such large-scale phenomena (132).
- ▶ Thus, the absence of data, delays in obtaining it, its unreliability or lack of comparability explain why it is difficult to grasp the current reality and take appropriate measures.

A

KALEIDOSCOPIC VISION (2)

A radicalization of divides

- ▶ One thing leading to another, the **lack of objective data** amplifies the negative consequences of the crisis (like not taking certain populations into account in support policies, for instance), which increases unpredictability.
- ▶ When it is no longer possible to objectively grasp the changes and disruptions underway, or that are about to happen, that becomes fertile ground for a **clash of the least rational opinions**, since there is no longer anything whereby one can objectively justify his or her argument.
- ▶ The first strong divides appeared since the very outbreak of the pandemic and revolved around the coronavirus. For example :
 - ❖ **Regarding the virus**: some see a future forever plagued by SARS-CoV-2; others are convinced that a vaccine is within reach; still others hope the virus will simply go away.
 - ❖ **Regarding the origin of the virus**: a consequence of deforestation, the pangolin or the bat, an accidental release from a bioengineering laboratory, testing of a new biological weapon;
 - ❖ **Regarding its circulation, prevention or treatment**, as is the case with hydroxychloroquine, the health policies in place, the use of masks, ...
- ▶ The second wave of divides concerned rifts over the very idea of the “world after”: will the next 18 months really see the emergence of a world different from the pre-COVID world, or will a return to normal prevail once again? And if a change were to occur, what will be its characteristics (133) ?
- ▶ Pessimism versus optimism, conservatism versus progressivism, theory versus practice, top versus bottom, youth versus old age, institutional visions versus new citizen voices, nationalism versus international cooperation... the rationale for these multiple divides appears to be boundless (134).
- ▶ Why do these divides matter? Because, when it comes to the future, it is the vision of the most numerous, the most influential and the most active that will probably prevail. For this reason, we have seen some unprecedented responses to the pandemic: the great containment, ‘helicopter money’, but also the implementation of policies that were overdue, such as the digitization of public services or inter-regional justice in the provision of public service (135).
- ▶ Those divides illustrate the tug of war that is being played out, both locally and globally, in order to be in control of the emerging change.

A KALEIDOSCOPIIC VISION (3)

Towards a paradigm shift

- ▶ Major historical events, such as the current crisis, tend to generate their own “confirmation bias” (136) : the observation of those events reinforces each person’s own vision of the world as well as that person’s conviction that he or she is perceiving the signs of the change they would like to see.
 - ❖ The 2007-2012 financial crisis sensitized many traders and analysts about the real impact of the “financial game” (137). A thorough reflection on the need for a new globalization model has started to emerge (138).
 - ❖ The double health and economic crisis caused by COVID-19 has exacerbated this interrogation by adding to it the depth and breadth of aspirations and goals (see Part I).
- ▶ Although it is difficult, at this stage, to confirm that a global paradigm shift has already taken place, given the lack of data and sufficient hindsight, a number of indications are showing that mentalities have been significantly changing since the beginning of the 21st century.
 - ❖ For more than a decade, multiple initiatives have been at work, around the globe, experimenting with new modes of action, from Barefoot College in India (see IRES’s Strategic Report 2018: Towards Africa’s Autonomous Development“) to local currencies and waste recycling (139).
- ❖ A new, stronger ecological awareness has been shaped by the pandemic: There seems to be a consensus on the station of human beings in Nature, their relationship with living beings and the importance of preserving ecosystems
- ❖ Growing social inequalities are becoming unacceptable in most countries, calling into question the current form of globalization, but also the situation of developing countries as well as respect of human rights (140).
- ❖ Fundamental concepts underpinning the current paradigm of growth and progress are beginning to be questioned for the benefit of a promotion of **values** and **ethics** in human activities (141).
- ▶ Over and beyond intellectual or ideological divides, the current “narratives*” are illustrating these evolutions because not only do they reflect our perceptions of the current world, but they are also to determine the vision of the future world (142).
- ▶ They clearly show that **people’s well-being** carries sufficient weight today in the scale of values to lead to a desire to re-engineer economic, political and governance systems in order to promote a more sustainable type of development, for the benefit of mankind and the planet (140).

Kaleidoscope : images of the world after

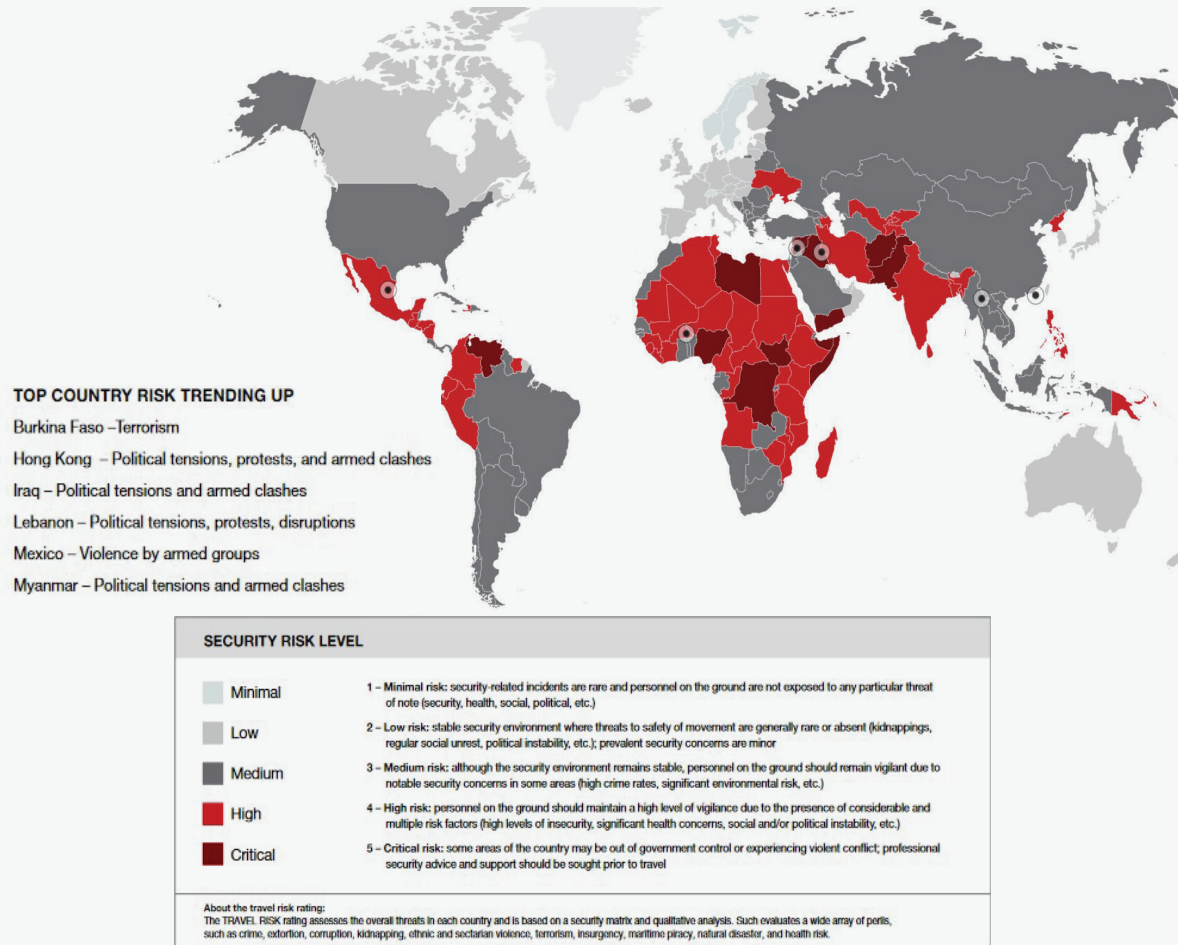
- ▶ **Nothing will change** : neoliberalism will continue to crumble, the left will continue to search for itself, autocrats will continue to reinforce their power, while China and the United States will remain on a collision course. For things to change, a paradigm shift is needed (136).
- ▶ **Social disintegration**: at the end of the crisis, those who are without jobs, without hope, without money, without access to health care, could turn against the others, even against the power in place (143).
- ▶ **Globalization** :
 - ❖ **Global disintegration**: the longer the crisis lasts, the more self-sufficiency will set in, the more obstacles to the free movement of people and goods will become the new normal (143).
 - ❖ **New globalization**: the pandemic could introduce the next wave of globalization, with reduced carbon emissions, greater economic equity, and more capable international institutions (144).
 - ❖ **Consolidation of the current globalization**: because growth cannot do without the trillions of dollars of international investment, because technological advancement brings greater interconnection - not barriers - and because the best vaccine against a future pandemic will be trans-national cooperation (145).
- ▶ **The recovery will be green**: the cost of ecological transition has been enormously reduced over the last decade, making it possible to effectively implement that transition (146).
- ▶ **The post-COVID global economy**: in the years to come, three trends will fashion the global economy: more state interventionism, the end of hyper-globalization and a decline in growth (147).
- ▶ **A new international order**: it will be re-engineered by the powerful countries, taking into account the lessons learned from the current pandemic. The role of international institutions will also be revisited (148).
- ▶ **Verbatim**
 - ❖ “The (current) crisis seems to have thrown the dominant characteristics of each country’s politics into sharper relief. Countries have in effect become exaggerated versions of themselves. This suggests that the crisis may turn out to be less of a watershed in global politics and economics than many have argued. Rather than putting the world on a significantly different trajectory, it is likely to intensify and entrench already-existing trends.” Dani RODRIK, Professor of International Political Economy at Harvard University’s John F. Kennedy School of Government (136).

PERSISTENT RISKS

Near-sightedness or blindness ?

- ▶ The sociologist Alain BERTHOZ defines simplicity as a concept which enables living organisms to confront complexity through new ways of addressing problems, in order to be able to act and anticipate the consequences. Simplicity leads to ignoring certain aspects of the environment so as to remain focused, allowing actions to be taken more quickly (149).
- ▶ Thus, at the beginning of this 21st century, as the world is becoming increasingly complex and as time seems to shrink to the point that there is permanent urgency, proponents of simplicity argue that there are 'blind spots': facts or signals that we do not want to see because we do not know how to deal with them quickly in a given situation. It is the "elephant in the room", a taboo evidence (150).
- ▶ Among these "invisible" warning signs are the increase in chronic diseases (diabetes, hypertension, etc.), the deterioration of mental health (depression, suicides), growing structural inequalities (poverty, ethnic conditions), climate change (which is seldom factored in)... and the oft-mentioned probability of a pandemic (151).
- ▶ Nevertheless, COVID-19 was a surprise on a global scale (see Part I), like the destruction of Pompeii, albeit the city was built on the foothills of an active volcano. The purpose of this comparison is to show that, in both cases, warning signals were there, but they were ignored, notably by public authorities.
- ▶ Hence the inevitable question to which it is now urgent to find an answer: **How to bring governments to stop ignoring risks, but rather to organize themselves in order to prepare for them ?** Such unpreparedness leads to victims and casualties (death, poverty, etc.) (152).
- ▶ **Risk anticipation and prevention** remain the best response, provided they are part of the governance process, and not left entirely to researchers and analysts, who can barely make themselves heard (153).
- ▶ To this end, **risk mapping** is necessary. It should be backed up by early warning systems and feasible solutions to deal with such contingencies. In the current situation, this mapping is all the more imperative since all attention is focused on the pandemic and its consequences, while pre-pandemic threats are continuing - even getting worse.
- ▶ At a time when the "next world" could be taking shape, it is important to go beyond blind spots and take those risks into consideration in order to build a truly sustainable future (154).

Figure 28 : 2020 Global Travel Security Map



Source : IRES-processed, Global Risk Maps and Reports 2020, GardaWorld

PERSISTENT RISKS (2)

Risk mapping*

- ▶ Changing global trends - in such areas as demographics, information, politics, war, climate, environmental damage, and technology - and the increasing interdependence of countries and economies have generated an unprecedented level of danger. As a result, new risk categories have emerged at the turn of the century.
- ▶ “ **Existential risks*** ” (see graph: terminal intensity x trans-generational impact) could lead to the extinction of the human species or the collapse of civilization (155). This category reflects the realization that the human species can cause its own extinction.
- ▶ “ **Major global risks*** ” (see attached graph: orange boxes) represent considerable dangers for humanity that, however, do not necessarily lead to the extinction of the species. Their perception is associated with a sense of ‘planetarization’, which conceives the planet as an interdependent whole.

Figure 29 : Risk classification grid

Impact	Endurable intensity	Major intensity	Terminal intensity
personal	Car theft - Home fire...	Amputation of a limb - life imprisonment ...	Death - Brain damage...
local	Economic recession - natural disaster...	Infrastructure destruction - Colonization...	Genocide - Earthquake...
global	Ozone depletion - Alteration of biodiversity...	Mega-eruption - Global warming...	Widespread nuclear conflict - Devastating pandemic...
transgenerational	Extinction of an animal species...	6 th mass extinction...	Global ocean anoxia - Self-replicating nanobots...

Based on Nick BOSTROM, Existential Risks, Journal of Evolution and Technology, Vol. 9, No. 1 (2002).

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ERSISTENT RISKS (3)

- ▶ Several research centers and institutes annually publish a mapping of major global risks determined on the basis of analyzed facts or according to the perceptions of decision-makers (156). Among the **major catastrophic risks** (located between major risks and existential risks) considered today are the following :
 - ❖ **Environmental risks:** Species extinction and climate change which represent a threat to the food-water-energy Nexus, leading to conflicts over resources and mass migrations.
 - ❖ **Technological risks** due to the increasing introduction of artificial intelligence in health, knowledge and security; this increases the risk of malicious use (hacking).
 - ❖ Risks based on the development and use of **weapons of mass destruction:** nuclear weapons and chemical and bacteriological weapons.
 - ❖ **Biological risks:** pandemics and malicious use of genetic modification technology.
 - ❖ **Natural hazards** coming from the earth and space: volcanic mega-eruptions, cosmic radiation, solar flares, space objects crashing to earth ...
- ❖ Written in 2019, the Global Risks Report 2020 indicated the high probability of the following **major global risks** occurring in 2020 :
 - ❖ **Macroeconomic vulnerabilities** and **financial inequality** threaten social cohesion and economic stability due to the risk of global economic stagnation, strong economic conflicts, such as the Sino-American rivalry, and the polarization of states over domestic politics (numerous elections around the world).
 - ❖ The failure to mitigate and adapt to **climate change** over the next decade poses the greatest long-term risk to humanity: indeed the impacts are stronger and faster than expected (warming, melting polar ice, extreme events).
 - ❖ The human **ecological footprint** and the **6th mass extinction**, which is currently underway, will exacerbate the economic and social consequences of climate change, threatening food production, the availability of drinking water and the re-generation of the air we need to survive.
 - ❖ Non-existent global technological governance and poor cybersecurity increase the risk of a **fragmented cyberspace**; this could hinder economic development (4th industrial revolution), aggravate geopolitical rivalries and divide societies.

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ERSISTENT RISKS (4)

- ❖ **Healthcare systems** throughout the world may no longer be able to fulfil their mission due to a combination of three factors: the increase in cardiovascular and mental diseases, which have become the leading cause of death worldwide; the cost of chronic diseases, which has increased due to greater patient longevity; and the slowing down of progress against pandemics due to reluctance to vaccinate and resistance to drugs.

- ▶ Some of these risks have become a reality in 2020, and others are still looming. COVID-19 has made a crucial difference by creating new threats, eliminating others, and giving substance to anticipations earlier than expected.

Crisis factors* generated by COVID-19

Being inherent to risks, crisis factors are at work, at this very moment, and they could lead to major events. These factors - which are either the result of the situation generated by the pandemic, or pre-existing factors reinforced by the pandemic - are rounding off the list of potential threats for the years to come (157). Among them :

- ❖ **A prolonged pandemic crisis** : successive infection waves, significant mutations of the virus, late vaccine campaigns. These factors would weigh particularly heavily on economies that are highly dependent on global trade.

- ❖ **Geopolitical tensions**: although the new US Administration will most likely seek to defuse many of the tensions created by the previous administration, the internal disruptions in the Middle East, the Russian-American confrontation and the Sino-American economic competition are likely to continue (158).

- ❖ **Rising global protectionism**: trade and diplomatic tensions, obstacles to the smooth functioning of global supply chains, protection of strategic domestic sectors, creation of new local supply chains... these obstacles are likely to hinder international trade and investment, which many emerging countries need.

- ❖ **Global recession**: the recession, which is already affecting many countries around the world, could spread to hitherto healthy economies because of the prolonged economic downturn.

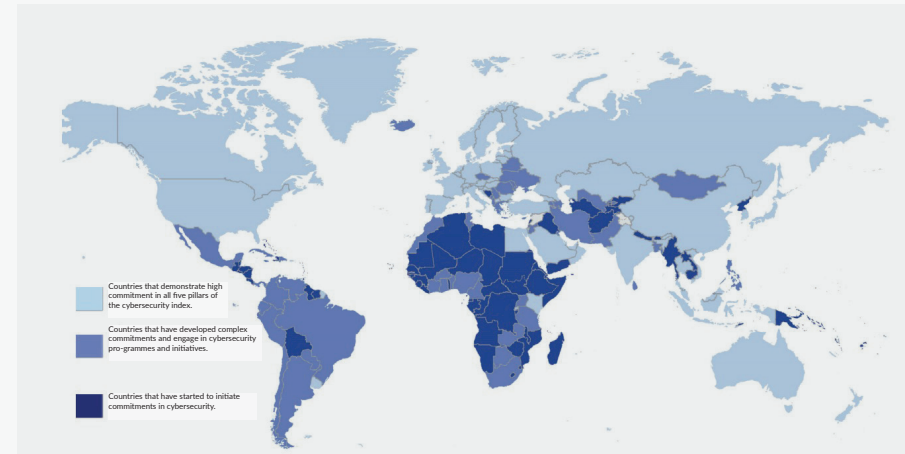
- ❖ **Soaring sovereign debt** : the numerous measures taken to prevent the collapse of the economy - stimulus plans - have dangerously increased indebtedness levels in most economies.

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ERSISTENT RISKS (5)

- ▶ **Risky increase in corporate debt worldwide:** taking advantage of low interest rates in the last few years, many companies, which had dangerously increased their level of debt, are now obliged to borrow again to cope with their economic difficulties, risking to trigger a wave of defaults.
- ▶ **Deep-seated social tensions:** the economic recession, high unemployment rates, the deterioration of the living conditions of underprivileged populations... have compounded the already high social tensions expressed in 2019, leading to large protest movements in major capitals and to public order disturbances (clashes in Africa and Central America).
- ▶ **Worsening of the security situation:** as states withdrew into themselves during the pandemic, this sometimes fueled violent xenophobic sentiment and encouraged the proliferation of terrorist movements and illegal trafficking (159).
- ▶ **Increase in cybercrime:** accelerated digitalization, which made it possible for activities to continue during the lockdown, opened a breach in security systems, particularly due to teleworking (unsecured equipment, increased data transfers, etc.).

Figure 31 : Heat map of national cybersecurity commitment 2018



Source : IRES-processed, Global Cybersecurity Index (GCI) 2018, International Telecommunication Union

Figure 30 : Global Risks landscape 2021



Source : World Economic Forum Global Risks Survey 2021

Figure 30 (continued) : Global Risks Landscape 2021



Source : World Economic Forum Global Risks Survey 2021

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ERSISTENT RISKS (6)

A high level of danger

- ▶ The crisis factors addressed in Part I of this strategic report add to the risks involved. This, in turn, increases both the current uncertainty and the **level of danger for the world** in the decades to come (160).
- ▶ The **ability to control or not** these hazards will generate highly differentiated situations in the future, regardless of the geographical area concerned, such as violence or peace in the Sahel (see Focus n°5), in the Mediterranean or in Nagorno-Karabakh, or the extent of poverty and famine due to the pandemic and climate change.
- ▶ Beyond that ability to control or not, **awareness** and **will** play a key role, for example in conflicts which occur when global public opinion looks the other way (Uyghurs, Rohingyas) or when citizens are powerless when facing their political leaders (Lebanon, Hong Kong).
- ▶ **Withdrawal into oneself** at the local or national level, because of the persistence of the pandemic at the end of 2020, will only increase those perils. The feeling of being abandoned, prevailing among suffering populations, could generate violent resentment, leading to increased xenophobia, deteriorated international relations, even extreme acts (radicalization) and the resurgence of terrorism

The Islamic State in West Africa



The security issue in Africa

Two major - at times intertwined - phenomena are unfolding in Africa: the organized advance of the Islamic State and the search for income through illegal means.

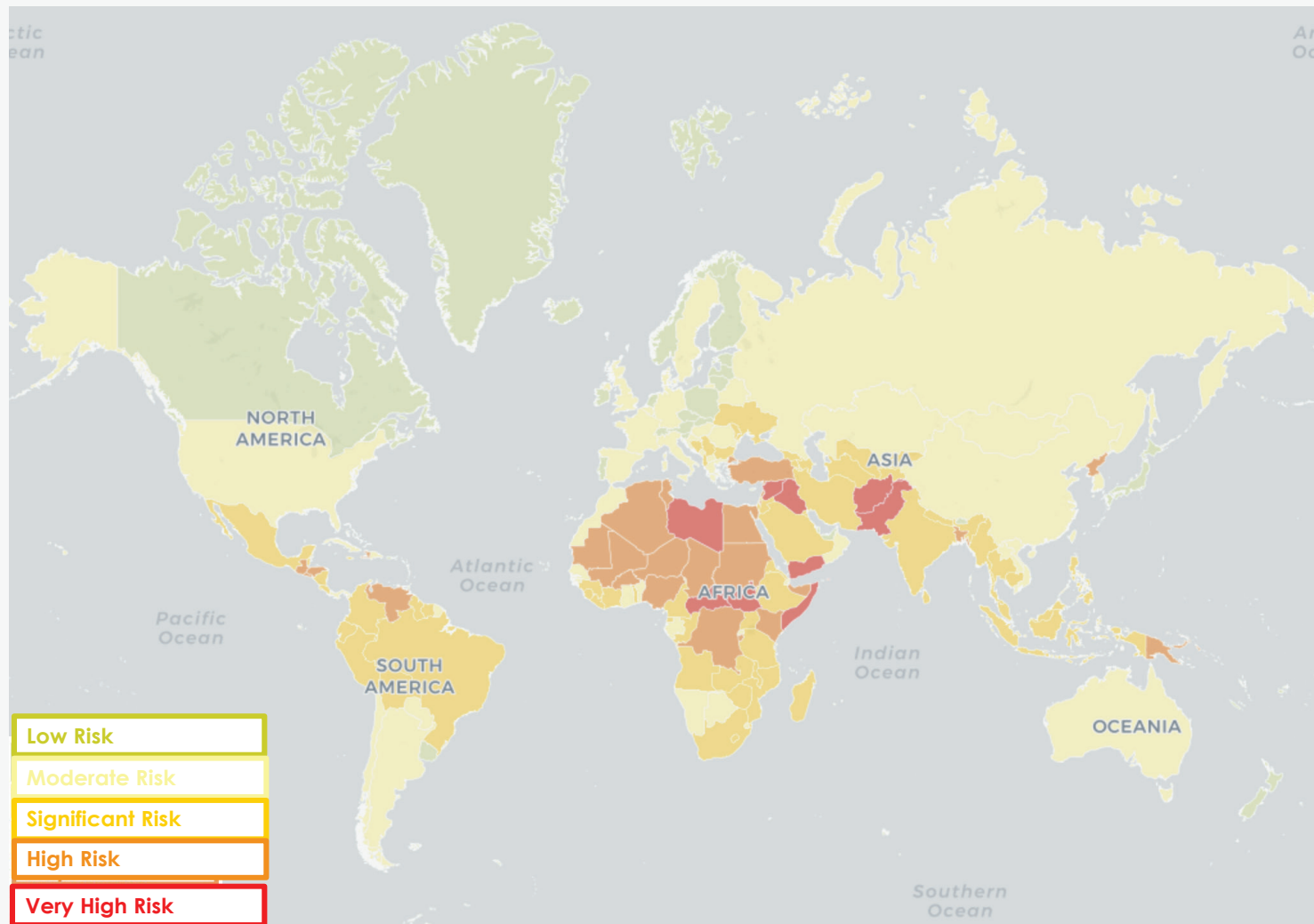
Increasingly powerful jihadist groups

- ▶ The fall of the Islamic State in the Middle East has led, in 2019, to a restructuring and re-focusing of resources to African groups: the “Islamic State” in the Great Sahara (Burkina Faso, Mali, Niger) and the Islamic State in West Africa (Nigeria, Niger, Chad, Cameroon,). Facing numerous other jihadist groupings (161), local armies are under increasing pressure, and the foreign military response (Barkhane, MINUSMA) is increasingly contested locally (162).
- ▶ In northern Mozambique, out of nothing in 2017, an Islamist insurgency - the Shabab - has grown into a powerful organization. In August 2020, the group seized the gas port of Mocimboa, killing over 1,300 people and displacing at least 210,000 (UN figures). This rise in power was made possible by the Shabab's affiliation with the Islamic State / Islamic State Central Africa Province, which organized and trained the Shabab fighters.
- ▶ These movements are embraced because of popular **discontent** (deplorable living conditions), because of hatred towards security services (mistreatment of the population) and the hope of restoring **pre-colonial Muslim states** (163).

From smuggling to armed gangs in the Sahel

- ▶ As illicit activities gradually became highly profitable, and given the number of conflicts in the region, criminal networks in the Sahel have become increasingly structured.
- ▶ In addition to the various factors explaining this situation (new means of transport in the 1960s, technical and human capital, transmission of know-how), the terrible **droughts** witnessed (1969-1973, 1983-1985) were a major reason for the emergence of organized crime: decimation of livestock and crops, disappearance of oasis crops and massive rural depopulation pushed many Sahel inhabitants into the arms of criminal networks. Up until this day, **socio-economic crises** still constitute the breeding ground for these thriving networks.
- ▶ Finally, whereas the increase in customs duties between various countries in the region (particularly Algeria and Libya in the 1970s) encouraged illicit trafficking (cigarette smuggling, hashish trafficking), the growing need to **finance armed struggle** (rebellions, terrorism) in the region ended up institutionalizing these criminal networks. In the poorest regions, they are now the main providers of jobs and easy money (hostage taking) (164).

Figure 32: Global security risk map 2020



Risk intensity is assessed by taking into account the political context, the social context, the level of crime, vulnerability to terrorism, natural and health hazards, and risks related to piracy and maritime robbery.

Source : IRES-processed, GEOS Global Group

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ERSISTENT RISKS (7)

Conclusion

- ▶ The exceptional level of uncertainty that prevails today is paralyzing institutions (governments, organizations, companies) which are used to planning, or at least having some visibility on which to base their action. The 'wait-and-see' attitude is therefore becoming widespread in the hope that things will soon return to normal.
 - ▶ This situation explains the crucial lack of data analysts have to contend with - or blind spots relating to threats other than the pandemic - as well as the opportunities seized by cybercriminals and armed gangs to consolidate their hold and even expand it.
 - ▶ Hence the need to reinforce the **objective surveillance of looming risks** – both on a planetary and global scale. At the end of the year 2020, risk mapping is painting a particularly bleak picture of the world in the years to come.
- ▶ Thus, in the coming years, governments will have to face :
 - ❖ the COVID-19 containment and its consequences,
 - ❖ the impacts of current risks (notably the rise of populism) and of new crises,
 - ❖ the necessary prevention of already identified threats (climate change, disruption of ecosystem services).
 - ▶ Despite these persistent risks, however, the **seeds of a new paradigm shift** are emerging. The growing interest in the well-being of human beings, in the relationship with living beings and, more globally, in the preservation of nature, as well as the questioning of growth requirements, are the main features of this change. Several recovery plans adopted around the world reflect these concerns (Canada, South Korea, France, India, Indonesia, Morocco, the United Kingdom, the European Union...) (165). They could contribute to shaping a more peaceful world in the future.

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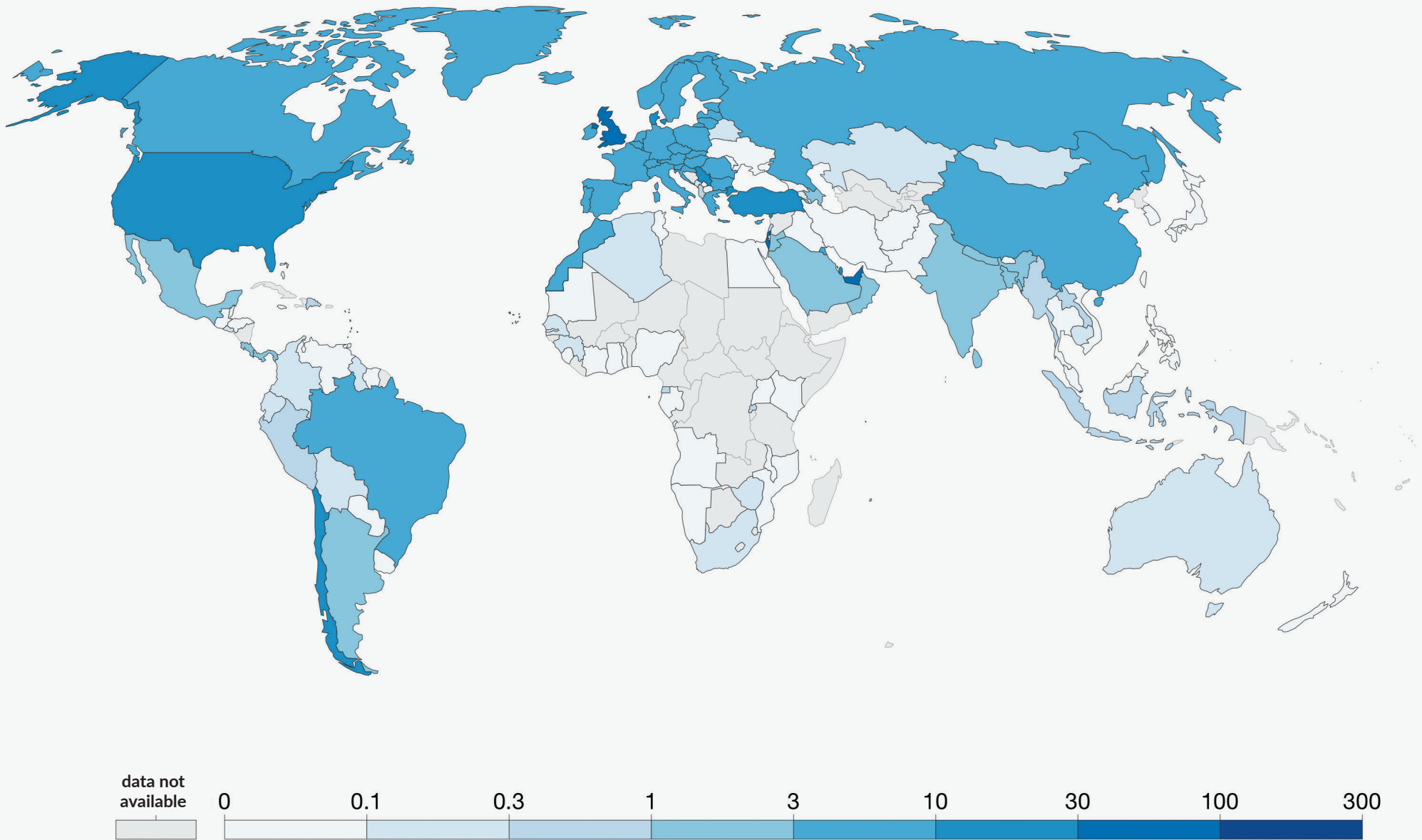
EEP IN MIND

- ▶ A level of uncertainty seldom seen since WWII, which slows down anticipation.
- ▶ A high degree of blindness on the part of the media, which obscures events and risk factors other than those relating to COVID-19.
- ▶ A heightened level of danger in the world due to the effects of the pandemic: splits in public opinion, widespread wait-and-see attitude, economic recession, social tensions, opportunism of terrorists...



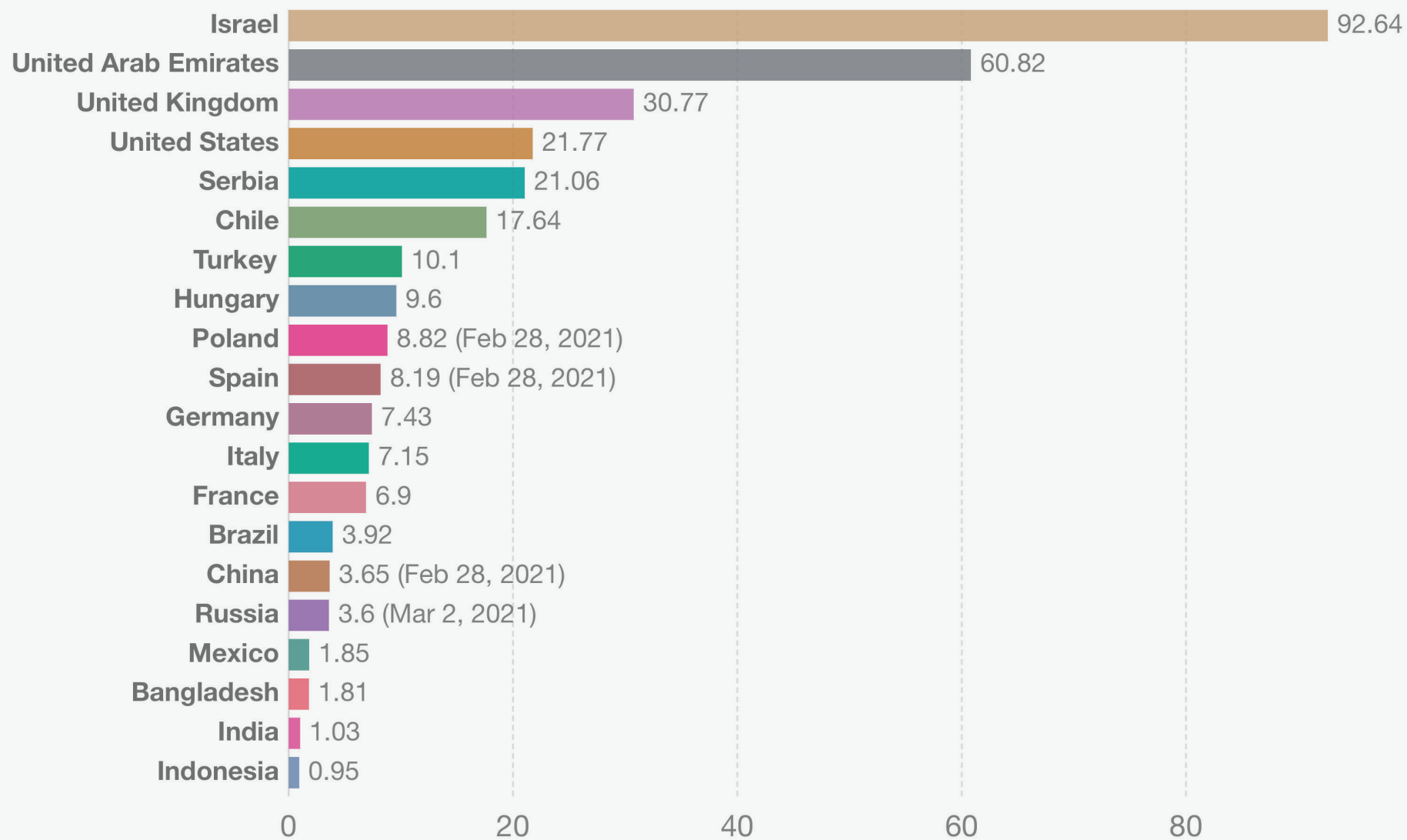
Source :<https://www.aa.com.tr/fr/monde/les-questions-environnementales-en-t%C3%A0te-de-liste-du-rapport-sur-les-risques-mondiaux-2020/1703145>

Figure 33: Deployment of COVID-19 vaccines in the world,
27 February 2021



Source : IRES-processed, Our World in Data

Figure 34: COVID-19 vaccination doses administered per 100 people, as of 27 February 2021



Source : IRES-processed, Our World in Data



CHAPTER 2

SOME STRUCTURING
INSIGHTS

T

HE ISSUE AT STAKE

While the containment measures taken by most governments succeeded in slowing the spread of the virus and reducing the number of deaths, they also froze business activity in many sectors, deepened inequality, disrupted education and dented people's confidence in the future (166).

Above and beyond those facts, there are few certainties despite the many assertions about the post-COVID world. Among these are the decline of globalization, a resurgence of public authorities' power, isolationist behavior, the risks of military action and opportunistic policies... (117).

Four structuring topics relating to the possible transformation of the world that might take place in the next few years deserve to be examined.

The first concerns **the future of globalization**: are we really heading towards de-globalization, as some people claim, or towards a transformation of globalization as we have known it until now ?

The second is **the acceleration of digitalization** which we have seen in 2020: What will be left of it when the pandemic comes to an end? Will there be an evolution or a revolution ?

The third topic is the **ecological transition**: is this a new greening wave, like the ones we have seen in the past, or is it a more profound movement? What is really at stake here ?

The last topic - probably the most important one - concerns **societal transformations**: the lockdown has lifted the veil on certain aspects that were previously taboo or that were deliberately ignored, such as mental health, domestic violence and the quality of education. Are they going to be seriously taken into account, and if so, how?

This chapter does not claim to provide answers to all these questions. However, it seeks to shed light on what is at stake regarding those key components that could shape the world of tomorrow, tackling them from a global perspective, but also from an African and a Moroccan one.

The World post-COVID-19: Plausible scenarios and paradigm

Scenario ②
EQUILIBRIUM

1. Economic pressure to open businesses
2. Relaxation in social gathering
3. 2nd wave of viruses infections
4. Strict measures for social distance
5. Good for nature, self, and others
6. New forms of the world
7. We slow down to speed up

Scenario ④
COLLAPSE

1. Virus mutates and becomes more deadly
2. Nations and Governments blames each other
3. Sates are fighting for their existence
4. Major and long global economic depression
5. Nations break apart
6. Nationalist and populist
7. Capitalism crashes

Scenario ①
BASELINE

1. Partially the virus is under control
2. Gradually opening businesses
3. Zones for traveling
4. A quick recovery (moderate recession)
5. New forms of societies and businesses (small shift)
6. New forms of education
7. Bio-chips, health passports

Scenario ③
TRANSFORMATION

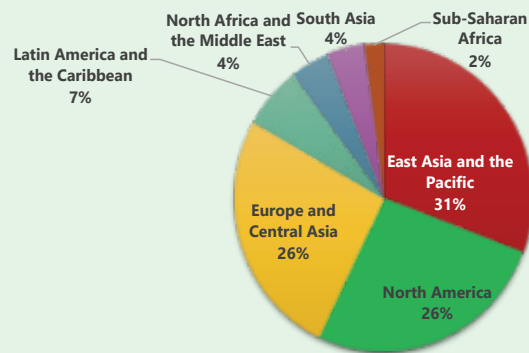
1. Vaccine development through global collaboratio
2. Innovation leads to immediate detection
3. People are eager to go out after the Quarantine
4. Quick recovery in the market
5. Environmental friendly society and businesses
6. Leap in Science and innovations
7. New forms of alliances

Source : Center for Futures Studies, Dubai

Globalization in figures

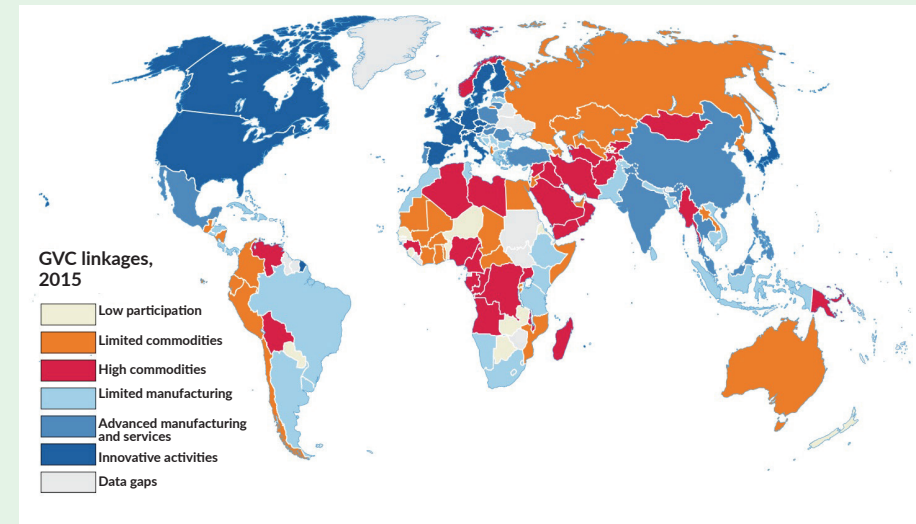
- ▶ Global GDP in 2019 was \$87,799 billion (167).
- ▶ The 10 countries with the highest GDP in the world (the United States, China, Japan, Germany, India, the United Kingdom, France, Italy, Brazil, Canada) account for 67% of global economic wealth. The United States and China alone account for almost 41% of the world's GDP (168).

Figure 35 : Geographical distribution of global GDP, 2019 (%)



Source : IRES-processed, World Bank data

Figure 36 : Country participation in global value chains



Source : World Development Report 2020 team, based on the 2015 GVC taxonomy (see Box 1.3 of the main report).

- ▶ In 2019; international trade in goods and services accounted for 55% of world GDP (169).
- ▶ According to the World Trade Organization, trade linked to global value chains constituted more than two-thirds of global trade (170).
 - ❖ A 1% increase in participation in global value chains translates into an increase in per capita income of over 1%, which is significantly higher than any gain from traditional trade (0.2%) (171).

FROM GLOBALIZATION TO GLOBALITY

Since time immemorial, human beings have charted routes for exchange and trade. After conquering territories and erecting barriers to defend them, communities then tried to go beyond borders and operate on a global scale.

Human beings will thus gradually move from a process of **globalization*** (removal of borders) to a state of **globality**, in which everyone will be able to move, settle, work and live anywhere, in an integrated planet.

Until such a distant prospect becomes reality, globalization is evolving according to three main elements: the economy, society and politics. It is characterized today by free trade, neo-liberalism, a global financial market, cultural homogenization, a global middle class, economic growth that generates growing inequalities and massive environmental predation.

This face of globalization is clearly at odds with the concept of sustainable development. That is why aspirations - at times conflicting ones - for **other forms of globalization** have emerged in recent decades.

Because the pandemic brought global growth to a standstill, and considering the stunning fragility of the economies of both developed and emerging countries, the current globalization model **has come under harsh scrutiny**.

Triple globalization

- ▶ To better understand the fundamentals of this development, it is important to distinguish, first, between the three aspects of globalization - political, economic and societal - because they may evolve in opposite directions in the future

▶ Political globalization is based on :

- ❖ an **American leadership** rooted in strong cultural hegemony (language, way of life, cultural industry),
- ❖ a **Concert of nations** organized and structured around intergovernmental institutions (UN) in permanent search of a consensus, which often proves to be paralyzing, but which contributes to reducing armed conflicts on a global scale,
- ❖ a (new) political **paradigm** according to which economic growth must henceforth come before the 'Westphalian' concept of national sovereignty, since economic interdependence is presumably the best guarantor of peace ;
- ❖ development of **freedom** of action and **democracy**. Democracy Index 2020, drawn up by the Economist Intelligence Unit, indicates that 70% of the 165 countries covered recorded a decline in democracy. In 2020, the Democracy Index was at its lowest level since its creation in 2006. In many countries, the protracted crisis and the intrusive measures taken to stem the spread of the virus are undermining the democratic gains made in recent decades.

- ▶ Hence the emergence of the notion of **soft power*** and the appearance of influential non-state entities such as the World Economic Forum (Davos), but also the obvious incapacity of the United Nations to impose itself as the world's armed wing (peacekeeping soldiers) - internal political paralysis and blind spot - and the extensive damage caused by **armed groups** (see Focus no. 5) or by 'rogue states'*.

F

FROM GLOBALIZATION TO GLOBALITY (2)

► **Economic globalization** is characterized by :

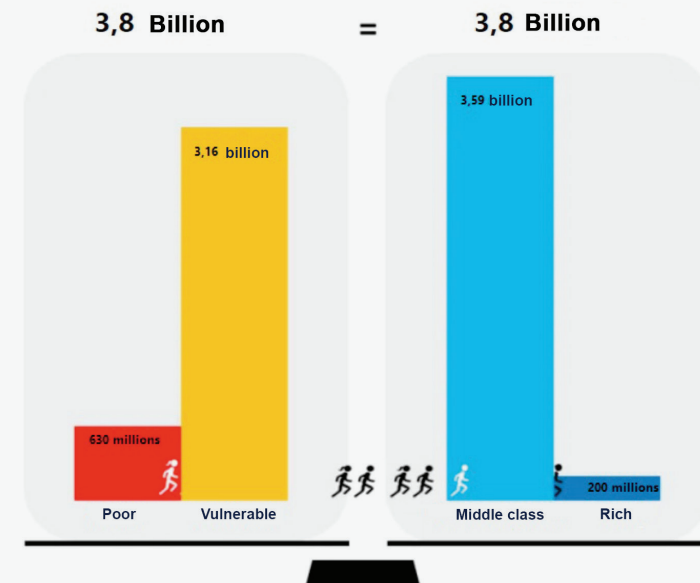
- ❖ the growing **interdependence** of national economies thanks to the cross-border movement of goods, services, technology and capital,
- ❖ the development of **global markets**, made possible by communication technology (transport, ICT, foreign direct investment and the internationalization of standards (quality, norms). Among these markets, financial markets have developed exponentially, to the point that finance has significantly moved away from the domain of the real economy,
- ❖ the emergence of **new actors** (multinational corporations) and **new spaces** (free trade areas, common markets),
- ❖ a **neo-liberal*** ideology (a capitalistic, imperialistic one) that is prevailing over the democratic model which the proponents of societal globalization are trying to impose (172),
- ❖ **development aid policies** (International Monetary Fund and World Bank) aimed at generalizing the neoliberal model, whose validity is challenged because of its results.

► The resulting **integration** is :

- ❖ **countries**: between those which have full access to this globalization (called developed countries), those which do not yet have access to it, but provide its means (raw materials, low-cost labor) and those which are in transition (called emerging countries),

- ❖ **citizens** in three income categories: a growing elite that can accumulate capital, a proletariat, whose labor power is all it has, and a growing middle class (mainly in Asia), but which has become more precarious in the West (51) (see figure n°37).

Figure 37: Global income tipping point, September 2018



Source: Projections by World Data Lab (52)

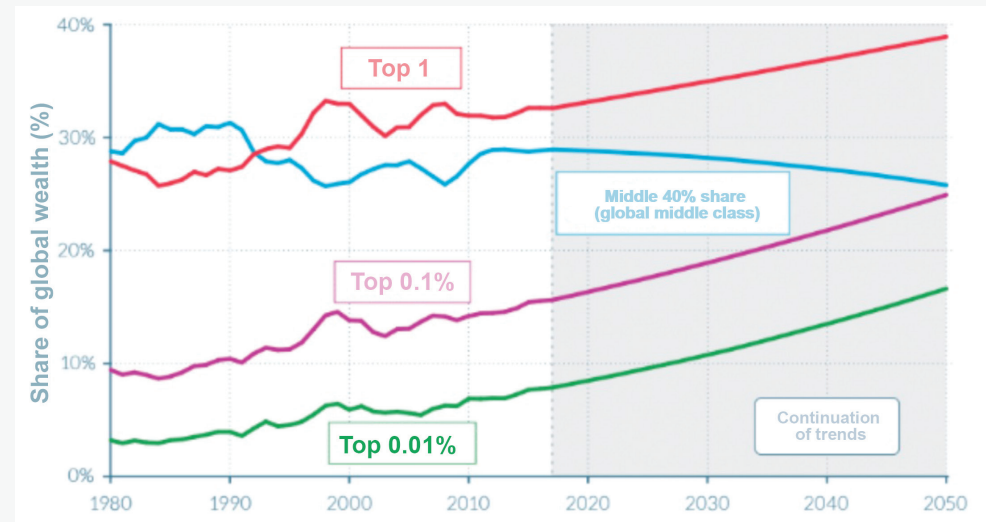
Before the COVID-19 pandemic, every second about one person escaped extreme poverty, and five others moved into the middle class. Every two seconds, one person from the middle class became rich.

FROM GLOBALIZATION TO GLOBALITY (3)

► **Societal globalization**, which concerns all dimensions of human activity, has led to the emergence of three phenomena (174):

- ❖ Growing human development (average life expectancy and literacy on the rise, declining infant mortality and extreme poverty) has translated into global enrichment and a general increase in the level of well-being, despite growing inequalities, both interstate and within countries.
- ❖ A global middle class is therefore gradually forming: it is nurtured by a globalized culture promoted by media relays (pop culture, film production, etc.) and by the circulation of goods and people around the planet (consumerism, neo-nomadism*). This middle class manages to reconcile the tensions inherent to globalization (between similarity and difference, universalism and particularism, global culture and local culture) thanks to physical mixing (multiple citizenship) or cultural cross-fertilization (cosmopolitization, 'de-territorialization' of cultural belonging).
- ❖ An awareness of the planetary dimension of the world embodied by the emergence of objects that are common to humanity - which call for new modes of regulation on a global scale (climate justice, for instance) - and by the need to ensure sustainability.

Figure 38 : Share of global wealth, 1980-2050
Towards a shrinking of the global middle class



Source : LAC Equity Lab tabulations of SEDLAC (CEDLAS and the World Bank) and World Development Indicators (WDI), 2018

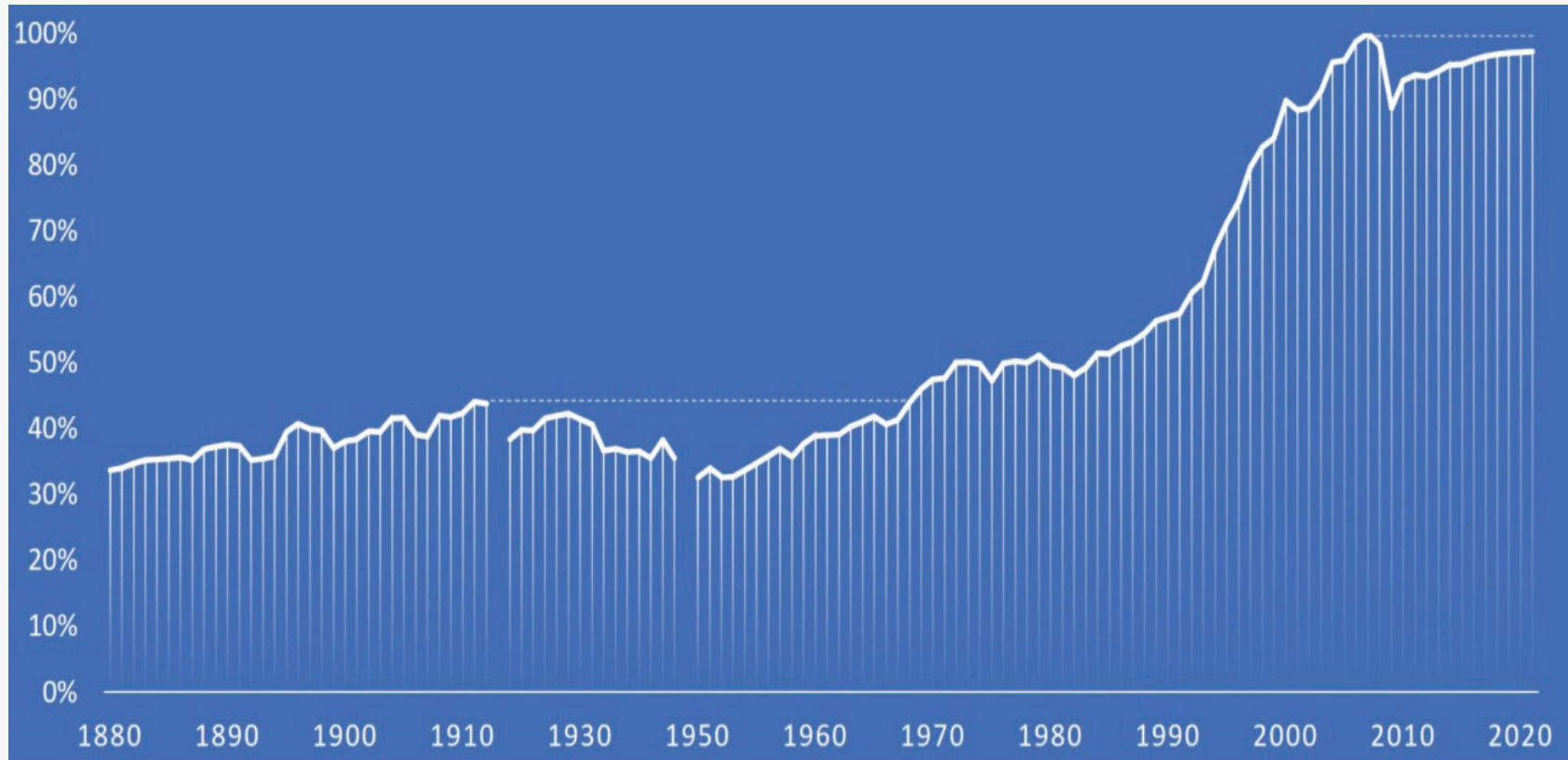
Post-COVID globalization: the future of all possibilities

Several scenarios have emerged during the pandemic, each reflecting different, yet interrelated, aspects of the situation. They are useful in that they show where the alternatives lie, but the future that will emerge will probably borrow elements from each of them (175).

- ▶ **Collapse of globalization:** States are no longer able to come to a mutual agreement at the global level and are withdrawing into themselves (growing tensions between the United States and China). Protectionism is becoming inevitable to preserve failing local economies. International travel is collapsing. Retreat into nationalist perceptions of identity is gaining ground, driven by the rise of nationalist parties.
- ▶ **Consolidation of hyper-globalization*:** to avoid global economic collapse, states are showing unexpected solidarity. The winner of this is neo-liberalism: a massive global debt is offset by continued liberalization of world markets and a regression of global regulation. Hyper-competitiveness is deepening inequalities and reinforcing the exploitation of the South by the North.

- ▶ **A fragmented world:** weakened by governance issues and the deterioration of economic performance, American leadership is collapsing. Europe is disintegrating under the pressure of a series of “exits” (Brexit, Grexit, etc.), and Africa is becoming endogenous. China’s political and economic power is predominant, rounding off the fragmentation of a world that was once witnessing an integration process.
- ▶ **De-globalization*:** hyper-globalization is significantly declining, first with the continued decline of financial integration, which was damaged by the 2008 crisis. Integrated global supply chains are not being rebuilt after the pandemic since governments prefer to secure their strategic supplies. Under pressure from their citizens, most governments are emphasizing greater national autonomy, putting a premium on more local approaches - even the relocation of certain activities. A power struggle is underway to tax the GAFAs* in order to promote investment in decarbonization, but above all to ensure the repayment of the debt. Global growth is reduced on a lasting basis.

Figure 39 : Globalization et deglobalization 1880-2022 (openness of the world economy index numbers: 2008=100)



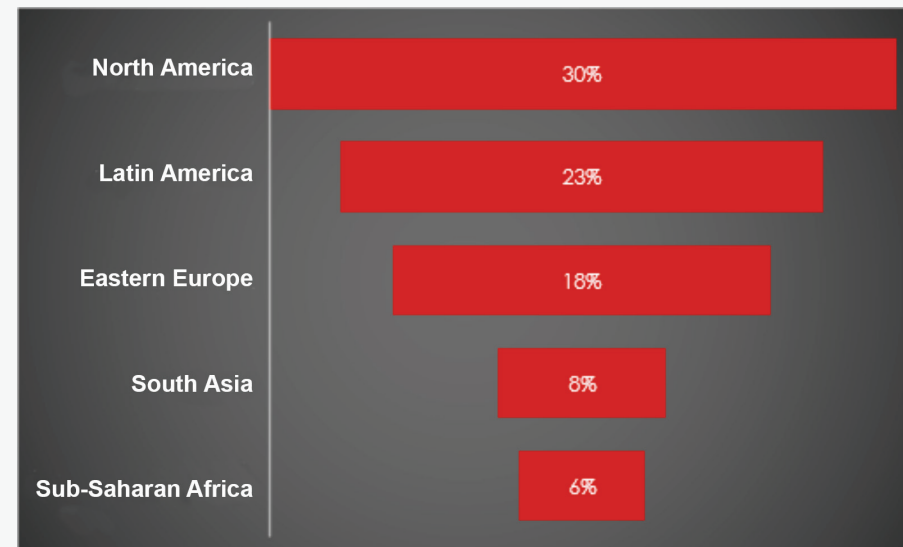
Source : Peter A.G. van BERGEIJK (gull professor of Macroeconomics and International Economics, Cambridge University) - Own work, CC BY-SA 4.0

The graph shows two periods of deglobalization (1930s and 2010s) alongside the trend increase in globalization since 1880.

Trend evolution

- ▶ As in any crisis, **time** is the crucial factor which determines the extent of the changes to follow. The shorter the crisis, the more resilient human societies will be, returning to their usual habits and ways of doing things as soon as the crisis is over. Conversely, if the crisis lasts long enough for new habits and ways of doing things to take hold - as a result of adaptation - they will probably persist.
- ▶ The globalization phenomenon was already changing when the two severe waves of the pandemic (spring and fall 2020) strongly affected it. It is likely that the trend of ending hyper-globalization will continue. The way the following four change factors will evolve will determine its future shape (176).
- ▶ **Telework**, for those who have the possibility to engage in it (employers, legislation, type of work, personal capabilities and environment), should have gained lasting ground, leading to new managerial methods, increased digitalization, new distribution of traffic flows, and even a new construction design philosophy. As a catalyst of the gig economy*, the impact of telework on the evolution of globalized services is significant. It could also make new countries prime players in terms of **employability** and **entrepreneurial attractiveness**.

Figure 40: Telework potential by region:
Share of employees in teleworkable occupations (%), 2020



Source : IRES-processed, Working from home: Estimating the worldwide potential. Janine Berg, Florence Bonnet, Sergei Soares. VoxEU – CEPR. 11 May 2020

F ROM GLOBALIZATION TO GLOBALITY (6)

▶ **Reduced international mobility** could last due to the combined effects of growing ecological awareness, of the difficult recovery of global air transport, of the economic hardships of the middle classes and the understandable interest of companies in rationalizing travel expenses (business travel). This would have a particularly negative impact on global growth because of the two key economic sectors involved: international tourism and air transport. However, the propensity for mobility in human beings is such that the recovery will happen, sooner or later.

▶ **The continuing rise of Asia :**

❖ Unlike all the other major countries, China's economy expanded by 2% in 2020 relative to 2019 (see Focus no. 6). Thus, it is coming out stronger from the global crisis, with a trade surplus at its highest level since 2015 (+25% compared to 2019), thanks to strong global demand, particularly for masks and electronic items. Among the structural reasons for this economic growth :

- work resumed in China's industrial sector earlier than in other countries, with social distancing easier in factories than in the service sector ;
- the shift for the promotion of high-tech state capitalism and increased self-sufficiency to meet growing domestic demand;
- Finally, China is on its way to becoming the fourth largest service exporter in the world (177).

❖ At the same time, in 2019, India became the 5th largest economy in the world; Vietnam and Thailand are benefiting from Sino-American trade tensions, offering a viable alternative in terms of diversification of supplies. Thus, Asia (both emerging and developing countries) could record an 8% growth rate in 2021, far ahead of the other economic blocs (178).

Figure 41 : China: Real GDP growth composition: Economic growth rate and quarter-on-quarter contribution to growth (%)



Source : IRES-processed, data from the National Bureau of Statistics, China

China : Taking the lead

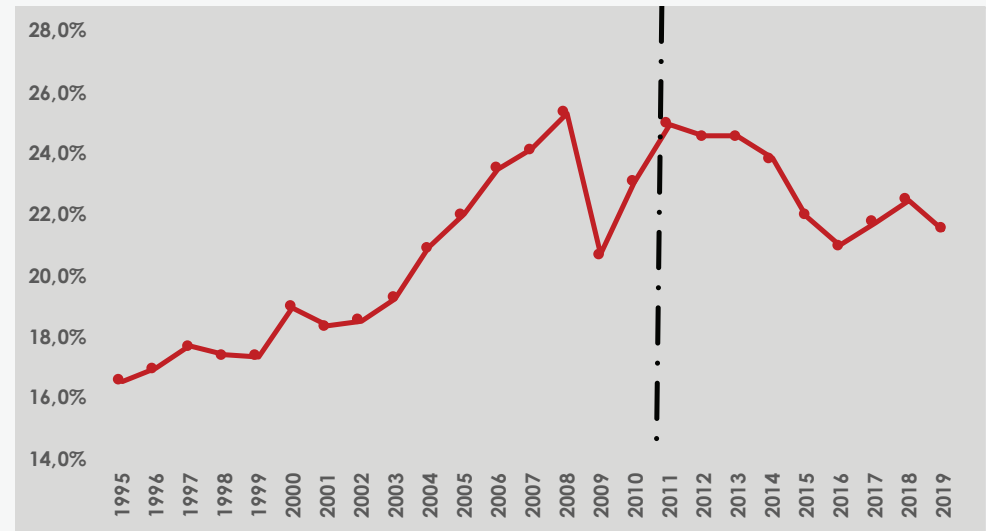
- ▶ In October 2020, while most countries were struggling with the advent of a new COVID-19 wave and were mired in recession, China seemed to have recovered from the pandemic thanks to a V-shaped rebound. Schools are open, factories are humming and restaurants are full again (179). As early as the 2nd quarter of 2020, China was back to its pre-pandemic level of activity, posting a 2% economic growth rate for the year 2020. By the end of 2021, China's real GDP growth is expected to stand at nearly 8%, up from the 6.1% in 2019 (180).
- ▶ The reasons for this success are basically due to the following mix: a strong central state and a dynamic export-oriented market economy, and more specifically :
 - ❖ the absence of a “second strike” of the virus, which spared China but affected many other countries,
 - ❖ the choice of recovery factors: preferring industrial production and investment to consumption. This enabled China to achieve record export figures during the pandemic (181),
 - ❖ the country's highly industrial economic structure: it is easier to ensure respect for social distancing in factories than in the service sector.
- ▶ In a global context of accelerated digitalization of the banking industry, which may well lead to the total disappearance of paper currency (60), China's future economic development seems to be guaranteed today by its mastery of the **Fin Tech industry** (see the record Ant Group IPO) (182).
 - ❖ Tested in four major Chinese cities, including Suzhou and Shenzhen, the digital yuan should be launched in 2022, according to the Central Bank of China.
 - ❖ The originality of the People's Republic of China's cryptocurrency (DCEP: Digital Currency Electronic Payment) lies in the fact that it is not a new form of decentralized currency - like bitcoin or etherum, which are secured by the blockchain - but rather a national currency issued by the Central Bank, in the same way as the current fiduciary currency, and it will be distributed by banks and payment companies.
 - ❖ This crypto currency will be put into circulation through electronic wallets with a set maximum value at first in order to maintain the pre-eminence of banks for important payments. Thus, everyone could use their phone rather than their bank, with all the cyber-risks involved...
 - ❖ Eventually, the cost of money should fall as paper currencies disappear, and the DCEP might be adopted at international level. The African continent may well be the first to be inspired by this new monetary model.

FROM GLOBALIZATION TO GLOBALITY (7)

The **reconfiguration of supply chains**, or even global value chains: it started in the early 2010s with the development of automation, which makes offshoring less attractive, and of just-in-time (e-commerce), which works better with suppliers who are closer. Given the effect of the tsunamis in Japan and Thailand, long supply chains became risky and were abandoned, and a focus on regional blocs was preferred. As many companies realize their dependence on China through the experience of the pandemic, this could lead to a change in production settings for 16% to 26% of exported goods in the next five years (183).

The **'slowbalization'*** resulting from the decline in the share of trade in world GDP (see Figure 42) should thus accelerate over the next few years. The relocation of markets will gain ground under the combined effect of trade wars, the anticipation of new risks, and the growing concern of businesses for their ecological footprint and for labor standards. The extent of global economic integration is such today that a scenario of a slowdown of hyper-globalization seems more likely than that of massive de-globalization (184).

Figure 42 : World merchandise exports as per cent of GDP



Source : IRES-processed, data from the World Bank and the United Nations Conference on Trade and Development

Thus, the baseline scenario emerging today for the coming decade is that of a less globalized, less equal and more digitalized world :

- ❖ **Production** will be closer to manufacturers, who will be anxious to reduce supply risks and accelerate their automation; this would offer a new opportunity to sub-national territories and neighboring emerging countries (Mexico, Morocco, Turkey, ...). Production would also get closer to more concentrated regional markets which are conducive to the development of online activity (e-commerce in particular).
- ❖ Given the bankruptcies caused by COVID-19, new **jobs** will have to be rapidly created to stem unemployment, otherwise massive social movements could occur. Work flexibility and digitalization will become essential, leading to new inequalities within communities, between those who are “technology literate” and the others.
- ❖ Economic **convergence** between developed and developing countries should continue to slow down. More importantly, inequalities could increase within regional blocs, leading either to break-ups (disagreements) or to their consolidation (solidarity) (185).

Towards globality ?

Could this ‘slowbalization’, which is spurred by the pandemic, actually be indicative of a new degree of maturity rather than a deterioration in globalization ?

- ▶ The third wave of globalization (1990-2010) - known as hyper-globalization - has had a **positive** impact on the world as a whole: lower prices, allowing access to more goods and services (especially transport and telecommunications), improved human development indicators, emergence of developing countries, etc, ...
- ▶ Nevertheless, the 2020 crisis has clearly exposed the **flaws inherent** in this acceleration: widening of inequalities at a faster pace between and within countries; impotence of global governance, both politically and economically (United Nations, World Trade Organization, Doha Round); excessive ecological footprint which is dooming the sustainability of this model...

F FROM GLOBALIZATION TO GLOBALITY (9)

- ▶ Therefore, could the turning point awaited by alterglobalists (see Focus n°7) finally happen? The purpose here is not to reduce growth, but to limit and better control its adverse effects, by advocating, in particular, interstate **solidarity** and renewed international **cooperation** (186).
- ▶ In that case, this new globalization would have another objective than growth per se: it would be based on a proactive desire **to fulfil a shared vision and to give meaning to progress**. That vision is already being championed by a wide range of groups calling for greater equality and social justice, a protected planet and restored nature, and rapid adaptation to climate change (sustainable development).
- ▶ This new wave of globalization, which would be slower, due to the increasing endogenization of African countries in particular by 2050, but which would also be more circumspect, would enable many developing countries to actually **choose their future and how to get there**. Thus, those who choose global integration could structurally prepare themselves for global economic competition by truly supporting all segments of their population, while others could serenely opt for endogenization* (187).

Box 6: A perception of globalization: vulnerability and upheavals

The coronavirus pandemic has opened the eyes of our globalized society to its profound fragility and has ingrained in people's minds the certainty that it is only through concerted action that we can overcome it and move forward.

Thus, when the health crisis was in full swing, a need for unity and solidarity started emerging - solidarity between states and nations, and solidarity within countries, between social classes and generations.

COVID-19 has shone a spotlight on the limits of ultraliberalism and individualism. Market rules alone can no longer govern the world.

Fathallah OUALALOU (188)

Globality: the new face of post-COVID globalization ?

A longstanding quest for a different globalization

- ▶ Over and beyond the various scenarios betting on the future of the current globalization, reflections on a different form of globalization are being more actively heeded. The perspective is changing, going from possible futures to desirable futures.
- ▶ The movement for a different kind of globalization (alter-globalization) became a reality in January 2001, at the World Social Forum, at Porto Alegre (Brazil), putting forth demands for global justice and sustainability.
- ▶ Over the past two decades, the movement has discussed and contributed modeling concepts, some of which do resonate with the current discourse (189) :
 - ❖ **Localism**, based on behavioral changes, would permit a shift from a nomadic, 'de-territorized' life linked to the globalization of markets, to autonomous, re-localized communities in a post-growth society.
 - ❖ **Cosmopolitanism**, which is the result of interactions between institutions, states, NGOs, businesses and civil society, leads to the generalization of democracy and the advent of global governance to solve planetary problems.
 - ❖ Post-development refers to endogenous development freed from colonialism, which caters for spirituality, health as well as the economy, and which is based on autonomous innovation and community development
 - ❖ Reformed liberalism builds on institutions to help the poorest (states and individuals alike) and relies on science and technology to solve problems, like achieving UN goals.
 - ❖ Dematerialized global networks, seem to be an alternative to capitalism thanks to the sharing economy*, the commons* and the self-organization of their members. They thus contribute to the emergence of the prosumer.
 - ❖ Co-evolution, which is both a cosmological and ecological vision, promotes co-evolution to achieve cross-species sustainability, based on consciousness, technology and design*.

Could one of these movements embody the future of globalization? In fact, the future seems more kaleidoscopic than that. For one thing, a number of basic tenets underpinning globalization cannot be reversed, let alone disappear, in the short term. Second, the very essence of the demand for a different kind of globalization is based on the end of a hegemonic vision and culture that prevail over the others.

Globality: the new face of post-COVID globalization ? (2)

Globality: some key features

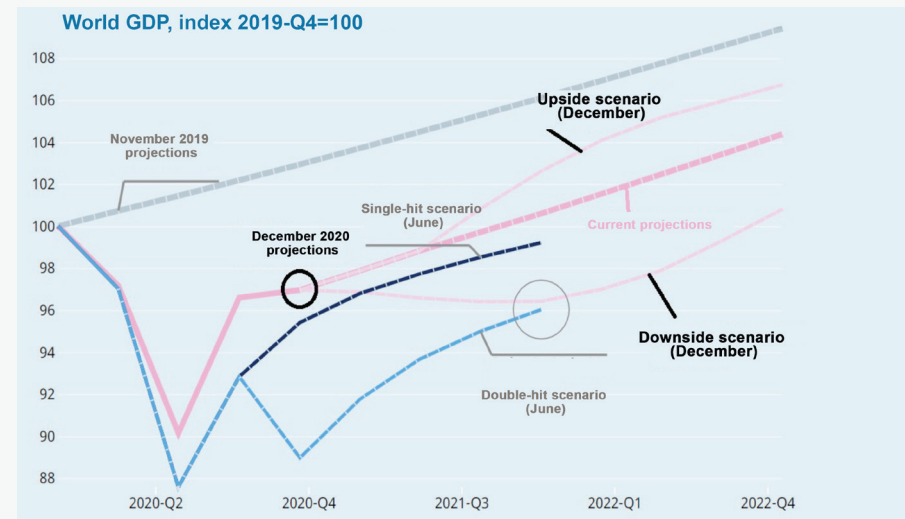
- ▶ Greater, revisited **global governance** based on more solidarity between nations and on non-economic cooperation in areas such as public health, environmental governance and education.
- ▶ A **green globalization** imposing a carbon tax at the borders.
- ▶ **Reduced dependence** of national economies on a single power (China today) through diversification of supply sources and the building of strategic food, medical and energy reserves.
- ▶ A new **development model** combining endogenization (development of a domestic market on a priority basis) and globalization, so that exports would continue to drive growth where domestic markets are not yet large enough to sustain development.
- ▶ Accelerated **regional integration**, especially in developing countries, in order to create larger markets.
- ▶ **Greater distribution of wealth**, particularly in economies based on rent-seeking, to benefit both the more educated middle classes and a new domestic market.
- ▶ **Services** are the new linchpin of development, instead of industry; they are promoted by the reduced amount of tied-up capital required and by the exponential expansion of high-speed, interconnected information and communication technology worldwide.
- ▶ The expansion of the world's educated population is fuelling the development of the **gig economy** (self-employed, freelance), a globalized, platform and mission-based labor market, which is the only market capable of absorbing the large number of young workers in developing countries and of meeting the aspirations of digital nomads.

T

HE OUTLOOK IS BECOMING CLEARER, BUT THE RECOVERY WILL BE GRADUAL DUE TO THE UNCERTAINTY SURROUNDING THE PANDEMIC

- ▶ A recovery of the global economy over the next two years: global economic growth expected to stand at 4% in 2021 and 3.8% in 2022 (180).
- ▶ However, the economic recovery will not be homogeneous in all countries; this could have a lasting impact on the global economy.
- ▶ Moreover, the outlook remains uncertain; growth rates may be revised upwards or downwards, especially if vaccines are not distributed to all countries affected by the pandemic.

Figure 43 : Quarter-on-quarter global GDP forecasts



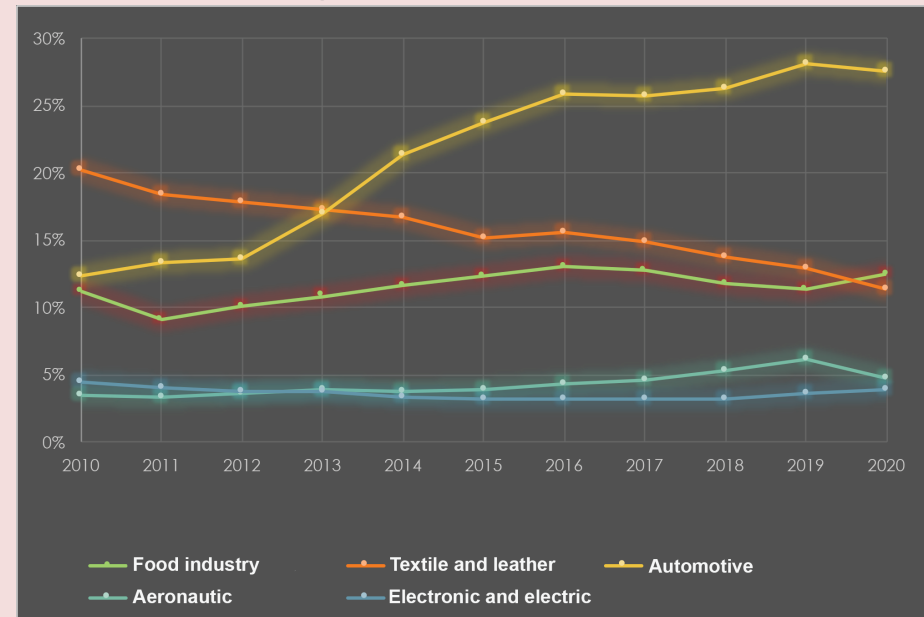
- ❖ Single-hit scenario: a second wave is avoided
- ❖ Double-hit scenario: a second epidemic wave occurs before the end of 2020
- ❖ Upside scenario: effective vaccination campaigns and improved international cooperation for vaccine distribution

What future for Morocco's world crafts ?

Introduction

- ▶ As part of a broad program of actions aimed at improving its competitiveness in order to upgrade its industry to global standards, Morocco has opted for the development of world crafts. Those include: automotive, aerospace, agribusiness, textiles and leather, electronics, as well as offshoring.
- ▶ The various industrial strategies adopted by Morocco, namely the National Pact for Industrial Emergence - Emergence Plan I (2005) - the National Pact for Industrial Emergence (2009) and the Plan for Industrial Acceleration (2014), have triggered a real dynamic in some sectors (automotive and aerospace).
- ▶ However, 2020 saw a general slowdown in the share of Morocco's world crafts exports in the country's total exports (see graph opposite), with the exception of the food industry.
- ▶ Now is perhaps the time to consider the future of Morocco's world crafts in the coming decades in order to make the necessary shifts as soon as possible...

Figure 44: Evolution of Morocco's share of global trade exports in the country's total exports between 2010 and 2020 (%)



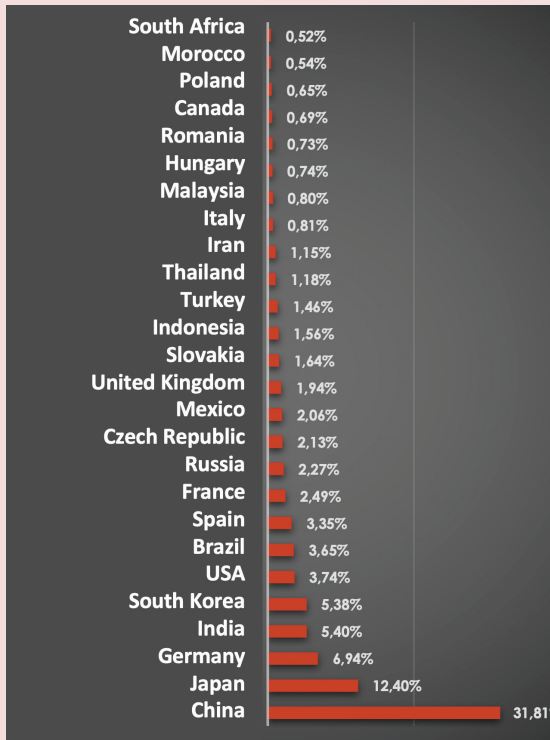
Source : IRES-processed, Foreign Exchange Office data

Morocco's world crafts: the automotive industry

A competitive industry

- ▶ Considered a strategic sector, the Moroccan automotive industry, which has been regularly expanding, became, leading export sector. In 2014, the Kingdom's.
 - ❖ Its average annual share is 25% of the value of total exports over the period 2014-2019 (190).
 - ❖ It has created nearly 150,000 jobs between 2014 and 2019, accounting for 27% of job creation in the industrial sector (191).
- ▶ The Kingdom has thus joined, in a few years, the exclusive circle of car producers. In 2019, Morocco ranked 26th in the world for the production of passenger cars and ranked 1st in Africa (192).
- ▶ The commissioning, in 2019, of the PSA Kenitra plant will enable Morocco to reach an annual production capacity of 700,000 units by 2023.

Figure 45 : Outsourcing of passenger car production worldwide (%), 2019



... still attractive despite the pandemic

- ▶ The slowdown in global trade during the year 2020 led to a 10% decrease in export sales for the Moroccan automotive sector.
- ▶ However, as of the beginning of 2021, new foreign investments have reinforced Morocco's good reputation among global automotive leaders.
 - ❖ Two memorandums of understanding were signed on 12 January 2021 with the Japanese groups Yazaki and Sumitomo, for the creation, in Morocco, of four factories for the production of cable harnesses (193).

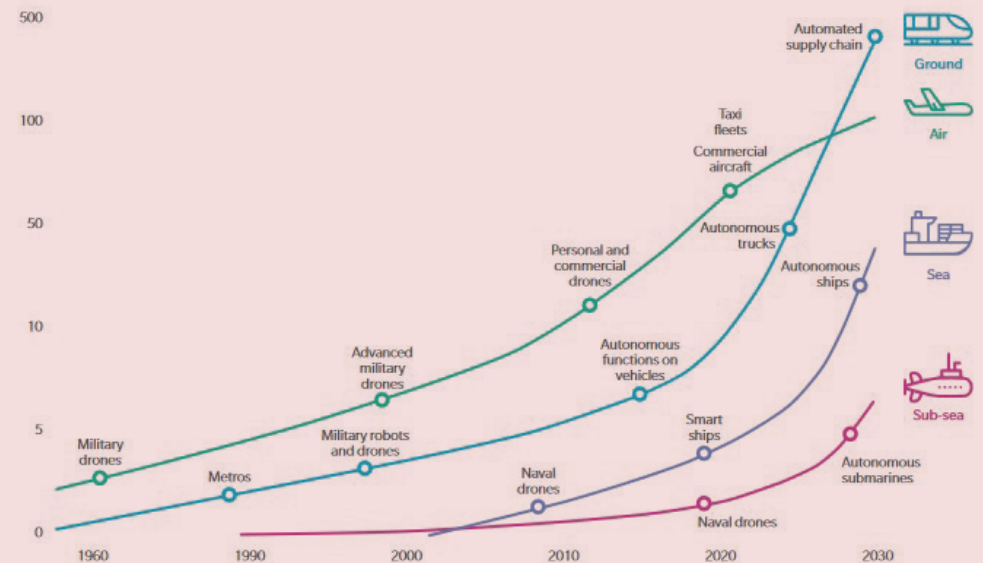
According to the International Organization of Motor Vehicle Manufacturers, nearly 56% of global car production is offshore; China captures 32%. Of the 2% captured by the African continent, 1.1% is shared by Morocco and South Africa (194).

Morocco's world crafts: the automotive industry (2)

New global perspectives

- ▶ The global situation in 2020 has accelerated three trends with a direct impact on the automotive industry :
 - ❖ The slowdown in global growth (slowbalization).
 - ❖ The ecological transition (standards, regulations, consumer expectations) which concerns both energy and materials.
 - ❖ Technological developments: man-machine interface, well-being technologies, autonomous vehicles, electric or hydrogen propulsion, green batteries, etc, ...
- ▶ The economic crisis caused by the pandemic has also prompted a desire to restructure global value chains, leading to a shortening of the supply chain and a possible relocation of certain activities in the automotive sector to Europe. Morocco's position in this regard should come out reinforced.
- ▶ The ability of the Moroccan automotive industry to remain competitive and attractive over the coming decades is therefore strongly linked to the sector's ability to anticipate and adapt to these new prospects.
 - ❖ As a producer of cobalt - a key component in the production of electric batteries - Morocco could build specific expertise in cobalt processing.
 - ❖ Green batteries, electric vehicles, autonomous vehicles, artificial intelligence, man-machine interface... all of these are areas in which Morocco can and must engage.

Figure 46 : Size of the autonomous vehicle market, logarithmic scale (\$ billion)



Source : The Mobility Revolution (?) Oliver WYMAN. Marsh & McKLENNAN COMPANIES. 2018

The shift to self-driving cars, which began in the last five years, is accelerating: nearly 16% of all vehicles will be self-driving by 2030 (195).

The future pre-eminence of the supplier of digitalization (artificial intelligence) over the producer of the automobile is being confirmed (196), spurring start-ups that export advanced digital solutions for a market that has turned global.

Morocco's world crafts: the aeronautics industry

A sector in full swing...

- ▶ Since the turn of the century, Morocco has managed to build a high-quality, diversified and competitive aeronautics ecosystem (197), as shown by the following :
 - ❖ an average annual growth of 14% in export sales over the period 2010-2019 (190),
 - ❖ more than 142 companies operating in the country, including Boeing, Safran, Hexcel, Eaton, Alcoa and Stelia,
 - ❖ the creation of nearly 11,316 direct jobs over the period 2008-2018,
 - ❖ the development of new high value-added businesses: wiring, mechanics, aeronautical sheet metal smithing, composites, mechanical assembly, etc...
 - ❖ 38% manufacturing of a complete aircraft (198).
- ▶ This established expertise enables Morocco to capture some of the activities that the aerospace sector intends to relocate, after being forced to close several plants abroad.

... which has been moderately affected by the 2020 crisis

- ▶ The COVID-19 pandemic brought global air traffic to a screeching halt :
 - ❖ Because of containment measures and border closures, global passenger numbers fell by 66% in 2020 (199).
 - ❖ The sector's turnover declined 60% between 2019 and 2020, a loss of nearly US\$120 billion (199).
- ▶ The repercussions on the Moroccan aeronautics industry were quickly felt, but only moderately :
 - ❖ 29% decline in export sales between 2019 and 2020 (C), compared to a global average of 50% (198).
 - ❖ 10% job losses, compared to a 43% global average (198).
 - ❖ The sector is not expected to return to its 2019 level before four years due to the heavy losses that the two global giants, Boeing and Airbus, will have to wipe out (production reduced by a third).

Morocco's world crafts : the aeronautics industry (2)

Possible keys to a new lease of life

- ▶ The global aeronautics sector is looking for ways to get through the next few years, while waiting for air traffic to resume growth. The avenues for **diversification** concern defense, security, innovative drone uses, the space industry, dismantling...
- ▶ In Morocco, it is essential, first, to make sure the highly specialized workforce - which is the sector's strength - does not lose its skills. This is an opportunity to develop **new training programs** on technical aspects that will be essential in the future: motorization, the type of the fuel, the shape and size of the wing, the lightening of design and materials, ... The *Institut des Métiers de l'Aéronautique* (school of aeronautical professions) is already working on this (200).
- ▶ The second key is to take advantage of the slowdown in production to focus on improving operational efficiency - especially Maintenance, Repair and Operations (MRO*) - as well as the deployment of digital capabilities and new work methods.

Prospects for a leapfrog

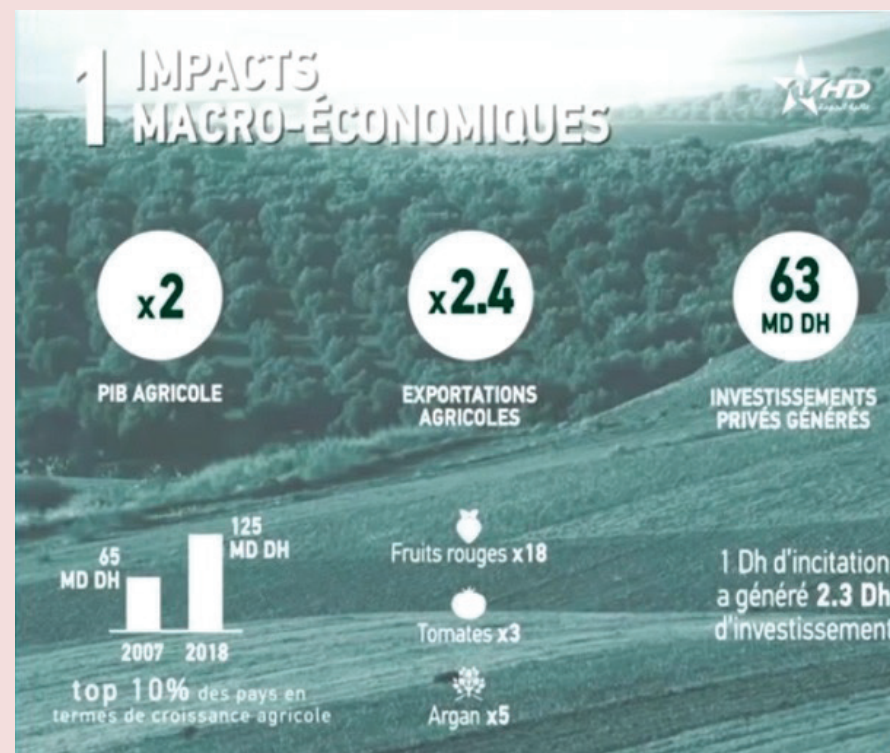
- ▶ The aeronautics sector is already undergoing a profound transformation :
 - ❖ The end of wide-body aircraft in favor of single-aisle aircraft (*the Airbus A320, for example*), for which orders have skyrocketed in 2020, and the deployment of business supersonics.
 - ❖ The reduction in the number of owner-operator fleets (and their subsequent rejuvenation, with the oldest aircraft being the first to be retired) in favor of leasing: the share of leasing companies in the world's commercial aircraft fleet should exceed 50% by 2023 (201).
 - ❖ The transformation of supply chain management, in favor of the "pull" model (demand-driven rather than supply-driven) and integrated management processes, in order to overcome the *white tail problem** (202).
 - ❖ Accelerating the deployment of Industry 4.0 (smart manufacturing) and drastic reduction of carbon dioxide emissions, in a context of relatively cheap oil.
- ▶ The resilience of the Moroccan aeronautics industry could enable this sector to make a real leap forward by starting this transformation today. Diversification into the drone and dismantling sectors could turn out to be particularly promising.

Morocco's world crafts : the Agribusiness

A key sector which is growing and resilient

- ▶ The government has paid particular attention to the development of agribusiness, integrating this sector into the agricultural strategy (Green Morocco Plan) and in the country's various industrial strategies.
 - ❖ The presence of more than 2,600 operators, with a strong contribution to job creation (nearly 150,000).
 - ❖ The contract-program for the period 2017-2021: a roadmap of the Moroccan agribusiness which promotes upstream integration and downstream processing.
- ▶ An industry which has managed to withstand the shock caused by the health crisis :
 - ❖ Export sales, up 7.6% annually over the period 2010-2019 (190), increased by 1.2% between 2019 and 2020 (203).
 - ❖ The share in total exports - nearly 11% over the period 2010-2019 - increased by one percentage point between 2019 and 2020 (190).
 - ❖ The fishing industry – accounting for nearly 50% of agri-food exports (190) – proved to be particularly resilient in terms of work stoppages during the containment (33.8% vs. 83.4% worldwide) and workforce reductions (21% vs. 40% at global level) (204).

Figure 47: Assessment of the first agricultural strategy, the Green Morocco Plan



Source : Presentation by the Minister of Agriculture to His Majesty King Mohammed VI, 13 February 2020. AI OULA channel

Morocco's world crafts : the Agribusiness (2)

Strong potential for growth...

- ▶ Morocco currently ranks second in Africa, after Egypt, in terms of investment attractiveness in the agribusiness sector (205).
- ▶ However, the performance of the agribusiness generally remains below the sector's potential.
 - ❖ The sector suffers from supply issues, under the combined effect of climate change and irrigation, which is still not fully satisfactory despite the significant efforts made in this regard under the Green Morocco Plan.
 - ❖ A large part of exported products undergo only minimal processing.
 - ❖ High value-added deep-sea fishery products still constitute only 6% of fisheries production (206).
- ▶ Aware of the importance of the agri-food sector, the Moroccan authorities have included in the stimulus plan a special "agri-food industry agribusiness" fund to finance the cash flow and investment in the sector, as well as the creation of a Moroccan label for locally produced products (206).

... for the benefit of the life-supporting economy

- ▶ The health crisis is an opportunity for transitioning to a new Moroccan agri-food model, based on two pillars.
 - ❖ On the one hand, enhancing the sector's export vocation. The sustained increase in global consumption of processed agricultural products is offering vast possibilities in this regard.
 - ❖ On the other, ensuring the development of local, more sustainable production that can guarantee the country's food sovereignty. The growing urbanization of the Moroccan population, coupled with changing eating habits, bodes well for the future for the local food industry.
- ▶ To seize these opportunities, efforts should be stepped up to make the most of this development potential: international quality standards, more secure supplies, new agri-food chains, ...
- ▶ Finally, proper knowledge and rational exploitation of the Moroccan plant heritage (industrial transformation of natural resources) would allow significant leapfrogging in terms of "healthy" transformation (see Morocco's world crafts – conclusion).

Morocco's world crafts : Textile and leather industry

An important, hard-hit sector

- ▶ The textile sector holds an important place in the nation's industrial activity, accounting for :
 - ❖ 27% of industrial jobs (208).
 - ❖ 17.7% of industrial companies (208).
 - ❖ 1,100 companies produce 1 billion pieces annually: subcontracting (600 million pieces); co-contracting (300 million pieces); own collections (100 million pieces) (209).
- ▶ A comprehensive vision - encompassing both the export and domestic markets - has been developed for this sector within the framework of the 2014-2020 Industrial Acceleration Plan.
- ▶ The health crisis, which has severely impacted the Kingdom's main partners, notably Spain and France, has caused a 19.2% drop in the value of Morocco's textile exports between 2019 and 2020 (203).
- ▶ In addition to the troublesome evolution of the leather sector - increased competition, rising costs, increased demand for high quality (210) - the global textile market is also undergoing a profound change: growing demand for natural fibers, increased investment by developing countries (211).

An imperative shift

- ▶ With a share of total exports steadily declining for a decade, the model which has existed in Morocco since the 1960s is outdated: labor-intensive, low-technology, obsolete pattern of value sharing between customers and contractors.
- ▶ China's evolution towards a service economy and high labor costs will lead many garment manufacturers to relocate their production to developing countries. This is an opportunity for Morocco to operate a real change in its textile industry.
- ▶ In addition to the necessary restructuring of the sector, the textile industry must move to a higher level of technological integration and diversification (211), for example :
 - ❖ use of natural fiber composites to service the automotive industry and the medical sector,
 - ❖ production of non-woven textiles, in particular for hygienic products and geotextiles (construction, transport, roads),
 - ❖ development of smart textiles, incorporating sensors, batteries, various components (anti-transpiration, biomedical, ...) (212),
 - ❖ integration of robots in production processes.

Morocco's world crafts : Offshoring

Offshoring: a promising sector for the national economy...

- ▶ Offshoring is one of the activities that have developed the most in Morocco in recent years. The Kingdom was elected “the best offshoring destination 2012” by the European Offshoring Association (EOA).
 - ❖ This sector currently has a workforce of more than 78,000 people in Morocco; it has generated MAD 14 billion in export sales in 2019 (213).
 - ❖ Offshoring activities in Morocco mostly cover three main areas: Customer Relationship Management (CRM), Business Process Outsourcing (BPO) and Information Technology Outsourcing (ITO) (213).
- ▶ Morocco has identified offshoring as one of the global businesses that can be a real lever for economic development.
 - ❖ With more than 1,000 actors, it contributes to the development of the Moroccan middle class, thanks to salaries ranging from 2 to 5 times the minimum wage.
 - ❖ It also contributes to promoting female employment: 55% of the sector's employees are women (214).

which future evolution should be prepared

- ▶ The three types of offshoring existing in Morocco are likely to evolve differently.
 - ❖ CRM seems to be doomed in the medium term because of increasing automation.
 - ❖ BPO and ITO, which are less open to automation and have a higher added value, should see increased competition between developed and emerging countries.
- ▶ In this regard, three levers will be key to the growth of offshoring in Morocco (214) :
 - ❖ The expertise and level of competence imposed by the requirements of productivity and international competitiveness.
 - ❖ Flexible, adjusted tax incentives that are likely to attract foreign customers.
 - ❖ The quality and speed of Internet connections, the security of intangible infrastructure and the availability of local backup structures (cloud servers) (214).
- ▶ These levers require significant investments not only in human resource training and remuneration, but also in the upgrading of information systems and equipment (215).
- ▶ Finally, new professions will soon be emerging in this sector, for which Morocco should get ready :
 - ❖ Engineering Service Outsourcing (ESO), which also includes R&D,
 - ❖ Knowledge Process Outsourcing (KPO), which involves content requiring expertise.

What future for Morocco's world crafts (2)

Conclusion

- ▶ The potential for Morocco both to rise in the ranks of the global trades in which it is already involved and to access new global value chains is not far-fetched.
- ▶ However, this requires adequate training of human capital, the adoption of world-class organizational standards, and the promotion of technological innovation. New industrial sectors could thus be leveraged.
- ▶ By participating fully in connecting regions and enabling them to gain in attractiveness, the development of **rail transport**, which promotes sustainable mobility, has opened vast prospects for the establishment of a real mechanical railway industry in Morocco. The commissioning in Morocco, at the end of 2018, of the first high-speed train in Africa has contributed to this vision.
- ▶ The containment period has spurred Moroccan ingenuity (production of masks, hospital beds, respirators, etc.) which should not only continue but also be transformed into a real **healthcare industry** (pharmaceutical products, medical equipment).
 - ❖ Morocco has a plant stock of about 4,200 species, including 600 medicinal and aromatic plants, thanks to which it ranks 2nd in the world, just behind Turkey (A). By developing its plant resources, the Kingdom could turn this industry into a new global trade.
 - ❖ The industrial production of vaccines is also a sector for the future given the growing gap between supply and demand. Morocco's attractiveness as far as foreign investment is concerned and its position as a gateway to Africa and Europe could help create a pharmaceutical industry with high added value, especially in virology.

A ACCELERATING A STILL LIMITED DIGITALIZATION

The future of globalization, whatever its shape, will likely be strongly influenced by the development of digitalization.

In 2020, there was a significant acceleration of digitalization as a result of the automation and dematerialization of various human activities.

The first reason for this is that the pandemic has shone a spotlight on the inefficiencies of archaic systems and processes in all sectors of activity, which justifies the use of digital technology to overcome those inefficiencies.

The second reason has to do with the very nature of the health crisis itself, which requires containment and social distancing. This explains why there has been extensive and spontaneous use of information and communication technology to compensate for people's absence or for distancing, as various segments of the population, that had not used it until now, started resorting to it (the elderly, children, people residing in non-urbanized areas, etc.).

This acceleration has probably changed a number of practices and brought to the forefront next-generation technology, which is set to become inevitable. However, the lack of maturity* of this technology or of new practices could slow down their development.

Accelerated digitalization

Today, automation, artificial intelligence and a global network of digital communications are a driving unprecedented innovation.

Nevertheless, the transition from experimentation to generalization in a corporate environment is much more difficult than innovation itself since digitalization requires a change in the business model, even in the core business. In addition to that, there is the rapid evolution of trends and technologies which drive the market. This is why business leaders are often reluctant to introduce radical changes into their business model.

With that in mind, the pandemic offers an exceptional opportunity to make that leap forward. The scale of investment required for digitalization in the current global situation only makes sense if the future of the affected companies is secured.

In fact, digitalization, which involves both automation* and dematerialization*, makes it possible to relocate certain production processes, rationalize value chains or find new markets. It also offers a viable alternative to a remote workforce (outsourced call centers, for instance) or one under lockdown (customer support). Finally, it is gaining fresh support from the general public.

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ACCELERATING A STILL LIMITED DIGITALIZATION (2)

- ▶ This is why, in early 2020, among the major strategic technologies - called next-generation technology in digitalization, we could still find (217) :
 - ❖ **hyper-automation**, which involved an integrated combination of multiple machine learning algorithms and artificial intelligence software to “intelligently” automate increasingly complex tasks (without human intervention), like dispatching deliveries using weather and traffic forecast data to automatically deliver goods.
 - ❖ **artificial intelligence** (including Machine Learning*, Deep Learning* and predictive analytics*), which makes it possible to obtain ground-breaking results in a wide range of activities, from medical discoveries to the piloting of self-driving vehicles and the accurate forecasting of hurricane paths. This explains the exponential development of artificial intelligence, which is fueled by a worldwide hunt for talent in programming, data processing, mathematical and computer modeling...
 - ❖ **natural language processing** (NLP*): because it enables voice recognition, device visualization and object identification, it is used for text and voice processing through artificial intelligence, from chatbots and virtual assistants to machine translation
- ❖ **cybersecurity tools**, such as crypto-algorithms, which are constantly evolving in order to address growing threats, such as hacking machine learning schemes. They now also include blockchain* which, by verifying the authenticity of videos for example, can fight deepfakes* (218).
- ❖ **augmented reality**, mainly for user experience (UX), but also for assistance and medicine, which covers a vast field of ongoing developments, from head-up displays (HUDs) to smart TV, including assistance for people with disabilities.
- ▶ The chaos caused by the pandemic has led several sectors of activity to adopt - even accelerate - their digitalization, regardless of technological evolution. Four examples are of significance (219) :
 - ❖ **digichain*** : as product testing is still carried out using physical samples sent by manufacturers, often over long distances, lockdowns and ecological pressure have led many retailers and brands to switch to 3D printing. From digital product testing to the digitalization of the supply chain, it is but a short step - one that has been quickly taken by some multinationals (Adidas, etc.), which have thus reduced their lead times and energy costs while increasing their quality control and time-to-market (220).

A ACCELERATING A STILL LIMITED DIGITALIZATION (3)

- ▶ **hospital robots:** until now, they have been restricted to robotic arms in surgery; with the outbreak of the COVID-19 pandemic, mobile robotics has accessed the hospital environment to make up for the lack of hospital staff, protect personnel from contamination or disinfect the premises.
- ▶ **telework:** working from home -like teleconferencing, webinars and other forms of real-time connection - is likely to outlive the pandemic, under adapted arrangements (part-time, co-working spaces): many businesses have already changed work contracts accordingly, thus optimizing their organization, real estate and technical systems (221).
- ▶ **distance learning** (e-learning): because of growing meteorological, political and health risks, the use and production of distance learning, both at school and university level, should continue to grow after the pandemic. In this new digital market, it is likely that there will be a significant development of Ed-Tech (e-learning technology) given that it is currently lagging behind.

Robotic hospital staff at the Circolo Hospital in Varese (Italy)



Source : <https://www.fudzilla.com/news/ai/50583-robots-go-to-work-in-italian-hospitals>

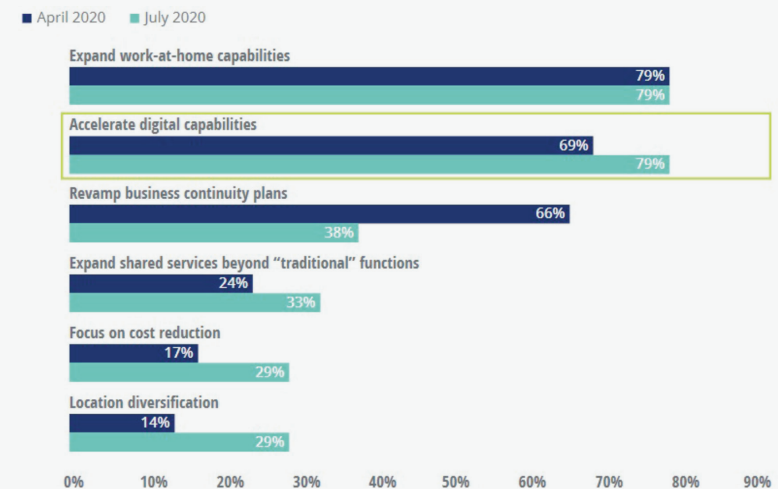
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ACCELERATING A STILL LIMITED DIGITALIZATION (4)

► Depending on the country, many other activities have been impacted by digitalization, maybe in a less spectacular way but nonetheless lasting manner, due to the acceleration of two main trends :

- ❖ The development of “**touchless**” technology, which is designed to avoid direct contamination; this has accelerated (222):
 - The **reduced use of cash** (cashless economy) in favor of contactless payment (by bank card or via the telephone); the shift is already particularly high in Sweden, South Korea and Kenya (223).
 - The **dematerialization** of procedures, for example in terms of mobility, with contactless boarding, contactless identity and temperature control...
 - The delivery of consumer goods or emergency items without human intervention, thanks to **drones** (224).
 - The development of telemedicine, thanks in particular to **sensors** of all kinds and **videoconferencing**.

Figure 48 : Findings of Deloitte’s survey concerning the impact of COVID-19 on businesses around the world: expected changes in the future due to the COVID-19 pandemic



Source : IRES-processed, Deloitte Webcast Survey, “ Adapting to new realities resulting from COVID-19, April 8/9, 2020 ; Deloitte Webcast Survey “ Shared services and outsourcing executive roundtable ”, July 23, 2020

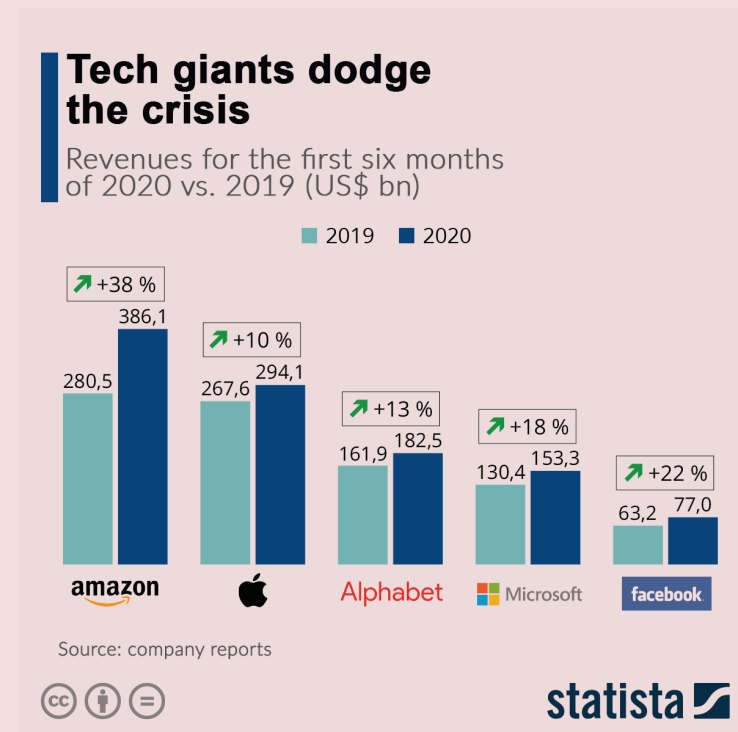
- ❖ “**Virtualization**”, i.e. the transformation of a physical object or service that is usually carried out face-to-face into a virtual object or service, for example :
 - **sports coaching**, which is performed remotely, either live or through videos; immersive sports training, a combination of physical practice in a virtual environment (VR headsets).
 - **digital tourism** (e-tourism, online tourism, cyber tourism) which highlights the historical (monuments, museum collections) and natural heritage. Its explosion in 2020 is leading to its professionalization which relies on smartphones, augmented reality, predictive analysis and artificial intelligence applied to voice search (225).
 - **professional presentations** (speakers, hosts), which could accelerate the use of holographic technologies (226).
 - the **event industry in general**: the proliferation of virtual events (conferences) and the impromptu virtualization of traditional face-to-face events (congresses, workshops, exhibitions, shows) have underscored the need to thoroughly rethink virtual communication.
- ▶ Finally, the second wave of the pandemic has triggered the accelerated deployment of new, mainly **hybrid** forms of e-commerce:
 - ❖ International manufacturers, such as Nike, sell their products online while continuing to deliver to their retail partners.
 - ❖ Small retail businesses (following the click and mortar* model) have quickly set up low-cost websites, combining online orders, physical-store business and home delivery.
- ▶ This acceleration of digitalization has been a tremendous asset during the containment measures to maintain human, family and social cohesion, allow education systems to continue providing education and ensure a minimal level of certain professional activities. This trend has been characterized by a marked hybrid system, involving the physical and the virtual (227).
- ▶ It will also determine the contours of the post-COVID world thanks to the new possibilities for development, job creation, growth and innovation it brings. However, this transformation is not without consequences, given the growing digital divide, a possible imbalance between job losses and job creation, and vulnerability to breakdowns, piracy, ...etc.

Plural digitalization

- ▶ During the first half of 2020, the GAFAM “tech giants” (Google/Alphabet, Apple, Facebook, Amazon and Microsoft), with the largest market share in their respective fields, have seen a significant increase in their revenues in a context marked by a global economic recession.
- ▶ Is this enough to predict a massive digitalization of human activities ?
 - ❖ On closer examination, Amazon’s growth can be explained by the online purchases made during the lockdown. Are these new consumer habits which are going to become permanent, or will there be a return to traditional shopping once the fear of contamination is over ? (228)
 - ❖ As regards work from home, high-skilled jobs or jobs involving intangible content can be carried out from home. However, this is not the case for jobs in agriculture, the hotel industry, catering and maintenance for example; nor in personal services in general, especially hospital services.

Moreover, technical constraints remain an issue - overloading of data networks which slows down data flow, difficulties in transposing certain activities, such as learning and collaborative work - just like human constraints, such as human digital saturation as a result of a relentless flood of information and virtual events...

Nevertheless, this crisis has provided an opportunity to accelerate the digitalization of activities all over the world (telework, e-learning and online buying), including in emerging countries.



source : <https://fr.statista.com/infographie/21595/croissance-chiffre-affaires-gafam/>

A ACCELERATING A STILL LIMITED DIGITALIZATION (6)

Four major consequences

Among the many consequences of this accelerated digitalization, four of them deserve particular attention because of their structuring effect on the medium and long term.

- ▶ The **technological limitation** (data storage capacity in the cloud, internet speed, PC technology, etc.): new IT paradigms will be needed to overcome this digital wall. Indeed, continuous growth in digital environments is now following an exponential pattern.
 - ❖ While the uses of information and communication technology are expanding, the volume of digital data continues to grow, amplified by connected objects (IoT) and the impact of artificial intelligence. New tools are needed to manage this, such as hybrid digital infrastructure management (HDIM) and information technology service management (ITSM).
 - ❖ While better organization is necessary, it is not sufficient to make sure such flows are controlled. The digitalization of the planet requires first and foremost an overhaul of traditional IT. This is because its core element, the silicon processor, has reached a triple limitation: economic, ecological and performance-wise. That is why new, considerably disruptive alternative technologies will quickly be put in place.

- ▶ **Two new digital gaps** have emerged, in addition to the traditional digital gap that divides populations with and without access to information and communication technology (229) :

- ❖ The first is based on the **capacity to invest massively** or not in this digitalization. Thus, digital companies (GAFAM*) - which have seen a sharp increase in their turnover in 2020 - now have the means to invest in the most promising disruptive technologies such as neuromorphic computing*, synthetic DNA data storage, the distributed cloud computing, the Digital Twin... This will create an unprecedented gap with companies that did not have the necessary resources at their disposal at the end of the pandemic, and that will see their development hampered by the increasing cost of their obsolete technology or a digital transformation that is too slow compared to their competitors.
- ❖ The second gap concerns the difference between Western and Asian digital companies, which are institutionalized actors in the world of **ultra high-tech**, which is heavy and expensive, and quasi-individual actors of the **digital "low-tech"**, such as African coders, who are fast, pragmatic and require less financial and energy resources.

What acceleration of digitalization in Morocco ?

A mixed digital transformation

- ▶ Morocco has implemented a series of strategies and programs for the development of this sector, especially “e-Morocco 2010”, “Maroc Numérique 2013” and “Maroc Digital 2020”. This has made it one of the leading players in Africa in terms of connectivity and digital use (230).
- ▶ The telecommunications sector has seen sustained development: mobile and internet penetration rates stand at 137.5% and 83% respectively (231).
- ▶ Notwithstanding these accomplishments, the digital transformation has faced a series of hurdles relating to the lack of human capital and the relative weakness of the digital infrastructure. In 2017, the situation was as follows :
 - ❖ Greater digital maturity of companies, especially those integrated into large international groups.
 - ❖ Innovative actors, both in the public and private sectors, which would benefit from greater notoriety and from being integrated into an ambitious national digital strategy.
 - ❖ The Kingdom’s position as an “intermediate country”, with no real clear-cut choices in the digital sector.

Will the health crisis accelerate digital transformation in Morocco ?

The COVID-19 pandemic has highlighted the crucial role of digital technology in both social and economic development. Morocco was no exception :

- ▶ **Acceleration of the e-Gov project:** development of applications for the digital management of correspondence and for the digitization of administrative paperwork, which facilitate electronic signature. In December 2020, the Parliament adopted Law 43.20 on trust services for electronic transactions to boost digital transformation and promote cybersecurity (232).
- ▶ Development of **distance learning** :
 - ❖ 95% of the academic path has been digitized (233) thanks to the implementation of the “TelmidTICE” platform (600,000 distance learning operations per day during the lockdown (234)) and the launch of ‘Teams’ participatory service, which has been integrated into the Massar system. This made it possible to provide more than 725,000 virtual classes (233).
 - ❖ In higher education, each Moroccan university now has an interactive digital platform which makes distance learning possible. The coverage rate is between 80% and 100%..

What acceleration of digitalization in Morocco ? (2)

- ▶ **Resorting to remote work:** the Department of Administrative Reform has developed a methodological guide to remote work for public administrations and for accelerating the deployment of digital platforms that allow the organization of virtual meetings.
- ▶ **Launching the project on the digitalization of the judicial system:** designing a master plan for the digital transformation of the judicial system and signature, as part of the “Data-Tika” program, a cooperation agreement between the Ministry of Justice and the National Commission for the Supervision of Personal Data Protection (235).
- ▶ **Development of the Moroccan application on notification of exposure to COVID-19, called “Wiqaytna”.**
- ▶ **Creation of the first tele-medical advice site “tbib 24”.**

Figure 49 : Relationship between ICT investment and value creation

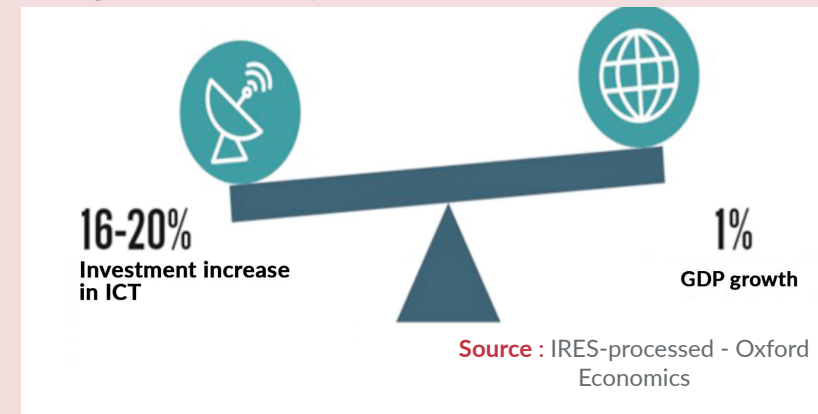
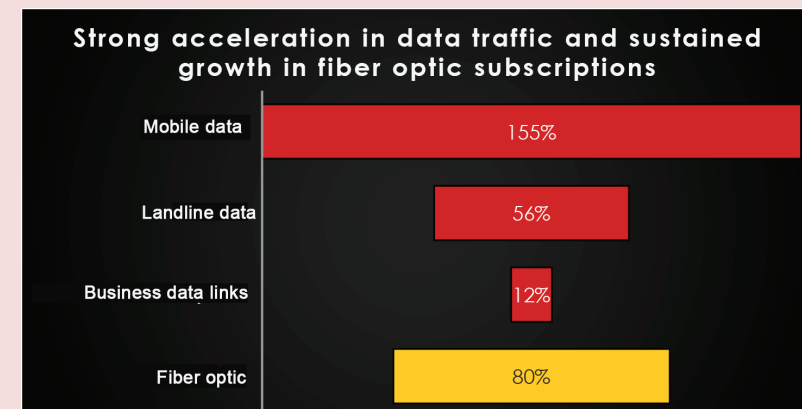


Figure 50 : Evolution of data traffic and fiber optic subscriptions in Morocco between 2019 and 2020 optique au Maroc



Source : IRES-processed - National Telecommunications Regulatory Agency

What acceleration of digitalization in Morocco ? (3)

Awareness of public authorities

It has now become clear that “being a player in the digital revolution rather than being subjected to it” is a priority objective. Hence the importance of achieving the digital transformation :

- ▶ In addition to efforts to strengthen the soft dimension of the digital transformation, it will also be necessary to invest massively in :
 - ❖ digital infrastructure (big data, cloud, broadband), to align it with international standards and make sure it is closely correlated with the imperatives of digital sovereignty,
 - ❖ building digital skills.
- ▶ The Digital Development Agency created in 2017 will also need to be consolidated and digital development objectives should be met by 2025 (236) :
 - ❖ Ensure the digital transformation of the Moroccan administration in order to make public services more efficient, transparent and timely (objective: a citizen satisfaction rate exceeding 85%).
 - ❖ Accelerate the development of the digital economy, with the ambition of establishing Morocco as a reference digital and technological hub in Africa.

- ❖ Ensure social inclusion and improve the quality of life of citizens thanks to digital technology: reduce the digital divide, groom a new generation of young people and talents, promote specific digital initiatives in the fields of education, health, agriculture, crafts...



A ACCELERATING A STILL LIMITED DIGITALIZATION (7)

- ▶ **The issue of privacy and security** is becoming increasingly serious. Indeed, the purpose of all actors involved in digitalization is to produce and use increasingly intelligent and autonomous systems (artificial general intelligence, autonomous business processes, cognitive automation) in order to relieve people of part of their workload.
 - ❖ To that end, more and more data is being compiled to develop and improve the artificial intelligence that will drive these autonomous processes (machine learning), making them capable of analyzing text and speech, but also decrypting human emotions (237).
 - ❖ At the same time, more and more data is collected every day by information and communication systems to better know momentary customers, regular ones or co-workers. From browser history files to physical biometric tracking, this data is already feeding predictive analysis, personalized marketing, public remote monitoring and even the identification of personal mood (238).
 - ❖ From the collection of private data to the permanent surveillance exercised by digital agents and connected objects, the exposure of users to cybercrime - from manipulation (deepfake) to misuse (identity theft, fraud, ...) - risks are becoming increasingly significant (239).
- ▶ A last consequence mentioned here is the impact of digitalization on an essential human activity: **international mobility**.
 - ❖ The decline in the number of business trips could continue after the pandemic, given both the savings made in a context marked by an economic slowdown and the effectiveness of alternative virtual solutions: e-meetings, e-conventions, e-exhibitions...
 - ❖ The interruption of international tourism because of the pandemic has led to environmental and ethical awareness (see below), which could hinder its full recovery, or at least its continued growth. Nevertheless, the main obstacle to this growth may well be the implementation of immersive technologies that can make virtual visits replace queues, promiscuity and the health hazards associated with a standard visit, particularly in the case of museums and historic buildings.
 - ❖ Finally, another form of mobility is made possible thanks, in particular, to the deployment of 5G, then 6G: that of digital nomads. A consequence of the development of the gig economy, this trend towards long-distance work is significant enough that the Balearic Islands and the Maldives, for example, have already positioned themselves in this niche (240).

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CCELERATING A STILL LIMITED DIGITALIZATION (8)

Nobody can see the future exactly as it will happen, so we have to be prepared.

We have to proof against what might happen.

We're in for a decade of radical technology disruption.

Now's the time to get started.

Daryl PLUMMER, traduit de Gartner IT Symposium/Xpo™ 2020 (241)

Structural change factors

Thus, the general trend of continuous growth in digital environments has become paradoxical. A paradox for companies: while current technologies are being stretched to their limits, the use of automated systems and massive production of data are constantly accelerating (242). but also a paradox for the individual: while he or she is the main voluntary supplier of data, they are also the ones who generate the most “false information”, either through sheer ignorance or pure malice.

Moreover, the breaks caused by COVID-19 have compelled many organizations to reconsider their future and their modus operandi, not just because economic activity needs a reset, but also because this is required by technological progress (243).

In this regard, the way certain factors of change develop - or fail to develop - in the coming years will shape the general environment of the next decade.

A ACCELERATING A STILL LIMITED DIGITALIZATION (9)

- ▶ **The duration and extent of the economic recession:** the difficulties faced by companies in 2020 and beyond are likely to slow down investments in the IT sector, making planned digital transformations take more time. This is especially true since the cost of these transformations is expected to increase due to the sudden spike in the volume of dematerialized data that now transits through digital infrastructures (networks, clouds) which are not tailored for that and which will therefore have to be replaced (242).
- ▶ **The capacity to rapidly improve current applications:** the speed with which the massive digitalization of certain businesses has occurred (e-learning, retail e-commerce) is due to the pandemic. However, in order for these uses to continue in the post-COVID world, a significant effort will have to be made by developers to respond to user requirements and better adapt to user-friendly patterns.
- ▶ **Non-traditional approaches will enable the next rebound of innovation and efficiency:** data centers, workstations and connected devices (smartphones, tablets, robots, ...) will only be able to meet new requirements based on new technological foundations, such as DNA storage to replace existing storage technology, which is about to be swamped, or neuromorphic computing, which is faster and needs less energy. Both the hardware and the software will therefore need to be revisited to ensure the next technological leap. The countries that are already investing in these fields - China for example (state capitalism dedicated to promoting high-tech), but also the United States - will be the next digital masters.
- ▶ **Access by the countries of the South to the new digital Eldorado:** data economics operates just like physical economics: it is not those who produce raw materials that benefit from their exploitation, but rather those who can transform them. This requires technological infrastructure, human resources (data scientists, artificial intelligence specialists, platform entrepreneurs, etc.), but also adequate legislation (intellectual property, patents, etc.) (244)

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ACCELERATING A STILL LIMITED DIGITALIZATION (10)

▶ **Accompanying the next generations:** learning about cyberspace has become as necessary as a driver's license to move around. Making young people digitally literate will increase both their employability prospects and their digital fluency. Social networks are just technical tools: it is the user who needs to be groomed if we want to make the most out of these networks. Whether digital literacy is ensured or not could quickly divide nations, even cultural groups within a country, opening the way to :

- ❖ an increase in digital "petty crime",
- ❖ a misrepresentation of the "voice of society*", as measured by media metrics,
- ❖ a shortage of digital talent,
- ❖ a glass ceiling for emerging countries.

Digitalization, a vehicle for progress much broader than mere technology





Current technological progress is likely to shape the landscape of the next decade with artificial intelligence, blockchain, quantum computing and the massive influx of machine customers (245).

- ▶ To get out of the recession faster, companies and countries alike could promote telework and e-commerce in order to speed up entry into the digital economy; this will require better digital infrastructure.
- ▶ The key to the various possible futures therefore hinges on three phenomena :
 - ❖ Rapid improvement of technology and its uses.
 - ❖ The closing of current and future digital gaps.
 - ❖ Digital literacy, not just for talents, but for the entire population. This requires the following :
 - urgently train all teachers in digital literacy and make the latter a condition for the recruitment of new teachers,
 - develop digital literacy from primary school onwards to familiarize children with technology, but above all to instill in them the critical thinking skills needed to navigate cyberspace,
 - rethink the content of education and of teaching methods, in particular the use of educational video games and online educational platforms,
 - convince communities (parents, seniors, social economy, etc.) of the need to be quickly introduced to information technology, e-administration, teleshopping and dematerialized payment (virtual currency).

Social networks in Morocco: multiple challenges to be addressed

- ▶ The use of virtual social networks space has brought about far-reaching societal change in relations between citizens and political and economic spheres. It also shattered intergenerational divide and led to disruptions in international relations .
- ▶ In Morocco, there is a massification in the use of social networks, especially among young people and children under 15, as shown by the clear appeal of the WhatsApp application, which has become the leading social network in Morocco, and the platforms developed by the GAFAMs (Google, Apple, Facebook, Amazon and Microsoft) have become the principal means of communication for Moroccan Internet users (126).
- ▶ The growing power of social networks in Morocco raises multiple interdependent issues (126):
 - ❖ The first issue concerns the creation and expansion of a digital space that is used to express various forms of citizen demands, but which also involves risks of political activism and of a crisis of institutional confidence
 - ❖ The second issue is related to the protection of personal data, domestically and at international level, in order to safeguard Morocco's digital sovereignty
 - ❖ The third issue - of a societal nature - concerns the protection of children against the risk of screen addiction on the one hand, and of a widening digital divide, on the other
 - ❖ The fourth issue is related to the fight against hate speech, the dissemination of fake news and disinformation campaigns
 - The COVID-19 pandemic has illustrated the fact that social networks are fertile ground for the dissemination of fake news. During the global health crisis, Morocco, like several other countries, was subject to an 'infodemia'
 - ❖ The fifth issue - an economic one - is related to productive, job-creating sectors that deserve to be protected against pressure from social networks, including boycott campaigns.
 - ❖ The sixth issue is related to the growing weight of social networks, facilitated by the meteoric development of the GAFAM, which contribute to sidelining traditional media and which are monopolizing a substantial part of the domestic online advertising market.
 - ❖ The seventh issue concerns the implementation of a digital diplomacy that would make it possible, among other things, to address Morocco's strong dependence on the GAFAM, which have access to and exploit the personal data of Moroccans.

The Four Levels of Cognitive Automation

Level 0	Level 1	Level 2	Level 3
Unintelligent Automation	Language & Context Aware	Intelligent Process Awareness	Autonomous Process Optimization
 <ul style="list-style-type: none"> • Screen recorder or visual flow designer • Complex rule sets • Focused on replicating user interaction capabilities with keyboard, mouse, swipe, and behavior modeling <p>Source: Cognilytica</p>	 <ul style="list-style-type: none"> • Use of natural language processing tools for text (OCR), speech, and other interaction • Virtual assistants to help with process development • Fix and validate data as necessary for context • Can deal with unstructured data and inputs 	 <ul style="list-style-type: none"> • Automatically identify process flows in new systems (“process discovery”) • Anticipate and mitigate process flow exceptions • Understand UI changes & make dynamic process changes • Find and fix missing or incorrect data • Automatic process documentation 	 <ul style="list-style-type: none"> • Suggest and make modifications to processes to improve overall flow • Learn from itself to figure out better ways to handle process flow • Automatic orchestration of multiple bots to optimize processes

Source : <https://www.forbes.com/sites/cognitiveworld/2020/02/14/from-process-automation-to-autonomous-process/?sh=903f39163b68>

TOWARDS A MORE SYSTEMIC ECOLOGICAL TRANSITION

Almost everywhere in the world, the pandemic has given rise to **greater awareness** of the importance of the environment, particularly through the notion of global health and a broader conception of ecology (see Part I, Chapter Two).

This resulted from a **combination of three factors** following the containment measures imposed: a removal from the natural environment, the emotion felt by seeing wildlife prevail again, particularly in cities, and the quantitative data about the effect of the cessation of most human activities on the quality of the environment (a healthier air, a clearer sky...). In Europe, for example, containment measures are believed to have contributed to a 57% drop in daily carbon emissions (246).

At the same time, COVID-19 has exposed the **fragility of humanity** in the face of global natural phenomena, more than various natural disasters have done so far.

This broad awareness - given its depth, multiples purposes and the number of people affected - has led to four distinct phenomena that could generate profound, lasting changes of course.

A new relationship with the living world

Two specific changes affecting the way we perceive the world are taking place today.

- ▶ The last few years have seen a growing number of **climate change** movements, not only among young people, but also among scientists. Tens of millions of people are already affected by an increase in the number of wildfires, sea level's rise, heat waves, droughts and floods. Over and beyond such natural disasters, the general rise in temperatures alone is an obvious development: according to the World Meteorological Organization, the year 2020 was the hottest year ever recorded on the surface of the globe, with a global average temperature of about 14.9°C, or 1.2°C higher than pre-industrial levels (1850-1900 period) (247). These widely shared observations have significantly contributed to awareness-raising (248).
- ▶ At the same time, over the last half-century, an idea has gradually developed that if all human beings are equal (principle of the unicity of the human species), then all **living beings** are also equal. Speciesism therefore seems like a variant of the slavery principle - even of the colonial one (249). COVID-19 was therefore felt as a brutal wake-up call*.

T

OWARDS A MORE SYSTEMIC ECOLOGICAL TRANSITION (2)

- ▶ We can thus note a real **paradigm shift**: shift from a minority, demand-driven ideology to a natural ethical component of the worldview of new generations (Alien Gen*). Hence, the living world is no longer limited to the animal kingdom; it also includes the flora, thus reflecting better awareness of the ecosystem services provided by biomes as well as the interdependence between living specie.
- ▶ Still, the **sixth mass extinction** is underway. While rapid action can mitigate it, prevention is no longer sufficient. In some regions, public policies will have to take that into account in order to anticipate the migration movements that will result from the disappearance of entire ecosystems (desertification, marine anoxia) or from massive imbalances (infestations). After adapting to climate change, we will have to adapt to ecosystem change.
- ▶ Since land transformation, agricultural expansion and urbanization are at the origin of more than 30% of emerging diseases, partly because of the impact of these phenomena on biodiversity (250), la Covid-19 a donc été vécue comme un violent coup de semonce (*wake up call*).

Box 7 : Vertebrates on the brink

The ongoing sixth mass extinction may be the most serious environmental threat to the persistence of civilization, because it is irreversible. Thousands of populations of critically endangered vertebrate animal species have been lost in a century, indicating that the sixth mass extinction is human caused and accelerating. The acceleration of the extinction crisis is certain because of the still fast growth in human numbers and consumption rates. In addition, species are links in ecosystems, and, as they fall out, the species they interact with are likely to go also. In the regions where disappearing species are concentrated, regional biodiversity collapses are likely occurring. Our results reemphasize the extreme urgency of taking massive global actions to save humanity's crucial life-support systems (251).



Toward a post-coronavirus city ?

- ▶ The two main trends of the 2010 decade regarding cities and sustainability were, on the one hand, the acceleration of **urban concentration** despite its negative consequences (congestion, promiscuity, pollution) and, on the other hand, action to protect a growing number of **cities threatened** by rising sea levels, such as Jakarta, Bangkok, Mumbai, Miami and Cotonou (252). (see Data n°4)
 - ▶ In the post-COVID world, concerns about the **marine submersion** of megacities persist, the more so as the historic decline of the Arctic ice pack in September 2020 makes us fear the worst for the coming decade. In addition to that, there is the concern regarding the increase in extreme weather events (253).
 - ▶ However, a new dynamic has emerged during the pandemic which could prove to be long-lasting: people are **leaving large cities** because they are suddenly very concerned about their well-being and the sustainability of the planet (254).
- ▶ This dynamic can be explained by a combination of several factors.
 - ❖ During the first wave of the pandemic, the **fear** of contamination, on the one hand, and of being cut off from one's family members, on the other, led many families to get together in second homes or stay with relatives in the countryside (255).
 - ❖ During the second wave, the cramped housing conditions in large urban centers, coupled with difficulties in moving around and increased risk of controls and the poor quality of the urban landscape led those who could **work from home** and those who were **unemployed** to join the first group.
 - ❖ As pointed out in Part I, the introspection caused by the lockdown led to radical life changes. Many families left large urban centers to relocate in smaller cities or town centers, opting for a new, less expensive **way of life**, with less excess and stress .
 - ❖ The new **environmental awareness** has something to do with this quest for a healthier quality of life, a better living environment and a smaller ecological footprint.

Sustainable urbanization in figures

The urban situation by 2050

- ▶ Around the world, the urban population has been growing steadily, with people living in dense cities, looking for jobs and urban services.
 - ❖ By 2050, the world's population is expected to stand at approximately 10 billion people (256). According to the United Nations, 6.7 billion people, or 70% of the world's population, will live in cities (257).
 - ❖ The number of cities with more than 10 million inhabitants is expected to go up from 10 in 1990 to 41 in 2030. Of these 41 global megacities, 6 are expected to be in Africa (258).
 - ❖ According to the United Nations, the population living in slums will increase from one billion people today, to three billion in 2050. By that time, it would account for nearly 31% of the world's population (259).

Cities and sustainability

- ❖ A 1-meter of sea-level rise would threaten several megacities, including Rio de Janeiro, New York, Mumbai, Dhaka, Tokyo, Lagos and Cairo (260).
- ❖ "Today cities occupy only 2% of the world's surface, but they host up to 50% of the world's population, are responsible for 75% of global energy consumption and 80% of CO2 emissions. Hence, if we made our cities just a little more efficient, we could have a major global impact - Carlo Ratti, MIT Founder, Senseable City Lab" (261).

Toward a post-COVID city ?

- ▶ Following the health crisis, some cities have launched sustainable urban projects, including the following :
 - ❖ **The city of Barcelona**, a pioneering "smart city", which has announced the implementation of new development plans allowing for the expansion of green spaces in some neighborhoods such as the central Eixample district (262) in which priority will be given to pedestrian and cycling lanes to reduce air pollution.
 - ❖ The first **connected forest city** "Liuzhou Forest City", which is being built in southern China, in the mountainous region of Guangxi. The city, whose construction started in 2020, could accommodate 40,000 inhabitants. With more than 40,000 trees and a million plants of a hundred different species, the future forest city could absorb approximately 10,000 tons of CO2 and 57 tons of micro-particles every year while producing nearly 900 tons of oxygen (263).

The forest city of Liuzhou



Source : <https://www.stefano-boeriarchitetti.net/en/project/liuzhou-forest-city/>

- ▶ The quest for a post-coronavirus city began in places where an awareness of the need for sustainable development was already there. Some mayors have built on that to promote this trend, in particular by encouraging soft mobility* which is conducive to social distancing. The question is: What will be left of these attempts (264)
 - ❖ **A city with or without cars** ? Despite the positive environmental considerations relating to car-free cities (reduced noise, air quality) and the efforts made to promote bicycle use (Bogota, Milan, Mexico City, New York) and “slow streets” (Oakland, San Francisco), the lifting of lockdown measures has led to a return to the usual urban congestion in almost all countries.
 - ❖ **A global or a neighborhood city** ? Containment has brought back “village life” in many neighborhoods (short distances, local commerce): will cities, which used to be divided into functional areas in the 20th century, reorganize themselves into ‘15-minute’ cities that would be slower, more efficient and more sustainable, as proposed by the urban planner Carlos MORENO?
 - ❖ **A dense or spread out city** ? A city on a human scale, which is not very dense, provides better guarantees for the health and physical and mental well-being of its inhabitants (less stress, larger habitat, etc.). Dense cities, however, where promiscuity is conducive to contamination, are also much more efficient in terms of energy use and offer better protection against climatic risks than an isolated habitat (265).
 - ❖ **A more healthful city** ? The COVID-19 could lead to a new urban and interior design that would be more attentive to the conditions of transmission of an epidemic, as was the case with the plague. In Australia, they are considering touchless doors (buildings, public transport), as well as touchless taps and dryers for public toilets (businesses, public spaces) thanks to sensor-based technology. In Poland, street furniture businesses also sell masks and hydroalcoholic gel. In Hong Kong, tests are being run on decontamination booths (266). The role of nature in cities (food gardens, green spaces) is exiting the realm of landscape and moving to that of public health (see illustrations opposite).
 - ❖ **A smarter, more monitored city** ? The smart city*, in which sensors make it possible to better regulate traffic, guide the visually impaired, clean the air, etc., can also become a place of increased surveillance (tracking) of people thanks to cameras and connected personal gadgets (telephones, bracelets, etc.), for better (as with the exemplary management of the pandemic in Singapore (267), or for worse.
 - ❖ **A less festive city** ? Sporting events, carnivals, large fairs, religious or political gatherings: all of these can be conducive to spreading an infectious virus. In the future, will these potential breeding grounds be scrapped in favor of virtual gatherings ?
- ▶ It is likely that none of these solutions will ultimately prevail. All of the above-mentioned possibilities will probably coexist.

SOCIAL DISTANCING, A NEW NORM OR A NEW NORMAL ?



New social distancing circles in American parks (here in San Francisco, 20 May 2020).

Courtesy of Justin Sullivan Getty Images

Source : <https://www.scientificamerican.com/article/overcoming-psychological-biases-is-the-best-treatment-against-Covid-19-yet/>



Spot is a four-legged robotic “dog” that is on patrol in Singapore to ensure proper social distancing measures during COVID-19. (Courtesy: Singapore Government)

Source : <https://www.smithsonianmag.com/smart-news/singapore-using-robotic-dog-enforce-proper-social-distancing-during-Covid-19-180974912/>

- ▶ The various reflections on the future of post-COVID cities highlight a common observation: the search for an increasingly functional and optimal city - whereas current cities are compact and densely populated - has made urban engineers forget its most fragile variable: the **human element**. The city is therefore at the heart of the debate not just because it is one of the main sources of contamination, but also because it is there that a drastic change of dramatic proportions could take place in the post-COVID world (1). Either the city model remains unchanged, possibly leading to an unexpected and lasting increase in rules, constraints and controls, generating even closer surveillance, turning cities into slums; or a rethinking of the concept of the city around the human component takes place for the benefit of the the citizens and the quality of life. Should that happen, we could observe the following phenomena :
 - ❖ A “**slorbanization**” (slow-urbanization) reflecting slowbalization (see above): global cities* and megacities stop growing. Urban command functions* get decentralized thanks to increased digitalization and the growing autonomy of local governments (decentralization, regionalization).
 - ❖ **Megacities**, which are no longer overwhelmed by their exponential growth, would finally tackle their most severe problems, which have worsened due to the systemic crisis: increased poverty and inequality, unaffordable housing, etc
 - ❖ Becoming more attractive, **medium-sized cities** would invest in more advanced and inclusive urban planning. Their mayors would develop policies that are more sustainable - because of the need to do more with less - and more anticipatory, integrating risk management and emergency preparedness. A rethinking of shared spaces and urban transport takes place (269).
 - ❖ There would be a resurgence of **urban real estate**. In offices, more open, dynamic workplaces would be sought to encourage both remote and face-to-face interaction. In homes, a sound-proof “office” room connected to broadband becomes a must. In urban planning itself, we would have eco-friendly neighborhoods, buildings with two different facades: an “office” entrance and a “home” entrance for the same apartment, constructions based on bio mimicry (such as termite mounds for natural air conditioning), waste recycling, positive energy...
 - ❖ Finally, a **drop in regional economic disparities** could take place as skilled workers who left highly urbanized areas settle elsewhere, thus strengthening local autonomy capabilities.

TOWARDS A MORE SYSTEMIC ECOLOGICAL TRANSITION (6)

Alternative international mobility ?

- ▶ It is a fact that international mobility is a **vehicle for contamination**. Intercontinental transport has contributed to the spread of invasive exotic animal species that are harmful to local ecosystems (Asian hornet, fire ant, New Zealand flatworm, etc.). In air transport, the hope was that ventilation and air conditioning would prevent viral contamination. We know today that that is not the case. International mobility, via air links, will have to accept that reality (250).
- ▶ Can the fear of health-related risks, combined with greater environmental awareness, be sufficient to **curb the hypermobility** that has characterized the beginning of this century, especially the extremely high international mobility? The answer is yes if we consider that in 2019, one person in five reduced the number of international flights, relative to 2018, because of the impact of international travel on climate change (270).
- ▶ Several other factors are contributing to this situation :
 - ❖ The 2020 decade will be marked by a recession before growth resumes. The recession will weigh on corporate overheads as well as household finances.
 - ❖ The various green stimulus plans should lead to structural transformations (green taxes, decarbonization, etc.) which the air transport sector will try to cushion by raising fares.
 - ❖ As part of the broad-based reorganization of companies that could take place, the need to show high ESG* scores to attract investors could permanently alter the volume of international business travel.
 - ❖ A social constraint could be noted in the countries most committed to sustainable development, as is already the case in Sweden for example, to the detriment of air transport (but for the benefit of rail transport) (271).
- ▶ It is therefore likely that international mobility may not return to its pre-pandemic growth rate or volume. This could have multiple consequences, depending on the type of mobility concerned.
 - ❖ **Business travel** is likely to prove indispensable; however this assumption could be difficult to prove regarding bilateral meetings, for which the digital alternative is relatively satisfactory. Return on investment and carbon footprint will be the main arbitration criteria, in addition, probably, to the ability of airports to play their new role as public health watchdogs.

- ❖ **International gatherings** (professional congresses and pilgrimages in particular) are expected to continue since the virtual alternative cannot replace people's physical presence, impromptu exchanges being a key element. However, 'knowledge workers' will probably have to limit themselves to one or two events per year, which will exacerbate the already fierce competition in the sector of 'summits' and other international events.
- ❖ By 2020, tens of millions of the world's 164 million **migrant workers** (accounting for 4.7% of the global workforce according to the International Labor Organization) were forced to return home, jobless (1). According to the World Bank's October 2020 forecast, remittances to low- and middle-income countries are believed to have declined by 7% in 2020 (Europe and Central Asia: -16%; East Asia and the Pacific: -11%; Sub-Saharan Africa: -9%; Middle East and North Africa: -8%) (273).
- ❖ As for **cross-border workers** traveling by air (separate territories), they could be asked to permanently settle in one of the two countries in order to reduce their travel (salespersons, engineers).

As regards international **tourism** (see Data 5), there are two distinct trends

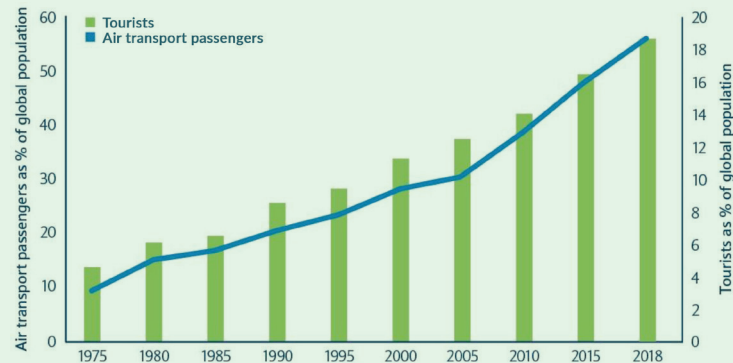
- ❖ The first is the **overall decline** of 74% in international tourism for all of 2020 (see Data n°5: Global tourism in figures): this has to do with uncertainty and with travelers' lack of confidence, but also to the rediscovery of domestic tourism (274). The extent of the rebound or recovery - hardly expected before 2022 - will depend on the return of confidence (vaccine), the economic situation of households and tourist fares.
- ❖ The second trend is **the growing rejection of mass tourism** by local communities, who seized the opportunity of the pandemic to become more vocal in 2020. Whether for identity-related reasons, as with the Baduy community in Indonesia, or for environmental considerations, as in the Maldives, there seems to be no going back (275). What is more, some countries in the South Pacific (Cook Islands, Palau, Fiji), which are heavily dependent on international tourism, have decided to use the economic tsunami as an opportunity to develop sustainable eco-tourism, in line with the United Nations' sustainable development goals and the Paris Climate Agreement (276).

Global tourism in figures

Tourism: Third largest economic sector in the world (277)

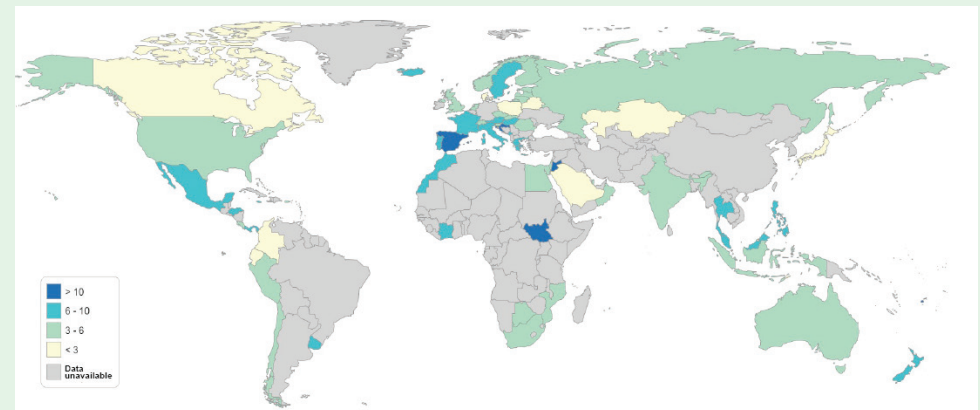
- ▶ 10% of global GDP in 2018 (277).
- ▶ 313 million people employed worldwide in the tourism, travel and leisure industry in 2018 (278).
- ▶ 1.5 billion international tourist arrivals worldwide in 2019; 1.8 billion expected in 2030.
- ▶ Growth: 4% in 2019, 5% in 2018 (the highest in a decade) (278).

Figure 51 : Increase in tourism and international flights (277)

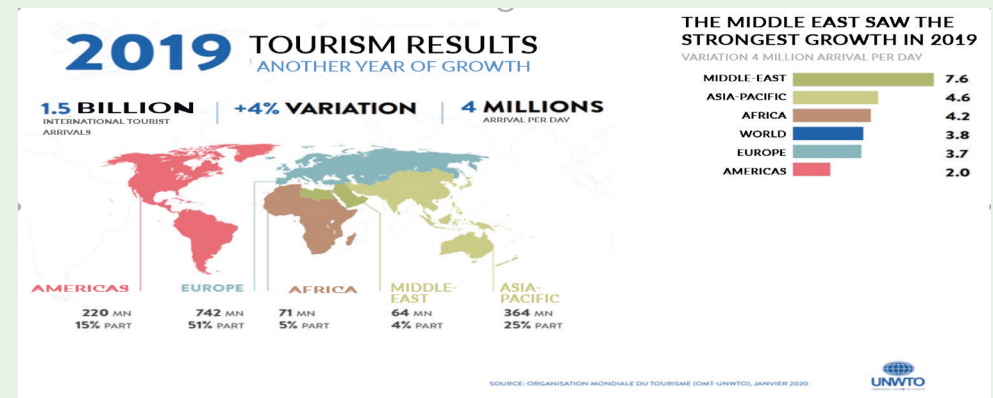


Source : World Tourism Organization

Figure 52 : Contribution of the tourism sector to GDP (in %), 2019

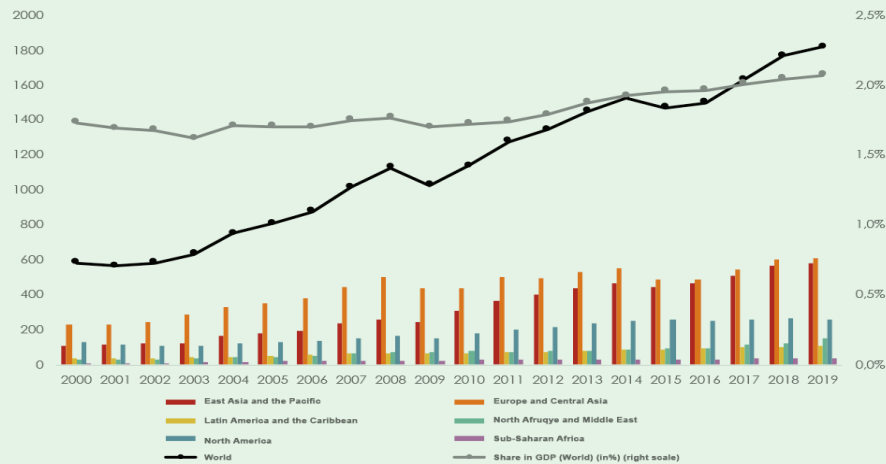


Source : IRES-processed, Tourism Dashboard, World Tourism Organization



Global tourism in figures (2)

Figure 53 : Evolution of global tourism revenues (in \$billion) and percent of GDP



Source : IRES-processed, World Bank data

Impacts of COVID-19 on global tourism

- ▶ Approximately 1 billion fewer international arrivals in 2020, a drop of 74% between 2019 and 2020: 84% in Asia and the Pacific, 75% in Africa and the Middle East, 70% in Europe and 69% in the Americas (279).
- ▶ A loss of approximately US\$ 1.3 trillion in international tourism revenues between 2019 and 2020, i.e. more than 11 times the loss recorded by the sector due to the 2009 global economic crisis (279).

Forecasts for post-COVID recovery

- ▶ A mixed outlook for the years 2021 and 2022, according to the World Tourism Organization's expert group survey, conducted in December 2020 (279) :
 - ❖ Nearly half of respondents (45%) see better prospects for 2021 compared to 2020, 25% expect no change and 30% predict the sector's performance will deteriorate.
 - ❖ 50% of respondents expect a rebound, but in 2022, not in 2021, while the remaining half see a potential rebound in 2021.
- ▶ 43% of surveyed experts do not foresee a return to the 2019 historical level before 2023, and 41% think a recovery will start in 2024.
- ▶ Most surveyed experts predict a growing demand for sustainable tourism activities and "slow travel" experiences.

TOWARDS A MORE SYSTEMIC ECOLOGICAL TRANSITION (8)

► It seems conceivable, therefore, that in 2020 a **sustainable slowdown in global air mobility will occur** after the pandemic, following the above-mentioned developments, including the slowdown of globalization (slowbalization) and the possible slower growth of very large post-COVID cities (*slowbanization**).

❖ This would have beneficial effects on :

- the environment: end of mass tourism, decarbonization, less pollution, even local ecosystem restoration,
- and for emerging countries or remote but connected regions (mountainous regions for example) likely to receive “tele-migrants*” thanks to the universal use of telework and the relocation of qualified jobs, as in India for example (280).

Nevertheless, there would be catastrophic impacts on air transport, on hotel, restaurant and event industries, and on the tourism industry as a whole, both on a global economic level (281) and on a social level: many workers in these sectors are informally employed and have no social protection.

► Whether international mobility picks up, stagnates or even temporarily declines, **new opportunities** (technological innovation, new trades) could emerge and bring about real transformations :

- ❖ Student **virtual mobility*** could extend to the workplace, to the point that an employee might have the right to replace on-site work with virtual work.
- ❖ The development of “**transparent**” **mobile communication technology** (smart, communicating glasses, for example) would make it possible to create an environment as close as possible to the actual, face-to-face one (joint visit of a factory, for example) in order not to hamper the transfer of knowledge and to facilitate remote work for international teams (seeing what the other sees, outside the office).
- ❖ **Digital equality across territories/regions** could become a fundamental condition for their economic development (tele-migrants, digital nomads, gig economy).
- ❖ As regards international transport, **airports now** play a role as a barrier against health risks – a role they may well retain. At the same time, **travel agencies** could also contribute to the mapping of global health risks and to the assessment of health conditions in tourist destinations, using a specific rating system.

Greening or sustainability ?

- ▶ In a world plagued by climate change and increased political and social unrest, **consumers** are increasingly aware of how their purchases affect people and natural resources. Today, products and services must not only be useful but also socially and environmentally responsible (261).
- ▶ In addition to this grassroots trend, **decision-makers** are increasingly concerned about the seriousness of the environmental situation, as shown by the World Economic Forum's Global Risks Report 2020 in which, for the first time in 15 years, the top 5 global risks are all about the environment and climate change (282).
- ▶ Finally, more and more **companies** are abandoning the financial value benchmark for that of quality growth, giving priority to ESG criteria (environment, social, governance). The adoption of a set of ESG metrics, which are currently being discussed, and which will bring consistency and transparency to reporting on corporate performance, could prove to be essential in demonstrating long-term value creation (283).
- ▶ In **international forums**, the Paris Agreement (2016), which has become a benchmark, is inspiring other agreements, such as the Escazú Agreement, the first treaty on human rights and the environment adopted in Latin America and the Caribbean (2018) (284).
- ▶ In this context, are the multiple initiatives (stimulus packages in particular) taken during the COVID-19 pandemic (see Data n°6: sustainable investment) to ensure a genuine ecological transition merely an opportunistic greening reflecting the aspirations of the populations, or do they represent a genuine commitment to transform the predatory economy of the Anthropocene into a more virtuous development model, at both the ecological and humane levels ?
- ▶ The first assessment report of the Greenness of Stimulus Index (see figure 52) is hardly positive: the economic degradation is such an urgent matter that states tend to invest in traditional means, which are often less costly than an ecological transformation. Complex dilemmas are involved: coal or nuclear power plants? Combating ivory smuggling or reaping the benefits of this 'white gold' resource ?
- ▶ The path taken by South Korea, and even China, in this regard could usher in a tipping point, leading Asia Pacific into a policy of sustainability that could guarantee its continued development and inspire the rest of the world (285).

Figure 54 : Greenness of Stimulus Index (GSI) 2020

The Greenness of Stimulus Index (GSI) assesses the effectiveness of the COVID-19 stimulus efforts by G20 countries and other emerging countries in ensuring an economic recovery that takes advantage of sustainable growth opportunities, and builds resilience through the protection of the climate and biodiversity.



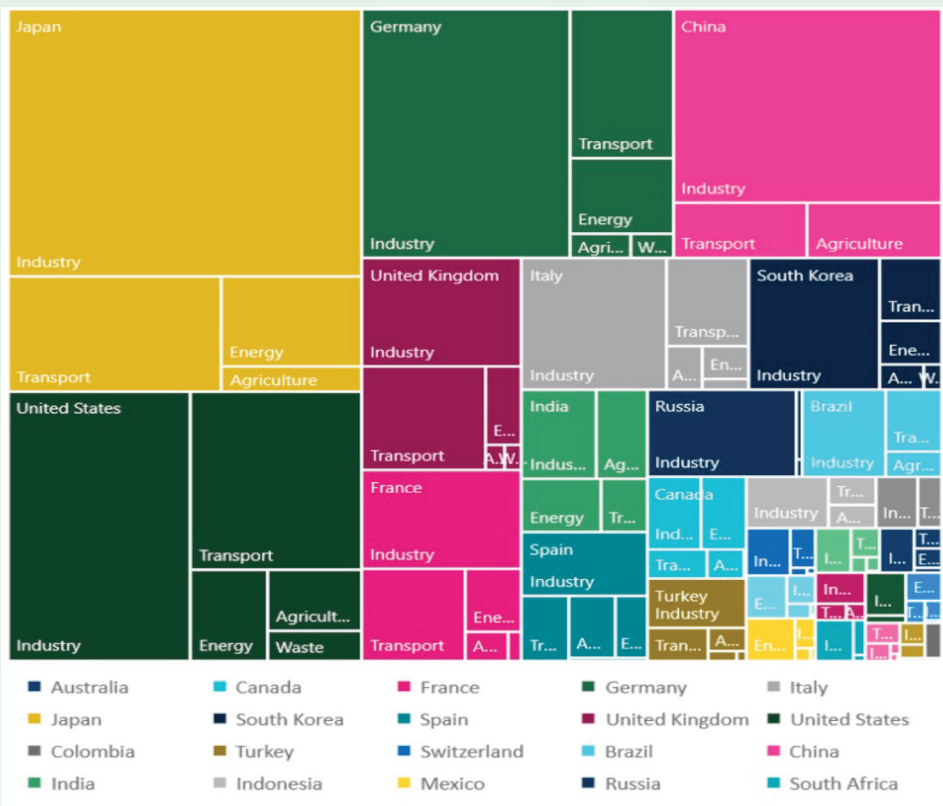
Source : IRES-processed, Greenness of Stimulus Index, vivid economics ; Finance for Biodiversity Initiative, February 2021

Taking sustainability into account in Asia

- ▶ The Asia-Pacific region is prone to worsening typhoons, tsunamis and other weather events, the pace of urbanization and increasing air and water pollution are also more serious concerns there than in some other regions.
- ▶ The economically and culturally diverse nature of the region makes it difficult to generalize. Nevertheless, there is a clear shift in attitude among governments, businesses, investors and citizens. Until recently, the main question about sustainability in the region was “Why worry about it?”, but now sustainability matters.
- ▶ China, for instance, is pursuing sustainability because a growing number of its citizens want a better environment and a more inclusive society. Given the importance of preserving stability and promoting progress, President Xi has made it clear that sustainability is a priority for the country” (285)
- ▶ In general, the UN Sustainable Development Goals have helped develop a common language among governments, businesses and other stakeholders to discuss sustainability and its implications for business together.
- ▶ With that in mind, new legislation and regulatory controls have been introduced to help steer the economy towards more sustainable activity. Thus, China, Singapore, Japan and Australia are members of the Network for Greening the Financial System (NGFS): green finance, macro-prudential changes, green bonds, social responsibility and Association of Southeast Asian Nations green bonds...
- ▶ This approach involves good anticipation for changing business models :
 - ❖ the adoption of sustainability standards generates a positive correlation between increased profits and reduced risks ;
 - ❖ sustainability implies a potential to improve profitability as consumer demand for products with sustainable credentials increases ;
 - ❖ sustainability is also a gateway for China and other Asian countries to move up the value chain, for example in the manufacturing of electric vehicles, renewable energy, but also recyclability.
- ▶ However, the large budget deficits in Southeast Asian countries due to the pandemic may hamper this sustainable development drive, although younger generations (less than 40 years) consider a healthy lifestyle to be their primary concern (286).

Sustainable investments

Figure 55 : Breakdown of environmentally relevant stimulus in G20 countries, 2020



Source : IRES-processed, Greenness of Stimulus Index, vivid economics ; Finance for Biodiversity Initiative, February 2021

- ▶ The environmentally-relevant stimulus for the G20 countries is estimated at \$14.9 trillion in 2020 (165).
 - ❖ The investment announced by the G20 countries in green activities (agriculture, industry, waste, energy and transport): \$4,6 trillion (165),
 - ❖ Estimated needs for a sustainable ecological transition: US\$6,3 trillion/year until 2030 (287),
 - ❖ In 15 of the G20 countries, economic stimulus measures will have a net negative impact on the environment (165).
- ▶ Public support for fossil fuels (288) :
 - ❖ US\$500 billion/year (77 economies)
 - ❖ 2019: 38% increase in support for fossil fuel production in 44 advanced and emerging economies.
 - ❖ Public subsidies for fossil fuel consumption*: US\$320 billion/year (289) of which \$150bn for oil products, \$115bn for electricity, \$50bn for natural gas and \$2.5bn for coal (289),
- ▶ The real cost of sending funds to low- and middle-income countries represented 6.8% of the amount transferred in 2020. This is still well above the level set (3%) in Sustainable Development Goal 10 (Target 1) (290).

Morocco's Green strategy :1 – From soft to smart power

- ▶ In a century, the Moroccan population has increased fivefold, exerting significant pressure on its environment: water resources, forests, coastlines, natural environments, ... (see IRES Strategic Report 2017: Morocco in the world: a panorama : global challenges for the biosphere).
- ▶ Aware of the sustainability challenges posed by the current growth model as well as climate change, Morocco embarked very early on a path towards more sustainable development (291).
 - ❖ First, it created an appropriate legal and institutional framework (National Action Plan for the Environment; creation of the National Charter for the Environment and Sustainable Development), culminating in the organization of the COP22 in Marrakech in 2016.
 - ❖ Then, it developed a national strategy to protect the environment and combat the effects of climate change (Climate Plan, Solar Plan, ...) in which all stakeholders are encouraged to participate (Corporate Social Responsibility, Climate Finance, ...).
- ▶ The success of this resilient model has led the Kingdom to deploy a “green diplomacy” policy with its African partners (Initiative for the Adaptation of African Agriculture, Blue Belt Initiative), thus exercising a de facto soft power.
- ▶ Green projects ahead of time (292) :
 - ❖ Harvesting fog: an alternative water source (2011).
 - ❖ Valuing the work of ragpickers: a source of recycling (2014).
 - ❖ Developing ecotourism (ecolodges).
 - ❖ Empowering women through ecological art (2013).
 - ❖ Smart irrigation: Dignity Squares (2002), nano-irrigation (2016), solar wells...
 - ❖ Organizing the organic sector: Moroccan Association of the Organic Production Sector (2009), then the Moroccan Inter-professional Federation of the Organic Sector(2016) (293).
 - ❖ Promote permaculture: Association Orange Bleue Maghreb in Morocco (2014).
 - ❖ Reducing energy consumption in traditional mosques and hammams(2016): renewable energy, wastewater reprocessing...
 - ❖ Building marine and coastal resilience: Blue Belt Initiative (2016)
- ▶ Today, an influential power is defined by the proper use - not the simple possession - of its resources and means of influence. That is the smart power* the Kingdom is putting in practice today.

Morocco's green strategy :2 – (Re)-greening the country

Two new strategies (294), decided before the outbreak of the pandemic, were launched by His Majesty King Mohammed VI in February 2020, at the end of the Green Morocco Plan.

Green Generation 2020-2030

- ▶ This strategy is based on two pillars: the continuation of agricultural development – with the aim of doubling the sector's GDP and agricultural exports by 2030 - and the need to put the human element at the center of this development effort.
- ▶ The strategy includes four main areas (295) :
 - ❖ Create a new agricultural middle class, similar to the urban middle class, capable of playing the same key role in material and intangible development, at individual and collective levels.
 - ❖ Foster the emergence of a new generation of young agricultural entrepreneurs through the mobilization and development of one million hectares of collective land.
 - ❖ Organize the regrouping of farmers around “next- generation” cooperatives.
 - ❖ Establish new support mechanisms for 2 million active farmers, in particular through the introduction of new technologies and the digitalization of agricultural services.

Morocco's Forests 2020-2030

- ▶ This strategy aims to make the Moroccan forestry sector more competitive and ensure the sustainability of forest resources thanks to an inclusive management model that creates wealth. Here again, user populations are at the center of this plan.
- ▶ It is built around four major areas (296) :
 - ❖ The definition of a new participatory management model, including the creation of more than 200 local forestry development organizations and a cadre of territorial facilitators.
 - ❖ The development and promotion of 10 national parks in order to launch a prosperous ecotourism sector.
 - ❖ The development and modernization of forestry professions thanks, in particular, to the creation of modern forestry nurseries involving public-private partnerships.
 - ❖ An institutional reform of the forestry sector to create a Water and Forests Agency (in charge of the sovereign management of the State's private forest estate apart from the national parks) and a Nature Conservation Agency (in charge of the management of national parks).

Priority to the **human** element

New generation of agricultural middle class

400,000 households accessing the middle class
3-4 million farmers with social protection benefits

A new generation of young agricultural entrepreneurs

Development of 1 million hectares of collective land
350,000 new farmers and agricultural entrepreneurs
150,000 young people trained

New generation of agricultural organizations

5-fold increase in grouping rate
30% of the state budget managed by the profession

New generation of support mechanisms

2 million farmers connected to agricultural e-services
5,000 agricultural advisors

**GREEN
GENERATION
2020-2030**

Sustainability of the agricultural sector

Consolidation of agricultural value chains

Doubling of agricultural GDP and agricultural exports
70% of production is processed

Modern and efficient distribution chains

12 upgraded wholesale markets
Upgraded souks

Quality, Innovation and Green-Tech

120 certified slaughterhouses
Number of health inspections doubled

Resilient and eco-efficient agriculture

Water efficiency multiplied by 2
Soil conservation



WHAT MAJOR CHANGES IN MINDSETS ?

The pandemic has mostly accelerated known trends in the economic and environmental fields. However, at the societal level, it has revealed the profound transformations already underway.

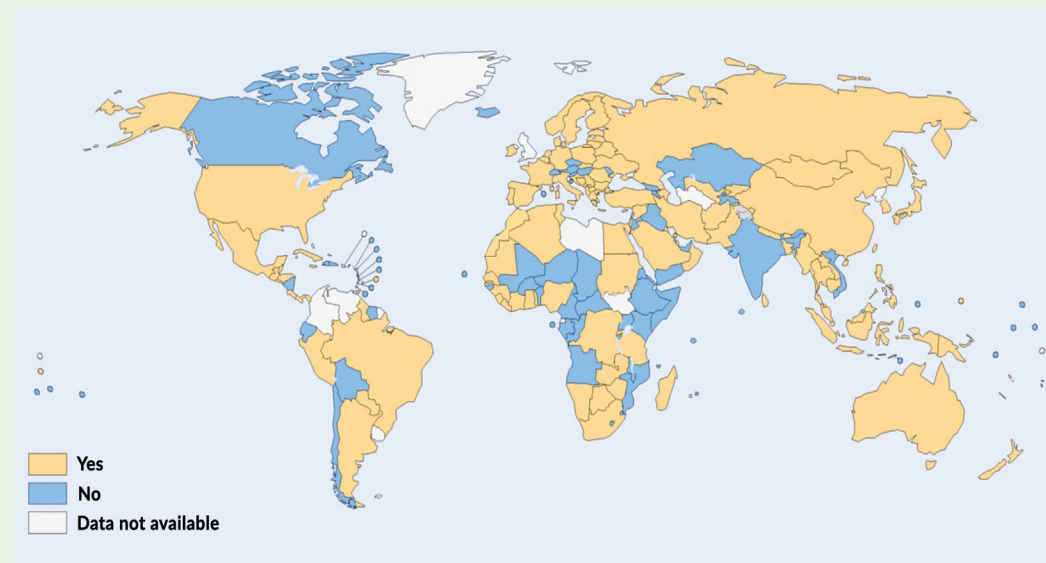
The era of asserted differentiation

- ▶ At the beginning of the history of mankind, the clan was a group in which individualities were very weak. However, they gradually came to the fore, with sedentary way of life and social structuring. As human groups became increasingly larger (societies), they had to develop social mechanisms (rites, education, rules) to contain these individualities in order to ensure peaceful management of the community.
- ▶ Gradually, pacification and education have made the person conscious of his/her individuality, to the detriment of the individual (an inseparable element of a whole). This awareness that each individual is a distinct being has led to a fragmentation of societies, contributing to the rise of communitarianism: traditional communities for individuals who felt the need to be taken care of or communities based on affinities for strong personalities.
- ▶ A new stage in this post-community evolution is emerging: more and more people are turning away from “appearances” and the external signs that allow their identification with specific communities (wealth, social status, profession) and are increasingly looking inwardly (introspection), discovering not only their expectations and values but also their complexity and contradictions.
- ▶ These are the so-called “**liquid people***” (271), who can no longer fit into traditional binary categories (“... and...” instead of “... or...”) and who want to be recognized for what they really are. Their quest for well-being - both physical and mental, individual and collective - becomes paramount. This increased individual differentiation is now being taken into account in multiple sectors, from human resource management to gender medicine, including marketing and design.
- ▶ This transformation, which first appeared in the West, where it is currently the most visible, is spreading throughout the world, at the same pace as the development of the global middle class. Weakened by the inconsistencies it creates and the inadequacy of traditional structures, it has many consequences, some of which have already been laid bare by the pandemic.

Mental health

Mental health: A worrying situation...

- ▶ In 2017, mental or neurological disorders affected one in ten people worldwide (11.9% for women and 9.3% for men), or nearly 792 million people (298).
- ▶ In fragile countries coping with conflict, the proportion of people with mental health problems was 22.1%, according to the World Bank (298).
- ▶ The number of people affected by different forms of mental disorders is as follows (297) :
 - ❖ Depression: 264 million people, or 3.4% of the world population.
 - ❖ Anxiety disorders: 284 million people, i.e. 3.8% of the world population (4.7% of women).
 - ❖ Bipolar disorders: 46 million people, i.e. 0.6% of the world population.
 - ❖ Eating disorders: 16 million people, or 0.2% of the world population.



Source : IRES-processed, World Health Organization, 2014

Mental health (2)

... worsened by the COVID-19 pandemic

- ▶ The pandemic has aggravated psychological disorders. For example :
 - ❖ according to the Centers for Disease Control and Prevention, during the health crisis, more than 40% of U.S. citizens reported having had at least one mental or behavioral disorder by the end of June 2020; 31% reported having developed anxiety or depressive states; 26% reported having had a high state of stress. These figures are three to four times higher than the levels reported in 2019 (299).
 - ❖ healthcare professionals are also subject to mental health problems due to direct exposure to the consequences of the pandemic. For example, extremely high rates of anxiety and depression were observed among Canadian caregivers (55% suffered from anxiety and 42% showed depressive symptoms) (300).
- ▶ According to the World Health Organization's COVID-19 Mental Health Impact Survey, conducted between June and August 2020, the pandemic resulted in disruption or interruption of essential mental health services in 93% of countries (301) :
 - ❖ Over 60% reported disruptions to mental health services for vulnerable people.
 - ❖ 67% of countries reported disruptions in counselling and psychotherapy services.
 - ❖ More than a third (35%) of countries reported disruption to emergency interventions.
 - ❖ 30% of countries reported disruption to access to medicines for mental, neurological and substance use disorders.
 - ❖ Around three-quarters of countries had seen at least partial disruption to school and workplace mental health services.

WHAT MAJOR CHANGES IN MINDSETS ? (2)

A long-lasting deterioration in mental health ?

- ▶ Some people are unable to manage these apparent contradictions between shared and individual priorities, between opposing facets within the same person (pedestrian and driver, employee and consumer, decision-maker and citizen), between the need to do what one wants to do and the social constraint which prevents that, between the comfort of the old world and the attraction of the new world...
- ▶ This difficulty of adjustment - within oneself as well as with the rest of the world - leads from “malaise” to a deterioration of mental health. Regardless of the physical causes that may be at the origin of this situation (illness, bad diet,...), this psychological malaise is reinforced by the intuitive perception of the context: the current particular historical situation (Great Transition, volatile, uncertain, complex and ambiguous world) is the source of profound ruptures and an agonizing uncertainty.
- ▶ The pandemic has added an additional layer of uncertainty and danger. The prospect - very tangible this time - of illness or loss of employment has generated devastating stress.
- ❖ Containment measures have proven to be a particularly aggravating factor, both for “liquid people*”, whose deprivation of freedom can be regarded as unbearable, and for people who find stability in their social community, or for those who have been exhausted by the combined burden of private and professional life.
- ❖ It should be pointed out that many people, regardless of age, are subjected to persecution within their families and that their condition has seriously worsened during the lockdown (302).
- ▶ The increase and extent of mental health deterioration has been significant enough to make it a major concern in the past 20 years. It is therefore a structural phenomenon. Although the end of the pandemic is slowing its **spread**, it is expected to remain **high in the decades to come**. Indeed, its “anthropogenic” causes are fuelled by the recognition of the major global problems to come (climate change, depletion of resources, etc.) and by the gloomy atmosphere created by the catastrophist discourse of the media. They feed feelings of despair, frustration or powerlessness - even a denial of reality (psychic numbing) (303).
- ▶ Confronted with the extent of this global phenomenon, companies are taking over from the medical sector and are beginning to develop programs such as Mental Health Matters (Starbucks) to help their employees.

WHAT MAJOR CHANGES IN MINDSETS ? (3)

Worsening conditions for young people

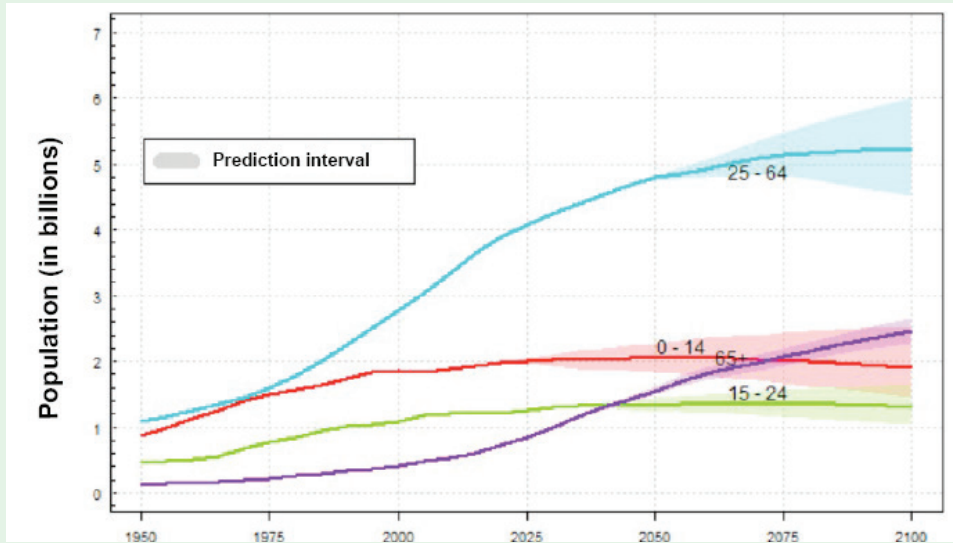
- ▶ Young people are often the first to suffer from this malaise (see Data n°8): 1 in 5 adolescents worldwide has mental or behavioral issues. Suicide is the third leading cause of death among 15-19 year olds (304).
- ▶ Their general health conditions continue to deteriorate worldwide, due to the use of dangerous substances (drugs, alcohol, tobacco), psychological disorders, severe depression and degraded physical conditions (malnutrition, lack or excess of physical exercise, lack of care) (305).
- ▶ Containment measures have had a particularly negative impact on young people's mental health, depriving them of the physical activities and social contacts they need most.
- ▶ Similarly, their employment opportunities are also worsening: unemployment among the world's 1.2 billion young people (aged 15-24) is much higher than among adults, and the COVID-19 crisis has adversely affected their employment prospects.
 - ❖ Young people's needs (before the pandemic) were estimated at 600 million jobs, to be created over the next 15 years (306).
 - ❖ The economic impact of the pandemic has already resulted in wiping out the equivalent of 130 million full-time jobs (based on a 48-hour work week) in the first quarter of 2020, compared to the pre-crisis situation (fourth quarter of 2019). The economic crisis is expected to further toughen the labor market for young people in 2021 (307).
- ▶ This situation could lead to a major crisis in developing countries, reinforcing the informal sector, increasing illegal activities and sending new recruits into armed gangs.
- ▶ The main factor of change will therefore be the ability of young people to embrace digitalization and entrepreneurship to create their own jobs in a sector where they have a real comparative advantage (digital natives).
- ▶ However, this will not be determined just by their personal skills, but also by the way in which society and the economic operators view them. Indeed, trust, respect and inter-generational links are factors that are just as important for success as the financing of young people's projects.
- ▶ The future of youths and their ability to integrate into the world will therefore largely depend, on the one hand, on the ability of adults to consider them as part of the **solution** rather than part of the problem and, on the other, on giving them hope and a foster a **positive vision** of the world (308).

DATA N°8

Young people

- ▶ In 2019, young people aged 15 to 24 accounted for 16% of the world population (309) : 19% in Africa, 16% in Latin America and the Caribbean, 15% in Asia, 13% in North America and 10% in Europe.

Figure 57: World population trends and projections, by age group



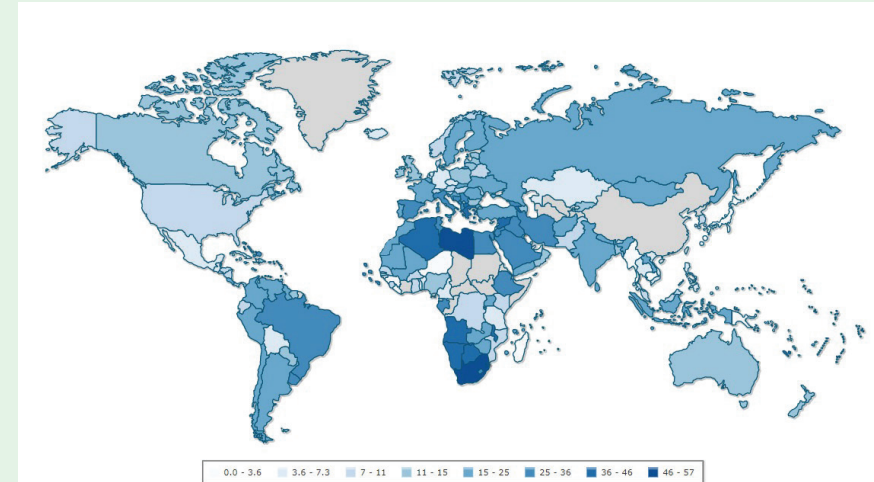
Source : Traitement IRES _ World Population Prospects, 2019. Population Division. DESA. United Nations

Figure 58 : Median age by region, 2019

Region	Median age
World	30,9
Africa	19,7
Europe	42,5
North America	38,6
Latin America and the Caribbean	31
Asia	32

Source : IRES-processed, World Population Prospects, 2019. Population Division. DESA. United Nations

Figure 59 : Youth unemployment rate in the world (youth ages 15-24 years) (in %)



Source : CIA World Factbook, January 1st, 2020 (International Labor Organization Data)

WHAT MAJOR CHANGES IN MINDSETS ? (4)

Education in crisis

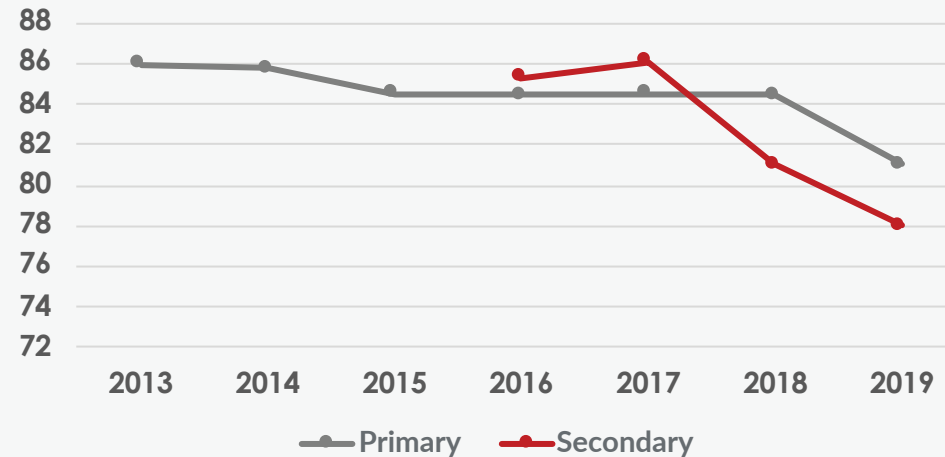
- ▶ The coronavirus crisis has severely affected young women and very young adults (18-24 years old) in low-income countries, not only in terms of employment and mental health, but also with regard to education. The shift to distance learning has only been possible in countries where there is sufficient access to the internet, families having the equipment and teachers with the necessary digital teaching skills. 9% of students in the world may never return to school and more than 50% may have to repeat a grade (310).
- ▶ If the loss of a year of schooling may be an affordable luxury in developed countries, it represents a major cost in low-income countries that can result, in the short term, in increased school dropout and marriage of very young girls and, in the medium term, in increased violence and loss of national skills. A decade of progress in these areas could be wiped out (311).
- ▶ However, there is a global learning **crisis*** (312).
 - ❖ It is a fact that the global literacy rate is increasing (86.4% of adults in 2019 (313)), especially among young people (15-24 years old: 91.73% in 2019 (314)), but this percentage conceals major disparities, with rates of barely 40% of 15-24 year olds in some countries (315).
 - ❖ In 2030, one in six children aged 6 to 17 would still be out of school, 6 out of 10 would complete secondary school and 20% of young people would still not be able to read in low-income countries (316).
- ▶ This **systemic** education crisis concerns access, equity, quality and financing (317).
 - ❖ A **number of divides** are deepening between the less and the more knowledgeable, between the schooling of boys and that of girls, between healthy and sick or handicapped children, between manual and intellectual skills, between poor and well-to-do families, between urban and rural areas ...

WHAT MAJOR CHANGES IN MINDSETS ? (5)

- ❖ Between an elitist higher education that is too costly and a mass education that is dragged down in public systems, **private education** fills the gaps, often without any control (Asia, Europe, sub-Saharan Africa).
- ❖ Reflecting parents' faith in the virtues of education, this dual system leads children to **burnout**, which explains suicide rates among high school students (318) as well as their refusal to continue their studies once they become adults.
- ❖ To this early burn-out, we should also add growing **violence** in schools, ranging from harassment to racketeering and physical aggression.
- ▶ The **quality** and **relevance** of the education given remains an issue of concern (317). In some places, the proportion of trained teachers has been declining since 2000, in others, a high proportion of school children have not acquired basic skills: this is called **learning poverty*** (see Figure 59). If the current trend were to continue, by 2030 learning rates would stagnate in middle-income countries and fall by almost a third in French-speaking African countries (316).
- ▶ The crisis is spreading to the developed world, as evidenced, for example, by a collective call in Europe for “a Marshall Plan for education and training” to prevent a socio-economic collapse, or as shown by the growing number of parents who opt for homeschooling (319).
 - ❖ Already, large companies are planning to redesign offices into daycare and educational spaces by 2023, increasing employee retention by more than 20% (243).
- ▶ Most national education systems remain deeply **conservative**, still hesitating to fully integrate digital technology in schools, even though it is the key to future jobs (freelance customer services, digital managers,...). Still grounded in the 20th century, they have not been successful in embracing this new state of mind (gender-free, favoring soft skills), nor are they teaching new, more appropriate subjects or offering a new vision of the world (see IRES Strategic Report 2019/2020: The New Development Model and Global Systemic Issues).

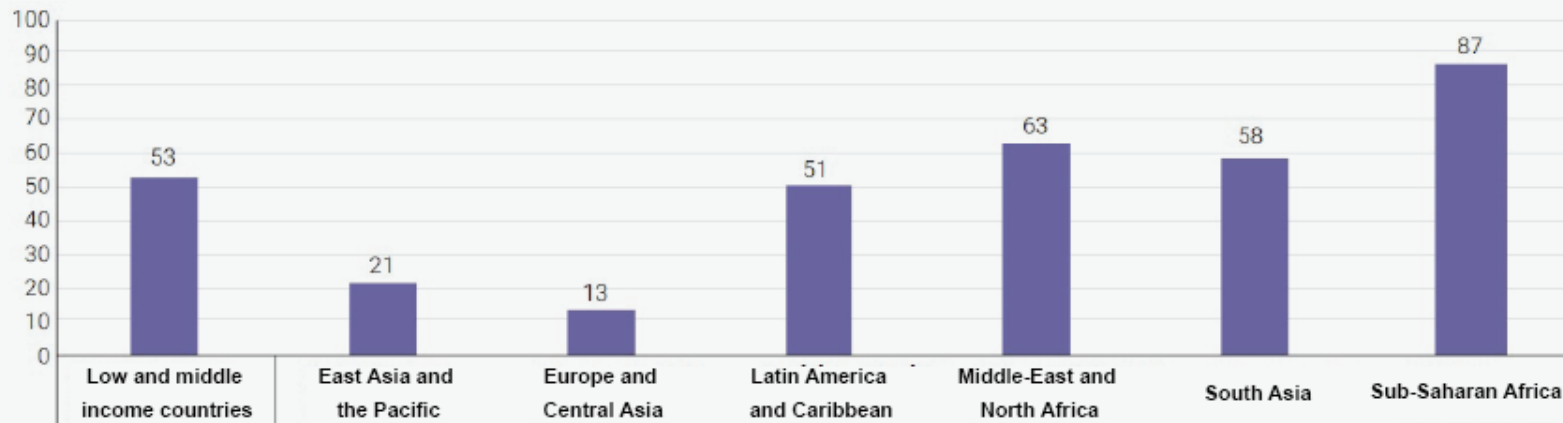
EVOLUTION OF TEACHER TRAINING AND QUALIFICATION

Figure 60 : Trained teachers (% of total teachers)



Source : IRES-processed, World Bank open data

Figure 61 : Learning poverty” rate of children aged 10, in low- and middle-income countries, by region (%), 2019



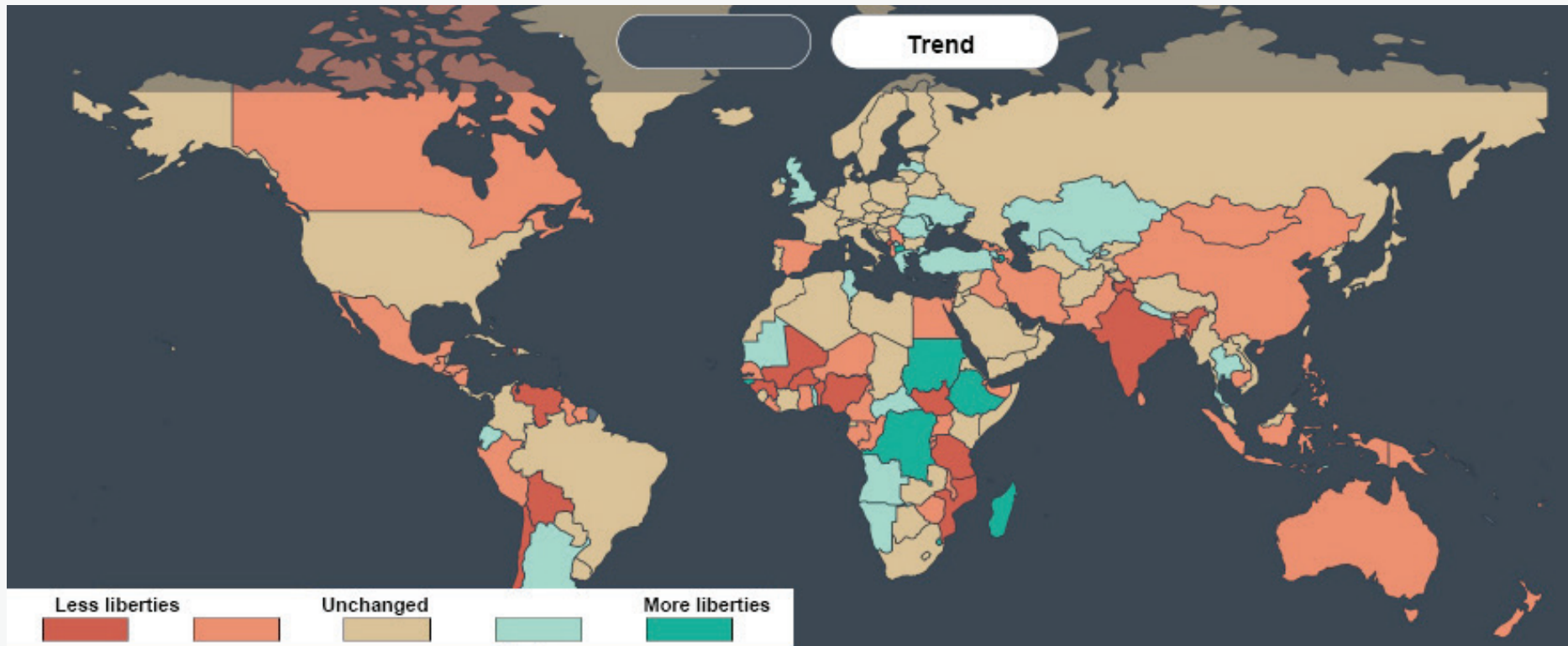
Source : Azevedo and others (2019) using the Global Learning Assessment Database (<https://github.com/worldbank/GLAD>); UIS Enrollment Data; and UN population numbers. Ending Learning Poverty: What Will It Take? World Bank. October 16, 2019

WHAT MAJOR CHANGES IN MINDSETS ? (6)

A strong aspiration to come out of the state of disenchantment

- ▶ The coronavirus crisis has painted a **dark picture** by revealing human fragility in light of confinement and uncertainty, the lack of preparation of governments in the face of such events - which are bound to happen again - and the darkness that has spread because of inaction (more domestic violence, human rights violations on a global scale) (320).
- ▶ This vision, circulated ad nauseam by the media, is unbearable for adults and for young generations already suffering from recession, unemployment, school drop-out... Extremely **serious** situations are emerging in developing countries, for example :
 - ❖ A 6-month stoppage of **HIV/AIDS** treatment (lack of supply due to the pandemic, rising pharmaceutical costs) could lead to 0.5 million additional deaths, according to the Joint United Nations Programme on HIV/AIDS (321).
 - ❖ While **hunger** has been on the rise around the world since 2014, 265 million people will suffer from critical food insecurity by the end of 2020, 130 million more than in 2019, including a minimum of 83 million due to the economic downturn caused by the pandemic, according to the World Food Programme (322).
- ▶ The conditions for recovery in the coming months will therefore strongly depend on the ability to emerge from this deadly disenchantment and find the necessary **energy to confidently rekindle hope** for the future. Several movements and many intellectuals are already calling for a paradigm shift (see Part I). But this is not enough to provide reassurance.
- ▶ To believe today, one must first see: see the other reality that the media has marginalized. Indeed, during this pandemic, as in all particularly bad situations, **human nature** has been at its best: showing solidarity, ingenuity, compassion, helping each other.
 - ❖ Whether through the #Black Lives Matter movement, the action of the Caremongers*, the repurposing of businesses to produce what is necessary... vast chains of **solidarity** were created throughout the year 2020 on a global scale.
 - ❖ The longer the crisis lasts, the sooner education can promote this **positive mindset** and the more likely it is that empathy, shared purpose and cooperation will prevail over distrust and become a sustainable, common facet of “liquid people”.

Figure 62 : Change in civil liberties between 2019 and 2020



Source : IRES-processed, Freedom in the world 2020 : Highlights from Freedom House's annual report on political rights and civil liberties

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WHAT MAJOR CHANGES IN MINDSETS ? (7)

- ▶ Beyond the containment measures, which have raised the question of the social usefulness of companies and professions, in particular, the so-called “invisible” professions (323), the fragility associated with the ongoing societal transformation reveals **people’s need for social usefulness** in order to feel good, whether this usefulness is manifested through organized solidarity movements or through daily gestures (such as doing the shopping for one’s elderly neighbors, for example).
- ▶ The diagnosis is therefore clear: fear, uncertainty, social isolation and a feeling of uselessness are the main vehicles for the disenchantment with the world, which many feel, irrespective of the actual situations involved. The **speed** with which the various countries will emerge from this systemic crisis therefore depends on two major factors :
 - ❖ The ability to restore hope, confidence and a sense of social purpose to all segments of their population.
 - ❖ Communication, transparent operations and the relevance of the changes made to convince these same populations that the construction of a better future is really under way.

Conclusion

- ▶ Never before has a peacetime event captured the interest of populations and affected their **state of mind**. The significance of **human capital** and its quality (education, mental health) have been reinforced.
- ▶ This awareness suggests **significant investments** will be made in these sectors (education and professional training, well-being, taking into account differences (diversity, equity, inclusion) - particularly by large companies, which are increasingly attentive to the human ecosystem (324).
- ▶ In a world of accelerated digitalization, in which the dynamics of globalization have slowed down - probably in order to achieve better balance - human capital, which accounts for more than 70% of wealth in OECD countries, compared to 41% in poor countries (311) – will become the key variable of the next decade.
- ▶ Depending on the energy put into truly positive and transformative action, and on the fundamental shift in the systemic relationship to the planet as a whole, the coronavirus pandemic could ultimately have a positive long-term effect.

What transformations in post-COVID Moroccan society ?

The issues of institutional trust and solidarity are among the founding principles of the 2011 Constitution.

The health crisis has highlighted the need to strengthen these aspects in order to foster the emergence of a patriotic citizenship, in which people are aware of the issues at stake, are committed to their roots and are progress-oriented, both individually and collectively.

From a bonds-based society to a society based on rights and trust

- ▶ The 2016 national survey on social bond, conducted by the Royal Institute for Strategic Studies, revealed a steady deterioration of institutional trust, which is still struggling to take hold in representative democracy environments. Parliament, the government, political parties and trade unions are struggling to earn the trust of Moroccans, unlike sovereign institutions.
- ▶ However, with the COVID-19 crisis, institutional trust has picked up, as illustrated by the very positive improvement in Morocco's internal reputation in 2020.

- ❖ When the crisis started, the Moroccan people, aware of their civic responsibility, embraced the strategies to combat COVID-19, despite their negative effects.
- ❖ Subsequently, the success of the vaccination campaign helped to promote trust in institutions.
- ▶ **Institutional trust** - which is one of the major pillars of peaceful coexistence - needs to be constantly nurtured and strengthened, through :
 - ❖ reforming, on a large-scale, public sector (see On the move n°1), which should improve the efficiency of public services, among other things,
 - ❖ building a health system capable of dealing with any new crisis, whether it is an epidemiological one or one resulting from a natural disaster,
 - ❖ accelerating the implementation of advanced regionalization, which proved to be one of the best ways to manage a crisis during the COVID-19 pandemic.

What transformations in Morocco's post-COVID Moroccan society ? (2)

Towards a more solidarity-based society

- ▶ Gradual universal access to social security coverage for all Moroccans over the next five years (2021-2025) is an important project that should strengthen institutional solidarity and contribute to the consolidation of social harmony.
 - ▶ It requires, on the one hand, a rigorous reform of existing social systems and programs and, on the other, a reinforcement of these programs' governance, notably through the effective implementation of the unified social register.
 - ▶ This project, which is divided into four major areas (see On the move n°1), is based on the principles of (325) :
 - ❖ social, territorial and inter-generational solidarity,
 - ❖ non-discrimination in access to social protection services,
 - ❖ anticipation, based on a periodic evaluation of the interventions of social protection stakeholders,
 - ❖ sharing: through the involvement of all stakeholders .
- ▶ The annual cost of universal social coverage is estimated at MAD 51bn, broken down as follows :
 - ❖ MAD 14bn for basic compulsory health insurance,
 - ❖ MAD 20bn for family allowances,
 - ❖ MAD 16bn for expanding the membership base of the pension scheme,
 - ❖ MAD 1bn for job loss benefits (325).
 - ▶ The implementation of this societal project is a major tool for :
 - ❖ integrating the informal sector into the national economic fabric,
 - ❖ ensuring the protection of the working class,
 - ❖ establishing social and territorial justice.

- ▶ COVID-19 has had a global economic impact and is contributing to the **slowbalisation** that has already started. China is the first country to recover and to resume growth, thus confirming its economic leadership in the years to come.
- ▶ The **digital economy** is emerging as a winner from this crisis and should play a key role in fashioning the global transformation of the way we live, work and travel.
- ▶ Hopes for a systemic **ecological transition** remain strong, even though most economic actors are reluctant to commit to it because they are anxious to avoid the upcoming recession.
- ▶ The deterioration of mental health, the situation of young people and the educational crisis are warnings about the ongoing **transformation of mindsets** and the inadequacy - even the tardiness - of public policies in this regard.



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ART II - CONCLUSION

- ▶ Will the post-COVID world really be different? The unprecedented level of uncertainty which has characterized the year 2020 and is likely to define the next five years requires great caution.
- ▶ Nevertheless, a forward-looking analysis of the various factors of change at work makes it possible to distinguish between trends that have accelerated as a result of the pandemic, such as digitalization, those that have become more pronounced, such as globalization, and those that have emerged, such as the change in mentality which is currently under way.
- ▶ Thus, against the particularly dark backdrop of the pandemic and its economic, human and social consequences, new development perspectives are now emerging.
 - ❖ The slowing down of globalization and the probable relocation of part of production and distribution networks give hope that this rebalancing act will make it possible to eliminate some of the current inequalities in development.
 - ❖ digitalization, which is neutral, like any other technology, is only a means that depends on the use we make of it. But its acceleration calls on decision-makers and users to urgently improve the infrastructure and technology that support it (user-friendly), to train the populations to bridge the digital divide and to ensure that fundamental human rights are respected.
 - ❖ The Great Lockdown has made it possible to rethink the way the city is designed, international mobility as well as global tourism. While nothing may change immediately in these areas, the ecological concern that has emerged during the pandemic will endure because it already existed before. It is to be expected that it will resurface as the recovery begins.
 - ❖ Finally, one of the advantages of this pandemic is that it has revealed the profound transformations under way in the human mentality and the unacceptability of certain situations (mental health, the education crisis, the situation of young people).
- ▶ Therefore, it is now possible to target the transformation levers to be built upon for the achievement of a new development model.



| Part III

ACTION LEVERS FOR A NEW WORLD

Will history repeat itself ?

- ▶ The subprime crisis (2007-2012) also raised high hopes for change. But in the end, it only led to enhanced security of the markets, without fundamentally calling into question the global financial system.
- ▶ The series of crises that have shaken the global economy in recent decades has however shown that the dominant system is out of steam. The systemic crisis caused by the coronavirus pandemic offers a fresh opportunity to "change the world".
- ▶ The chances of success are all the more significant today as the vision of the future is now normative: in the absence of a real possibility of anticipating global developments over the next 20 years, it is necessary to shape the desired future and no longer just hope for it to happen.

A radical shift

- ▶ The purpose now is to get out of the impasse into which a profoundly unequal hyper-globalization, coupled with international institutions with no real grip on reality and the predominance of the economic and financial factor over the human factor, have pushed the entire planet.
- ▶ This way out requires radical choices such as new systems of governance and new forms of exchange.

A goal to be taken very seriously

- ▶ Changing processes and ways of doing things is necessary, but not sufficient. For this pandemic is only one of a number of crises to come, due to overexploitation of the planet: scarcity of resources, environmental degradation and climate change.
- ▶ A new paradigm must henceforth guide the exit from the Anthropocene and inspire concrete and urgent actions.





Chapter 1

A STRUCTURAL SHIFT

The current development model generates economic growth which has been slackening since 2013 (see Figure 62). Its unsustainability was already clear to see, well before this pandemic. This has not been observed just by a few enlightened intellectuals, but also by a growing part of the population whose "social discontent" has been expressed throughout 2019 and is continuing to manifest itself.

Nevertheless, if political decision-makers understand this unsustainability, it seems they are having difficulties putting an end to it.

The first reason lies in the very **structure of political power**. The Westphalian order, which was imposed on the entire world over the last few centuries, has been subtly altered over the last fifty years.

The absolute independence of states is history. Their internal sovereignty is now challenged by international organizations (humanitarian or human rights). Part of their external sovereignty is potentially devolved to supra-state bodies (for example, in the framework of regional agreements), not to mention various international agreements - both bilateral and multilateral - which end up creating a tight web of constraints..

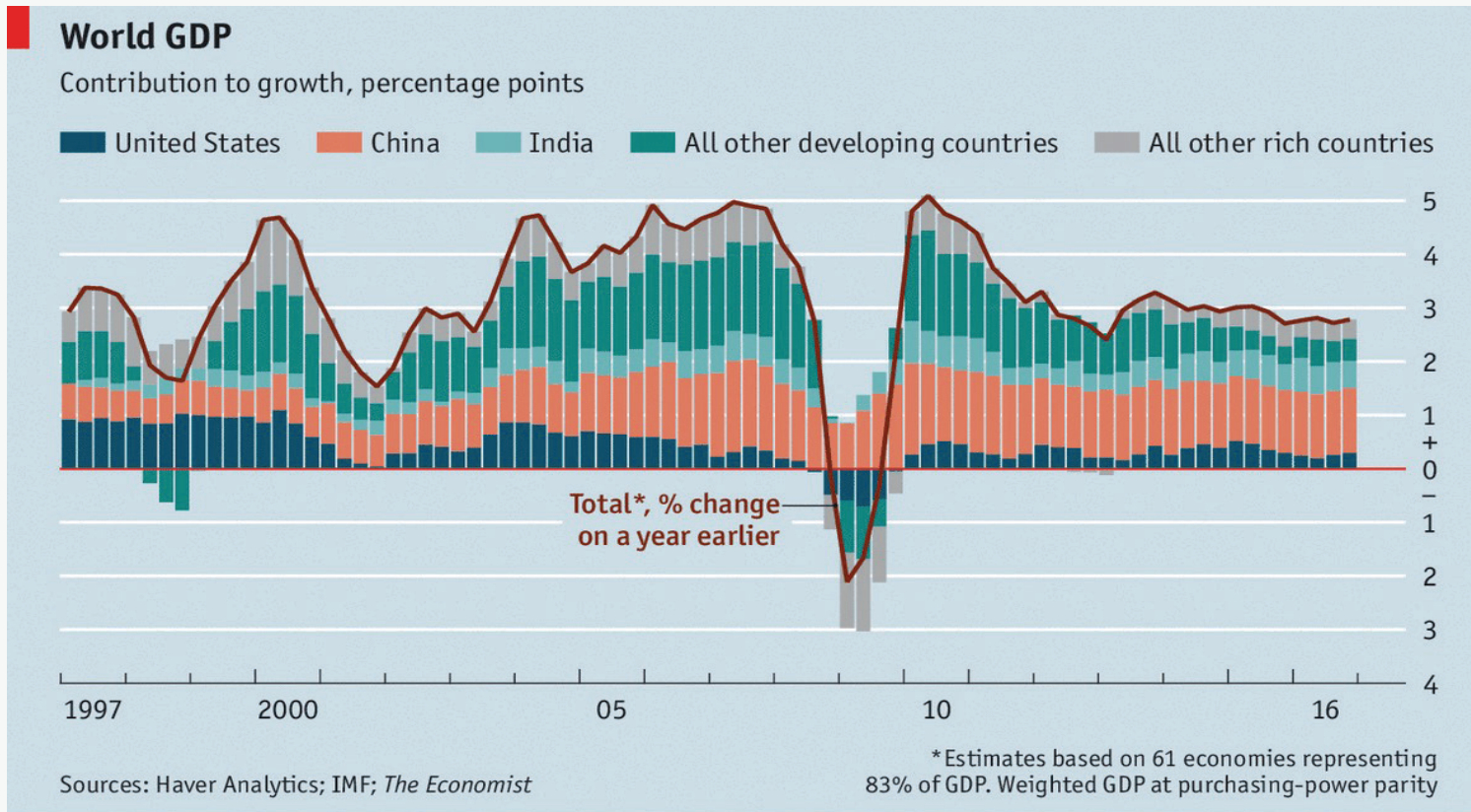
The balance of power - which is bedrock of the modern interstate system - is now based less on balanced military forces than on soft power and wars of influence, which are played out in international bodies around the world: a fragile balance that states are careful not to disrupt.

The second reason for their lack of responsiveness lies in the **absence of vision**. Indeed, the modern state has lost its way in a maze of bureaucratic routine, crushed by the weight of daily emergencies. It no longer takes the time to reflect and to chart a new inspiring, mobilizing and transforming vision.

In order not to offend their constituents, the Democratic states are playing it by ear, letting themselves be guided by the currents, addressing the most urgent matters and leaving it to the future to solve upcoming problems.

In the current situation, however, a new configuration is needed to deal with future risks and to manage current difficulties in the best possible way. This requires a redefinition of the state and its relations with its multiple stakeholders, in short a new governance.

Figure n°63 : Contribution of global GDP to economic growth



Source : <https://www.economist.com/economic-and-financial-indicators/2017/03/30/world-gdp>

A

NEW GOVERNANCE

IRES' Strategic Report, devoted to the need for a new development model, showed that a new form of governance was necessary, one that promotes anticipation and cooperation. The pandemic, which has shaken the world in 2020, reinforced that conclusion and showed the urgency of governing differently.

From now on, it is not only a matter of anticipating risks, but also of preparing for them, particularly where health and the climate are concerned. Moreover, the tensions exacerbated by the systemic crisis call for effective prevention of conflicts and of tendencies towards arbitrariness.

The return of the State

- ▶ To dampen the recession and support the recovery, unprecedented financial resources had to be raised. A new form of capitalism has ensued, based on **massive debt** and a **bank-state duopoly**. The potential abuses of this situation are obvious: soaring prices, speculation that benefit the richest, deepening inequalities, repayment conditions that could bring already faltering economies to their knees and destabilize entire economic regions. (see Focus n°13). Nevertheless, a real willingness to act has been demonstrated.
- ▶ Thus, while its influence seemed to be waning in recent decades, to the benefit of international supra-state organizations and private actors, the state is making a spectacular comeback at the national and international levels.
 - ❖ Asian economies, where the majority of debt is held by national actors and not by international creditors, have emerged stronger, notably Chinese state capitalism.
 - ❖ Conversely, countries where the government authorities are weak - because they are unable to shoulder their basic obligations towards their citizens - are likely to suffer impoverishment today and tutelage down the road.
- ▶ However, it is at the **domestic level** that the state must first regain its credibility. Indeed, injecting funds and developing green stimulus plans are no longer sufficient. The State is indeed expected to act on three fronts, regardless of macroeconomic disruptions (see Focus n°13) :
 - ❖ Improve health policies.
 - ❖ Be able to anticipate future risks and implement prevention policies.
 - ❖ Transform public action in light of the challenges posed by this systemic crisis, particularly by carrying out effective action towards suffering populations.

A NEW GOVERNANCE (2)

- ▶ The COVID-19 crisis has made people realize that oft-mentioned risks are in fact very real. They can also occur at any moment and strike indiscriminately, in the North or the South, in the West or the East. On the other hand, despite all the studies that anticipate and analyze those risks, states are not really ready to face them. To be sure, a small number of states have the financial or human resources to prepare themselves for any eventuality. Hence the need for a **strategic state**, which is able to rethink development, to see far ahead, to think in a systemic way, to establish priorities and to pool its resources for the benefit of greater efficiency and better preparedness.
- ▶ Whereas resorting to the State, the ultimate protector of the population, was so strongly expressed during this pandemic - leading to a keen interest in sovereignty-related matters - it was not so much because the situation was serious as because the State was already failing.
 - ❖ **Failing in terms of service provision:** in all countries, the emergency situation revealed dysfunctions and shortcomings that needed to be remedied, such as coordination of government services, collection of data on the most disadvantaged populations, and the need to develop adequate psychological resources.
 - ❖ **Failing in the development model it promoted**, which was very quickly compromised by the containment measures: increased unemployment and impoverishment, a wave of bankruptcies in small and medium-sized enterprises, a slowdown in demand and an economic recession.
 - ❖ And, finally, **failing in its ability to protect its populations from the external effects of the crisis:** too much dependence on global value chains or foreign direct investment*, insufficiently diversified economies, monopolized trade relations....etc.
- ▶ This is why the State in general - whatever the country concerned - can no longer be satisfied with a cosmetic reform: change must be thorough and radical; they must be in line with the new vision of the world that is emerging (see Part I); it is characterized by :
 - ❖ **a new approach to national sovereignty:** in addition to seeking strategic autonomy in food, health, energy...etc. that quest for sovereignty could lead to the re-engineering of global value chains in favor of regional value chains,
 - ❖ **a new development model**, which is more sustainable, more respectful of Nature and centered on human beings,
 - ❖ **new modes of governance** based on a revisited conception of the "state".

Post-COVID macroeconomics

In reaction to the economic and social disasters caused by the pandemic, governments have poured some 11.7 trillion dollars into the economy (326), .e. nearly 12% of the global GDP, mainly by monetizing loans from central banks.

This practice is an extension of the quantitative easing* that has been in place for the past ten years to support economic growth, in a context of zero or even negative interest rates. But this “helicopter money” has nothing to do with the past.

Thus, economies - and public policies - are facing extraordinarily complex problems, which defy economic science (327).

Three major issues arise: public debt, the welfare state* and economic growth.

Debts that are very difficult to repay ?

▶ Public debt in the advanced economies now exceeds 120% of GDP. In the short term, the question of repayment does not arise. However, in the medium term, the debts owed to governments and put back into the financial system will have to be repaid in one way or another.

- ▶ A high rate of inflation makes it easier to repay debts. But the liquidity injected into the economies is saved and invested in financial assets (stock markets) and real estate: a situation likely to fuel speculative bubbles and increase inequalities, but it will not create the inflation that could ease repayments.
- ▶ The most heavily indebted economies will then be in great difficulty - unless their currency, such as the dollar - is globally dominant. With some major economies at risk of default, the euro zone could break up. Asian economies, which are less dependent on international creditors or have state capitalism - like China in particular - would fare better.
- ▶ Such prospects lead to proposals such as “perpetual debts”, whereby states would only repay the debt service, which would be re-loaned by central banks.

Post-COVID macroeconomics (2)

The Welfare State going bankrupt ?

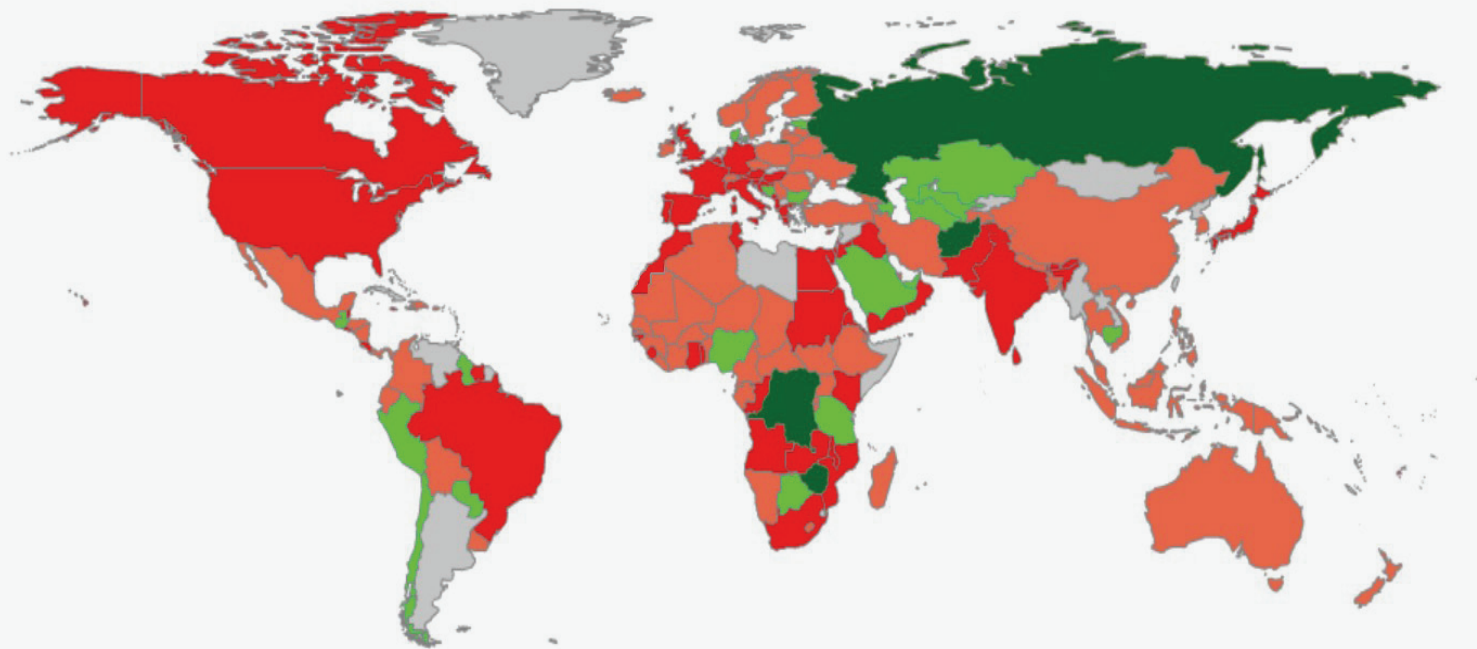
- ▶ In the advanced economies, thanks to the measures instituted (short-time working, state-guaranteed loans, etc.), the public authorities have found themselves in the position of employer, payer and insurer. Working closely with banks, they must continue to support companies, including financial capitalism. But they also need to take care of a population that has been impoverished by the crisis - even unemployed people. All of the above has to be done with reduced tax revenues, hence the need to borrow.
- ▶ This situation is not sustainable in the long run, especially in Europe where injection of money has its limits. It will sooner or later lead to a restructuring of both taxation (heavier on savings and capital) and public spending (redirected towards social needs) (238).
- ▶ At the same time, in order to cope with the crisis, a growing number of emerging countries are adopting sustainable social protection measures: by mid-September 2020, 166 social protection measures had been deployed in 46 sub-Saharan African countries, 84% of which concerned social assistance (329). So how can they be financed if the recovery is slow ?

Impossible growth ?

- ▶ One major consequence of the COVID-19 crisis is the collapse of business investment, which can only weaken growth. The latter is already sluggish in a large part of the world, especially in developed countries.
- ▶ This situation will make it even more difficult to repay debts and to redirect public spending towards sectors with significant needs (social, health), especially in view of the impact of climate change (successive natural disasters, the need to adapt the entire production system and habitats).
- ▶ This is why some advocate focusing stimulus packages on investments with a high ecological value, killing two birds with one stone. However, the market needs to be ready to generate new growth.

In this macroeconomic context, where we end up wondering about the negativity levels of interest rates, the distinction between monetary policy and fiscal policy has become blurred, according to the Bank for International Settlements (330). This questioning of the fundamentals of the economic system could lead to a complete overhaul of capitalism (331).

Figure 64 : World gross public debt ratio (in %), for the period 2020 - 2022 (estimates)



Source : IRES-processed, IMF databases : World Economic Outlook Database, October 2020

A NEW GOVERNANCE (3)

... but not just any state

- ▶ The transformation of the state which is needed today is a historic one. It is nothing less than a **new stage in the state's evolution**. The feudal state, marked by the arbitrariness of the most powerful, was succeeded by an enlightened state, characterized by its spirit of openness and by the cooperation of its elites. Then came the rule of law, substituting law for force, and establishing a new social contract between the rule-based state and its citizens.
- ▶ The time has come to build a new component of this stratification: a powerful, enlightened, law-abiding state and, henceforth, a **Care State**.
 - ❖ The Care State, a more mature form of the Welfare State, departs from the latter in its moral commitment and its ways of action. It does not replace the individual, but rather guides him, does not assist him, but facilitates matters for him; it does not enslave him, but serves him. It is a powerful, but fair, rigorous and transparent state.
 - ❖ Care is not just "care", but also "attention". This is why the Care State becomes a moral personality, concerned with paying attention to its inhabitants as well...
- ▶ Thus, the notion of 'citizen' could disappear in favor of that of 'inhabitant', putting an end to the age-old discrimination between those born in the country and those born elsewhere, between those who have the right to vote and those who do not... The term 'inhabitant' encompasses the entire population residing in a state, whether or not they were born there.
 - ❖ An example of this development was given by Portugal, which, since the first weeks of the containment, automatically regularized its immigrants to allow them to benefit from the economic and sanitary protections provided to its citizens.
 - ❖ Achieving this transformation would have important political, economic and social consequences, which must be anticipated.
- ▶ The Care State is not only the expression of a vision, but the embodiment of a character: that of a **dignified** state that cares for and protects its population; an **truthful** state that respects its commitments and the principles of justice and equity; an **ethical** state that meets the demands of respect for the fundamental rights of human beings and of living creatures.
- ▶ The previous transformations of the state were not made in a day. So this will take time. But the adoption of a new posture by the state can already guide current reforms and those to come.

A NEW GOVERNANCE (4)

Governance based on four priorities

- ▶ In the spirit of the development model described earlier (putting people back at the heart of development, taking care of nature, rethinking human interactions on a global scale and mastering economic, digital and societal exponentiality), the Care State is committed to governance based on four pillars: **trust**, vision, decentralization and truthful information.
 - ▶ Trust is the cement of this new social contract. To restore or enhance it, it is necessary to demonstrate true **societal governance** :
 - ❖ Inquire about the real expectations of the inhabitants.
 - ❖ Respond quickly to the most pressing of these demands.
 - ❖ Demonstrate that the population is heard and that solutions are developed and implemented.
 - ❖ Encourage collective intelligence and social innovation processes as close as possible to the territories concerned.
 - ▶ Vision is a powerful governance tool when it permeates all government departments and embodies a real commitment on the part of public authorities. Strategic governance makes it possible to give an inter-ministerial or parliamentary body, for example, the power to check whether governmental or legislative measures are in line with that vision and to report on them in the most transparent way possible.
- ▶ The **delegation** of powers should make it possible to accelerate the implementation of true local governance, which has proven, during this pandemic, to be one of the best ways of managing a crisis. The decentralization of public powers and the devolution of competencies and resources as well as the decentralization of public policies form the core of this approach, based on the principle of subsidiarity*.
 - ▶ Respect of **proven scientific facts**: the current progress of information and communication technology and the free access of each person to social networks have made it possible for serious information abuses to occur (infodemia, fake news, false rumors, etc.). **Information governance** should make it possible to :
 - ❖ enter into agreements with the web giants to highlight verified and verifiable sources (as was the case during the pandemic),
 - ❖ organize a joint watch to identify false information and publish content that responds to it,
 - ❖ develop and promote a code of good practices against misinformation, following the example of the European Union,
 - ❖ popularize scientific information and ensure its dissemination, as Canada is doing.

A NEW GOVERNANCE (5)

The making of globality

- ▶ In the aftermath of World War II, the broad family of intergovernmental organizations was first concerned with imposing peace, and then with arbitrating international trade on which economic growth was increasingly dependent.
- ▶ Thus, political, economic and social globalization characterized the 20th century. It has brought states, economic models and peoples closer together. It has fostered exchanges and growth, which in turn has promoted human development (education, health, quality of life).
- ▶ However, demographic growth has often outpaced economic growth, and both infra- and supra-state redistribution models have failed to play their egalitarian role.
- ▶ Moreover, states based on the rule of law have often behaved in an immature manner in their relations with other states, thus weakening the multiparty system, as shown by the stalemate in the World Trade Organization*, generating disorder (332).
- ▶ This stage of globalization has therefore reached its limits. Without profound changes to this **obsolete model**, inequalities will continue to grow and crises will follow, one after the other.
- ▶ The pandemic served as a trigger in this awakening: we knew the patient was sick, but not to this extent. The silence of inter-governmental organizations during this crisis sounded their death knell.
- ▶ From now on, efforts should be focused on building a **new form of post-globalization international cooperation**. The previous IRES strategic report already outlined the contours of this globality :
 - ❖ A planetary governance based on contextualized management and the principle of subsidiarity, on the involvement of stakeholders and on the pooling of resources, equipment and infrastructure.
 - ❖ Accelerated geopolitical globalization, favoring the mobility of individuals and the globalization of knowledge.

A NEW GOVERNANCE (6)

Some basic principles

- ▶ Globality rests above all on this **new anthropomorphic* identity of the Care State**. An innovative approach to international relations, capable of succeeding the feudal paradigm that has driven those relations until now, in which the strong dominate the weak, can only exist if it is based on this prerequisite.
- ▶ In this new concert of nations, **each state** has **one voice** and all voices have the same value, just as any individual within a state based on the rule of law. Each country contributes in the same ratio to its income. Thus, neither the richest nor the best armed can impose their law on the community.
- ▶ But whether it is 197 or 220, it is difficult to govern all together. This is why it is suggested that a **council of wise persons** be formed, perhaps composed of states that have demonstrated their ability to preserve peace and develop the quality of life of their populations.
 - ❖ This scenario is not improbable because it is already based on the reality of the multiple evaluations to which the states are subjected: rankings which indicate the best, the average and the worst, whether it be in education, health, security, etc, ...
- ▶ Just like human beings, these mature and responsible states could choose their **communities of belonging**, observing the same rights and duties as conscious entities.
 - ❖ This principle would guide the founding of **supra-state regions** with the potential to become federal entities, such as the United States or the European Union. Such processes are already underway on all continents, having reached various stages of development (333).
 - ❖ These communities can also be global and non-state entities, such as the World Economic Forum.
 - ❖ They would become de facto members of this new international community, developing a **multi-level governance**.
- ▶ Finally, this globality should rapidly make it possible to tackle the most crucial global problems: climate change (mitigation and adaptation), ocean pollution, decrease in arable land, rapidly dwindling drinking water resources, ... The mechanisms of a true **global governance** will therefore have to be developed based on totally new perspectives (and on the clear recognition of what has not worked previously), founded on the general principle of ubuntu* in order to get out of the mercantile logic of 'give and take.

A NEW GOVERNANCE (7)

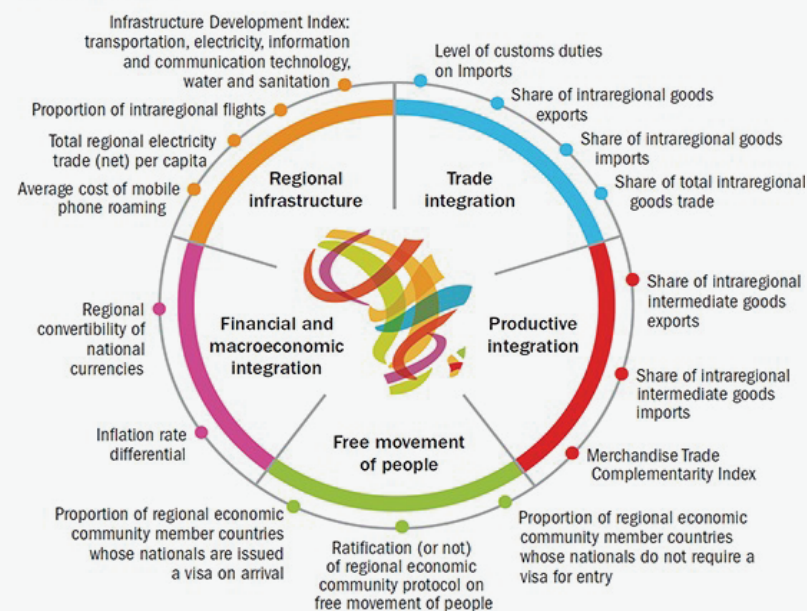
The three key missions of globality

The raison d'être of this post-globalization lies in the following three missions that give it legitimacy :

- ▶ **Protect the rights of every human being, preserve life and maintain peace** constitute the first of these missions, with immediate effect, in order to rein in the tendency to arbitrariness that may have come to the fore during the pandemic; the aim is to effectively counter the spread of armed gangs, illegal trafficking and terrorist movements.
- ▶ **Accompany and promote an open regionalization**, which does not transform the world into opposing citadels, is the second mission of this new globality, recognizing states and supra-state entities, resulting from regional integration, as full-fledged actors on the international scene.
- ▶ **Rethink and build a new international global system, not only in the political sphere, but also economically and socially**, is the third and most difficult mission, which will take time in order for it to be inclusive, to avoid making the same mistakes of the past, and to invent fairer and more effective mechanisms for action, balancing indigenization* and planetarization*.

Thanks to its soft power policy, Morocco could contribute to the three abovementioned missions, in particular the third one relating to the construction of a new international global system (see Focus n°14).

Figure 65 : African Regional Integration Index



Source : Economic Commission for Africa, African Union Commission and African Development Bank (2016)

What position for Morocco at the global and African levels ?

At the global level

- ▶ Morocco should be viewed in the world both as an actor in and a subject of international developments. In this regard, the Moroccan contribution could be threefold :
 - ❖ Demonstrate Morocco's commitment to a multilateralism that is inclusive, equitable, coherent, flexible, and adapted to the challenges of a vulnerable, uncertain, complex, and ambiguous world, but also based on knowledge of the facts and an economic model that aims not only to balance the needs of people and the environment but to reduce inequalities as well.
 - ❖ Pursue Morocco's international climate action through :
 - the promotion of new forms of agriculture, the fight against deforestation,
 - the development of renewable energy,
 - the protection of the oceans...
 - Support for global sustainable development movements.

- ❖ Showcase Morocco as a powerhouse of proposal :

- To set up an IPCC-like inter-governmental network for research on vaccines against pandemics.
- Develop an ethical charter for laboratories since the COVID-19 strain is the result of a sudden mutation of a coronavirus known to scientists;
- Compensate for the likely decrease in international funds devoted to climate change by proposing an alliance of countries committed to ecological transition, to a common global program, a mutualization of experiences and their findings, working groups to solve similar problems...

At the African level

- ▶ The health crisis could provide Morocco with the following opportunities :
 - ❖ Promote a new African model of endogenous development, in line with the aspirations of young African elites :
 - Rally the African intelligentsia, particularly from representations of the future of African youth, through events such as "The Dakar Thinking Workshops".

Quelle position du Maroc à l'échelle mondiale et africaine ? (2)

- Implement a program of ecological transition, by making permaculture and agroforestry systematic, by developing a pan-African training program in sustainable, intensive and ecological agriculture, by combating deforestation and the trafficking of wood and protected species, which is carried out by certain multinationals.
- ❖ Strengthen the effectiveness of the Kingdom's role in Africa: propose a new monetary policy for West Africa, in which Morocco would play a significant stabilizing role and build on Moroccan know-how to support would-be African emerging countries through the creation of local value chains and new development models, while focusing on sectors where the decline in imports from China has led to a local revival, as well as the health sector, in which the Kingdom was able to innovate during the lockdown.
- ❖ Positioning itself as a leader in technology :
 - Create a "Low-tech Lab" based on existing techniques to enhance the value of traditional knowledge and African innovations in this field and boost employment, based on the dissemination of these low tech labs.
 - Invest in the aeronautics industry, in the transport drone industry and in high-speed telecommunications infrastructure, which are necessary for the continent's digitalization.
- Build Morocco's capacity to become a digital power through the employment of digital natives, the alliance with African coders and the zero marginal cost economy. Hence the need to encourage Moroccan technology start-ups to join the Worldwide Afro Network and to support this project.
- ❖ Strongly commit the Kingdom to the Africanization of Africa :
 - Help Africa develop an efficient health system; propose to the African Union actions likely to reinforce intra-continental exchanges of goods and services, even if it means demonetizing them.
 - Contribute to the cooperation between the pan-African private sector and the African Union within the framework of the AfroChampions initiative, which has become the Africa COVID-19 Response Fund.
 - Propose the restructuring of the African aviation system with the creation of cooperative or mutualized airlines.
 - Create a pan-African common fund to support technology made in Africa, based on a priority program of broadband telecommunications infrastructure, micro-power generation, transport drones...

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NEW GOVERNANCE (8)

A first test: global health

“The COVID-19 pandemic exposed a collective failure to take pandemic prevention, preparedness and response seriously and to prioritize accordingly. It demonstrated the fragility of highly interconnected economies and social systems and the frailty of trust. The pandemic has crept into societies and nations, deepening their cracks. It has fed on inequalities, serving as a stark reminder that there is no health security without social security. COVID-19 has taken advantage of global disorder” (334).

The management of the pandemic in the health sector has clearly shown the consequences of the deafness of governments and international organizations to the warnings expressed for more than 20 years, from the article of the Nobel Prize winner, Joshua LEDERBERG in 1988 to the most recent report of the Global Preparedness Monitoring Board (GPMB) “A world at risk” (335). For COVID-19 is no accident, but an expected health event that will occur again in other viral forms if nothing is done.

If the current momentum is properly leveraged, **global health** could become the primary focus of this new emerging governance. Indeed, in the face of disease, there is no rich or poor, strong or weak: there are only patients who must be cared for and future patients who must be protected (336).

- ▶ Three initiatives, which are diachronic and independent, represent the tip of a larger movement towards a common goal: to perceive health as a global, interdependent system that requires new, decisive measures.
 - ❖ The GPMB 2020 Report emphasizes the necessity of investing in pandemic preparedness for human security and the need to reconsider how national security funds are spent.
 - ❖ Under the auspices of the African Union, two mechanisms, the Africa Task Force for Coronavirus and the Africa CDC’s Incident Management System, have been established to coordinate the efforts of member states, African Union agencies, and the World Health Organization*. The African Union has already shown a desire to put in place a common strategy to better deal with the potential spread of the virus on the continent.
 - ❖ The One Health movement, created in the early 2000s, promotes a unified, systemic and trans-disciplinary approach to human, animal and environmental health in order to better deal with emerging pandemic diseases. It has been adopted by the World Health Organization and the European Union. A number of One Health initiatives have already proven their effectiveness (337).

A NEW GOVERNANCE (9)

- ▶ The Care States could thus set up a true **systemic health program** on a global scale - a program that would usher in a new paradigm that makes it possible to imagine, evaluate and develop evidence-based solutions in order to build a healthier, more equitable (access to health) and more sustainable (environment and health) world. It would involve the following actions:
 - ❖ **Co-build a resilient socio-ecosystem** that does not lead to the emergence of pathogens and that prevents their spread, by mobilizing to this effect architects, ecologists, urban planners, physicians, ...
 - ❖ To conduct **programs of global interest with a normative purpose** (such as accelerated diagnosis and emergency vaccine research), in particular by taking action on patents.
 - ❖ Rapidly focusing action, or even concentrating it, on places where there is an **emergency** (epidemics, but also chronic diseases), and also engaging in anticipation, monitoring, communication and proactive action.
- ▶ To achieve this, the program could federate and rationalize the many existing initiatives (Coalition for Innovations in Epidemic Preparedness*, Planetary Health Alliance, etc.), whose scattering (governance and funding) has hampered their effectiveness in tackling the COVID-19 pandemic; this can be achieved by :

- ❖ pooling human and financial resources,
- ❖ using artificial intelligence to process data on a global scale,
- ❖ mobilizing scientists and researchers, military and humanitarian institutions, charities and public organizations...

What the G20 should do

COVID-19 is a wake-up call to the global community. The global health and financial architecture must be strengthened, and in parts redesigned, to enhance our preparedness and capacity to act with speed and at scale to fight future crises.

We should send a message of hope for the future: that the UN, G20 governments, and all interested partners can turn this crisis into an opportunity to build a new and more effective multilateralism, which more appropriately reflects current economic and political realities and is better equipped to address the challenges of the twenty-first century (338).

A

NECESSARY ENDOGENIZATION

The face of post-globalization

- ▶ In October 2020, before the second wave of the pandemic, the International Monetary Fund estimated that the world's per capita GDP might not return to its late 2019 level until 2025, with the poorest countries paying the highest price (178). These lasting consequences could result from (339):
 - ❖ structural changes within the global economy, such as consumer purchasing habits (e-commerce, locavorism, responsible purchasing, ...), the decrease in international tourism or the relocation of value chains,
 - ❖ the reallocation of labor and capital from declining to growing industries, but this will take time,
 - ❖ high unemployment and increased bankruptcies will slow the recovery.
- ▶ Only China has managed to make up for the first half of the year's GDP slowdown in late 2020 (178). The keys to this Chinese success are known. They include :
 - ❖ the emergence of a large **middle class** (40% of the world's middle class is Asian) and the development of **domestic demand** have enabled a major redirection of supply to the domestic market in 2020,
 - ❖ Regionalization in Asia has made it easier to absorb the economic shock: 60% of trade is now intra-regional and 59% of foreign direct investment comes from the region, which already accounts for 28% of global consumption (339).
- ▶ Nevertheless, the grey areas of the Chinese model persist: a large informal sector, very little social protection and 11 million people expected to fall below the poverty line in East Asia in 2020 (340).
- ▶ Thus, the pandemic has profoundly disrupted globalization - accelerating current trends (slowbalisation) and exposing the imbalances created by globalization (inequality) - without allowing the global economy to recover: without a global transformation, the "next world" could turn out to be even more unequal.
- ▶ In this environment, the attraction of protectionist policy and the resurgence of sovereignist trends are all the more stronger since governments, including the most liberal ones, will have to intervene massively - not just through cash injections, but also by making real **structural change** - to adapt to the new global situation (341).

Re-thinking Africa's development

Dozens of prominent intellectuals, writers and academics from across Africa have co-signed an open letter addressed to the continent's leaders, asking them to use the crisis caused by the coronavirus pandemic as an opportunity to spur "**radical change**" in direction : This is not just a matter of conducting endogenous policies, but of endogenizing African culture itself by allowing it to find its roots in order to promote a form of truly African independent development.

The time to act is now (342)

- ▶ *"In the call, we urge African leaders to also think beyond the current crisis as a symptom of deep structural problems Africa has to confront if it is to become one day sovereign and an actor that contributes to the new global order," Amy Niang, one of the academics behind the initiative, told Al Jazeera. "We are calling for a second independence". (Amy NIANG).*

- ▶ *"Rather than sit idle and wait for better fortune, we must endeavor to rethink the basis of our common destiny from our own specific historical and social context and the resources we have.*
- ▶ *Our belief is that 'emergency' cannot and should not constitute a mode of governance. We must instead be seized by the real urgency, which is to reform public policy, to make them work in favor of African populations and according to African priorities.*
- ▶ *In short, it is imperative to put forth the value of every human being regardless of status, over and beyond any logic of profit-making, domination or power capture".*

Re-thinking Africa's development (2)

Re-thinking development in Africa, for Africa

"A consequence of the COVID-19 crisis: re-imagining development is becoming as much an intellectual as a political imperative for African countries.

Far from reinventing new theories, new development paradigms will have to learn from history and adapt to the changing nature of African societies. The latter will have to take into account new local, national, regional and international challenges and issues that did not exist when they gained independence: transforming an informal sector that still contributes more than 80% to the production of national wealth, promoting local know-how, achieving the integration of the traditional and modern economies in a logic of exchange and complementarity, integrating cultural and environmental dimensions, promoting green and blue economies, etc.).

In this age of artificial intelligence and technological innovation, these technologies should enable African countries to carry out the transformation advocated by the African Union's Agenda 2063 "The Africa We Want".

*Whether one is an Afro-optimist or an Afro-pessimist (another debate that has seriously undermined the unity of African development thinking), there remains, in our opinion, a fundamental question that has not yet been resolved and that underlies all the questioning of the models adopted since independence: **What if the current development model is not "culturally and morally" adapted to the way Africans live and socialize ?***

Emergence or transformation, growth or sustainable development, the debate is still open. Like any thought that is fundamentally evolutionary in nature, the discussion of African development will continue to fuel debates in African intellectual circles. The greatest challenge for the new generation of African thinkers, organized around emerging schools of thought that are specifically African, is to grasp this issue with a view to promoting clarity and responsibility.

In this dynamic, let us remember this clear-sighted conclusion: Africa seems to be the continent of the future. In a world deprived of meaning, it reminds us that there are other ways of seeing the world and of living than the model of economy and society that locks human beings in the world of objects and the dictatorship of the moment, by stubbornly believing that the only valid cogito is henceforth 'I sell, therefore I am'.

Firmin Edouard MATOKO, Assistant Director-General, UNESCO
(Rethinking development in Africa, for Africa, OECD, 2020)

A NECESSARY ENDOGENIZATION (2)

- ▶ At a time when post-globalization governance is taking shape - the globality described earlier - the idea of a **post-globalization economy** is also emerging. Based on the lessons of the European and Chinese experiences, it would consist of a new mix :
 - ❖ A state capable of taking charge of the **social question** (social protection, health) - and therefore of inventing sustainable ways of financing it (debt is not considered a sustainable solution) - but also a state capable of guiding the economy in order to ensure the expected **ecological transition**.
 - ❖ The initiation of an endogenous development likely to both provide employment to those who lost it during the pandemic or who are entering the labor market, and to reduce the vulnerability of the national economy to international trade.
 - ❖ The creation of **regional markets**, which could, in the short term, support the indigenization of the least developed economies, allowing for the pooling of resources and a more profitable distribution of labor.
- ▶ Such endogenous, cumulative growth justifies the intervention of the state in the economy, since the **state** becomes one of the **factors of development** that allows the accumulation of human and technological capital and the creation of positive externalities.
- ▶ Although the theory is well known, its implementation is more complicated in emerging and developing countries for three main reasons :
 - ❖ Faced with the **urgency** of the economic and social situation, these countries do not have at their disposal the centuries that were needed by developed nations to constitute their state.
 - ❖ The **informal sector** represents, on average, two thirds of these economies; it escapes state control and capital accumulation (food economy), while serving as a safety valve.
 - ❖ The **lack of financial resources** affects the formation of human capital and the establishment of the material and immaterial infrastructure necessary for development; hence the low level of independence of these countries vis-à-vis foreign donors and investors.
- ▶ **Regional integration** thus appears to be the key factor in endogenization, which, if it cannot be achieved at the national level, can be accomplished at the level of a supra-state region. The development of African regional integration is a good example. Making this choice will have a positive knock-on effect on the maturing of emerging states. This implies :
 - ❖ accelerating integration wherever possible,
 - ❖ identifying needs, skills and specific competencies,
 - ❖ putting in place concerted, rigorous and controlled public policies.

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NECESSARY ENDOGENIZATION (3)

Health: Broadening the concept of national security

- ▶ The new state, which is anxious to ensure **open endogenous** economic development - that is, a state which supports its domestic market as a priority without denying itself access to foreign markets - and which is able to work with its neighbors to build a new **common space**, is also a Care State. This means that it considers **health**, both mental and physical, as a new parameter of the country's national security, and therefore makes it a **priority**.
 - ▶ No country or inter-governmental organization was ready to face this health crisis. The COVID-19 pandemic has exposed, almost everywhere, a **dual health industry**, in which luxurious islands stand side by side with do-it-yourself worlds. The challenge now is to turn it into a **life industry**, whatever the level of development.
 - ▶ Under the double constraint of lack of resources and urgency, a **new health model** must be established in all countries. It would be based on three pillars: a hybrid health system, the exploitation of a local pharmacopoeia and the strengthening of professional skills.
- ▶ The hybrid health system proposed here would have a threefold mission :
 - ❖ To apply the principle of subsidiarity through devolved health care (offloading hospitals), which should reduce the cost of the overall system, or at least improve its performance (see below).
 - ❖ Rapidly mobilize a critical mass of responders in the event of an emergency (epidemics, natural disasters, etc.) by involving all echelons of the system and mixed flying teams.
 - ❖ Contribute to a systemic improvement of the health of the populations concerned by :
 - reassuring the population through local care, which should be as close as possible to the families (care, information),
 - ensuring the transmission of basic skills to new recruits,
 - developing health literacy (hygiene, knowledge of anatomy).
 - ▶ In this hybrid logic, the rediscovery and use of **local pharmacopoeia** is essential. It has been too quickly overlooked that current industrial medicines are derived from natural molecules. **Herbalism** must therefore be examined scientifically, within the framework of paramedical studies (such as physiotherapy). It can replace basic medicines - often imported - thus opening up universal access to medication.

A NECESSARY ENDOGENIZATION (4)

- ▶ This hybrid health system, based on both an international and a local pharmacopoeia, would take the form of a **network of different health actors**, distributed equitably throughout the country :
 - ❖ A few **quality public hospitals** (like university hospitals), equipped with operational research capacities which make it possible to quickly prescribe the right medical procedures and make rapid diagnoses when necessary. Located in major urban centers, and offering air access, they would include specialized services (surgery, lethal diseases, etc.) and the main heavy medical imaging centers (magnetic resonance imaging, scanners, etc.).
 - ❖ An effectively connected local network made up of :
 - **local health centers**, such as dispensaries equipped with a telemedicine system and a herbalist's shop, located in neighborhoods and areas distant from major urban centers, with nursing and paramedical staff capable of treating minor ailments, obstetrics, screening, prevention and vaccination,
 - **urban medical centers** for diagnosis, analysis and prescription (such as medical homes), bringing together doctors from different specialties, some of whom would be specialized in telemedicine,
 - a **set of liberal health professions** (medical and paramedical personnel) capable of developing their own patient base, who would receive assistance to set up their business in return for their integration into the overall network, in particular, health monitoring networks.
- ▶ In the event of a confirmed emergency, this network, serving like a set of microgrids* that can operate as isolated islands or as a smart grid, would be supported by a specific backup system in order to create a **health strike force** capable of dealing with any new crisis, whether epidemiological or resulting from any kind of disaster. This rescue system would include :
 - ❖ **flying civilian and military humanitarian assistance teams** (e.g. Green Cross) trained in crisis medicine (disaster medicine, war medicine), with shared equipment (field hospitals, first aid equipment, etc.). These teams would receive regular training on how to work together, and their effectiveness would be enhanced by coordination at all levels and a concerted vision of their mission,
 - ❖ These teams could constitute a **specific, nomadic corps**, whose services could be mobilized abroad, thus ensuring its financial balance. They would be in permanent contact with other humanitarian or military relief forces in the world. This unusual pairing would reinforce skills and resources.
- ▶ Thus, this model would draw its strength and feasibility from the **hybrid mix** underpinning it: public and private, military and humanitarian, physical and virtual, fixed and nomadic, local and international, without neglecting the intermediate levels.

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NECESSARY ENDOGENIZATION (5)

- ▶ The keystone of such a health concept and of its success is trust. However, the latter will have to be based on :
 - ❖ a fundamental change in people's **perception** of safety, which is generally only guided by the notion of violence; this is why health safety is still insufficiently considered,
 - ❖ physicians should **listen** more carefully to their patients in order to make progress towards a more effective differentiated medicine, after having had a standardized approach for far too long,
 - ❖ **overcoming** the traditional divides between prevention and cure, modern medicine and traditional or alternative medicine (hypnosis, etc.), humanitarian and military, doctors and nurses, etc...
 - ❖ a better **individual management** of health, the general public and patients need to be more attentive to distinguish what really falls within the scope of medicine (not to rush to the emergency room for a cold, for example),
 - ❖ a more thorough **dialogue** between patient and practitioner and between practitioners and researchers, because if science is driving progress towards new accomplishments, the layman can also take science towards new avenues.



A NECESSARY ENDOGENIZATION (6)

Redefining strategic resources

- ▶ By revealing the fragilities of hyper-globalization, in particular the strong dependence on external suppliers, the COVID-19 crisis has forced states to redefine their strategic resources from the dual standpoint of ensuring the security of their population and promoting endogenous development.
- ▶ Traditionally, national strategic resources are tangible resources that provide a competitive advantage to the country (metals, water, arable land, etc.). However, with the Great Lockdown, four new strategic resources have emerged, given the role they have played during the year 2020: health, food, digital technology and education.
- ▶ **Health resources:** beyond masks and other medical equipment, pharmaceutical dependence on foreign countries became an obvious reality.
 - ❖ From condoms to anticancer drugs, from corticoids to paracetamol, the shortage has spared neither the North nor the South, due to a global demand that has been increasing by 6% each year, a sector's growing concentration and a massive offshoring of production which, by the way, is just-in-time production. Only countries that manufacture these products locally have been able to avoid this predicament.
- ❖ As a result, several countries and integrated regions, such as the European Union, have decided to relocate the manufacturing of drugs and active pharmaceutical ingredients (343). Whether it is to address such a situation or simply to come up with an alternative, the use of local pharmacopoeia is essential (identify, exploit, preserve)).
- ▶ **Food resources** have become all the more strategic as the question of their quality (impact on health) and their origin (environmental impact) is coming to the fore. In Africa, the issue of food security is becoming more acute due to the breakdown of supply chains and the inability of the local agri-food industry to meet the continent's needs.
 - ❖ Nearly 2 billion people suffer from food insecurity, which contributes both to a deterioration in health (malnutrition) and to an exacerbation of conflicts (Somalia, for example)(344).
 - ❖ Emergency measures exist thanks to the mobilization of all actors, from "soup kitchen" associations to school canteen subsidies.

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NECESSARY ENDOGENIZATION (7)

- ❖ Nevertheless, in countries where food security has become strategic, the programs to be implemented must address the root of the problem - food production - and also cover the following areas :
 - the development of subsistence farming and urban agriculture through community gardens and kitchens (as in Brazil),
 - improving yields through more ecological techniques such as agroforestry and permaculture (Mauritania, Benin),
 - the return to the cultivation of local species that consume less inputs, are non-sterile (seeds) and are better adapted to climate change (global crop diversity has declined by 75% in a century),
 - support for family farming through the establishment of short circuits, local markets and “fair prices” that are beneficial to both the low-income consumer and the farmer because there are no middle men,
 - redirecting vegetable exports towards domestic markets, thanks to an adapted public policy,
 - efficient management of surpluses (loss of production, food waste), since a third of the food produced is lost.
- ▶ **Digital resources** have proven their crucial importance during this crisis: teleworking, e-commerce and e-learning have become the three pillars of resilience. Mastering those resources will be all the more necessary in the years to come (see Part Two) because that determines governance modes as much as production processes and the resumption of employment. This is why a special effort must be made to secure three key aspects of this new form of development :
 - ❖ The technical aspect: the widest possible access to intangible communication infrastructures (internet connection), accelerating the deployment of broadband (5G).
 - ❖ The legal aspect: authorizing VOIP on a commercial basis, intellectual property, facilitation of the platform economy...
 - ❖ The cognitive aspect: universal training in web tools, development of IT professions (coding) and web professions (assembly, webmastering, community moderation, etc.), preparation for virtualization (e-education, e-sports, e-public services, etc.).

A NECESSARY ENDOGENIZATION (8)

- ▶ **Educational resources:** the paradoxical awareness of the inadequacy of certain national education systems - a reality which is known but seldom dealt with - and the need to send children to school so that they can escape domestic violence, precarious work or forced marriage, or simply so that they can have a meal a day, has put the educational issue on the agenda (345).
 - ❖ In many countries - developed as well as developing ones - a **structural overhaul** of the entire education system (school and university, general and vocational) is needed to adapt to the world to come. To do this, it will be necessary to :
 - **overhaul the school and university system**, which is struggling to cope with the demand for education and professionalization (introduction of the company in the school, for example),
 - **revise the curricula and teaching methods**, and even the objectives (learning to learn, critical thinking), in the light of digitalization,
 - **revisit and reform the teaching profession:** efficiency criteria, continuous training and modus operandi, in particular by developing a digital pedagogy.
 - ❖ In the meantime, and as shown by numerous innovative initiatives and the rapid switchover of traditional classes to e-learning, it is possible to accelerate the **digitalization of education** and promote a **hybrid** school and university system, in order to :
 - ensure continuity of educational service for sick, disabled or injured children,
 - supplement the resources available to students to better address differences in school performance (differentiated learning), especially for students at risk of dropping out;
 - offer private lessons and online educational resources, as well as an edutainment industry which is almost non-existent today but which has proven pedagogical benefits (Khan Academy for example)
 - make sure not to deepen inequalities: 22% of internet users in sub-Saharan Africa versus 62% in Morocco for example (World Bank, 2018)
 - ❖ The COVID-19 pandemic has worsened the non-enrolment of children (258 million students aged 6 to 17 worldwide in 2018 according to the United Nations Educational, Scientific and Cultural Organization), causing significant de-schooling (Asia and Africa), especially, of girls. In many countries, the priority is therefore to get children back to school. Policies such as the Bolsa Familia (Brazil), which make the payment of a minimum family income conditional on the effective enrolment of children in school, should become more widespread (364).

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NECESSARY ENDOGENIZATION (9)

- ❖ In addition, **the content of the education system** is the cornerstone of any new development model. It must be reviewed to take the following into account:
 - endogenization : we must put an end to “intellectual extraversion”, i.e. the systematic adoption, without contextualization, of Western paradigms that lead to favoring the approach of developed countries to the detriment of building an endogenous development paradigm based on the local economy (short circuits), carbon sobriety and the reduction of inequalities. (See Focus n°16),
 - ecology: from kindergarten to university, teaching the basics of ecological science - which studies the relationships between all living beings, from bacteria to plants and animals - is essential (see below),
 - humanism: peaceful relations between adults require specific relational training that is provided from kindergarten onwards (cooperation and relational ecology, soft skills, etc),
 - the development of artificial intelligence: as most knowledge is now stored on the web, children must learn to find it, understand it and distance themselves from it.
- ▶ The resources that are considered strategic today (health, food, digital technology and education) are those that the traditional state has neglected the most (health and education) or delegated to the private sector (agri-food and telecommunication industries). To reinvest in these areas, the Care State, operating in an environment marked by limited resources, will have to be particularly **innovative** and encourage **experimentation**.
- ▶ In addition to the financial constraint that the slowdown in economic growth is expected to create in the coming years, a new constraint - intellectual this time - has emerged: the **need for a crisis-management culture**. Cross-cutting all these strategic resources and being an important feature of indigenization, the organization of these new systems - policies and behaviors - can no longer be done without proactively taking into account the risks that are emerging and without putting in place, at all levels, a real culture of, and a real capacity for, crisis management.

Morocco: Making Moroccan economy endogenous

For Morocco, the endogenization of the economy is possible because, during the containment, the national industry has shown an unprecedented capacity to adapt.

In addition to solving the structural problems that have long hindered the development of the national economy (limited competitiveness, undercapitalization of enterprises, rent-based economy, corruption, etc.), this indigenization would involve the following levers :

- ▶ **Ensuring the local production of part of the imports, in particular, high-necessity** food and sanitary products, and those which are the object of a commercial bidding between the countries where the pandemic is raging; this would make it possible to reduce the heavy trade deficit: as food security challenges are becoming crucial, special attention should be paid to the agri-food sector, by creating fully integrated ecosystems in the territories, based on the use of local resources.

- ▶ **Initiate a recovery in the national, regional and international value chains of goods and services** by embracing a technological shift in Morocco's global businesses to increase their competitiveness and secure their future. Moreover, Morocco should seize the opportunity to relocate some activities from Asia to Europe through a re-focusing of industrial policy to promote the creation of part of the value added in the country.
- ▶ **Betting on the industry of the future**, which is based on both advanced digitalization and environmental sustainability, by creating the necessary environment for this type of activity and by concluding partnerships with global leaders in this field.
- ▶ Finally, **reducing Morocco's dependence on the outside world** for strategic resources, ensuring food security, targeting carbon neutrality by 2050, accelerating sustainable development... all of these measures will support indigenization.

Reduce Morocco's dependence on foreign strategic resources

Ensuring Morocco's food self-reliance

- ▶ With a period of famine looming in sub-Saharan Africa and soaring food prices worldwide, Morocco's food security needs to be carefully considered, in line with the Green Morocco Plan and the "Green Generation" plan. This is all the more important as the water stress that structurally affects Morocco cannot be overcome in the long term by anti-drought plans, regardless of their effectiveness. It is therefore necessary to act in a systemic way :
 - ❖ by simultaneously developing a precision industrial agriculture which makes it possible to optimize investments and yields by taking into account the specificities of the environment and permaculture in traditional farms to cope with water stress: permaculture consists in creating ecosystems by drawing inspiration from nature and its functioning as well as from traditional knowledge,
 - ❖ by cultivating species adapted to new ecosystemic realities, particularly global warming, the scarcity of water resources as well as the imperatives of environmental protection and the need to protect seasonal agricultural workers, ...

- ▶ The achievement of strategic self-sufficiency in the food sector also requires the adoption of a new governance mode in the management of natural resources, based on the water-agriculture-natural ecosystems nexus (see Focus n°19). This approach, which brings coherence to public policies in these sectors, would make it possible to meet the conditions for the implementation of the national drinking water supply and irrigation program 2020-2027.

Targeting carbon neutrality by 2050

- ▶ Morocco should aim for carbon neutrality by 2050, by basing the development of electricity generation exclusively on renewable energies, by ensuring the transformation of energy-intensive sectors such as transport, industry and residential to decarbonized systems, by placing energy efficiency at the same level of priority as the development of renewable energy, and by promoting the production of energy from biomass to generate biofuels. As it opts for decentralized photovoltaics, the Kingdom could create many green jobs.

Accelerating sustainable development

- ▶ In addition to adapting to climate change, a national project to reduce the ecological footprint should be put in place, in addition to regenerating damaged natural resources, enhancing ecosystem services through soil restoration and agro-forestry and promoting climate-smart agriculture.

A NECESSARY ENDOGENIZATION (10)

Endogenization and the social issue

- ▶ In 2020, China has clearly shown the limits of the global terms of trade: with emergence comes the increase in labor costs as well as the development of a domestic market that is both larger and more demanding. It therefore becomes logical to produce primarily for this domestic market rather than for export purposes, especially during a global crisis such as the COVID-19 pandemic.
 - ▶ This growth dynamic seems today to be the only one capable of fostering the emergence of countries hitherto stymied by rent-based economies with little redistribution, or by wages too low to allow the development of an endogenous market. But this requires a **change in scale**: before reaching the global market, developing countries must first become territorially anchored.
 - ▶ The **open endogenization** prescribed here entails a twofold danger for local populations: openness is a threat to the least competitive, while the effort to develop the domestic market temporarily reduces overall wealth because of the decline in exports.
- ▶ **Territorialization** offers a solution at two distinct levels.
 - ❖ On the one hand, **integrated regionalization** - which is the result of the regional integration process - offers a way to open borders without exposing the poorest to overly unequal competition, such as between developed and developing countries, because of the roughly similar levels of development within a region. Intra-regional sectoral coordination, based on a precise mapping of the strengths and weaknesses of each partner, free mobility of professionals and significant investment in vocational training will make it possible to protect those most exposed to this new competition.
 - ❖ On the other hand, **sub-national territorial development** is essential to strengthen the local economy, which is necessary for the survival of the most disadvantaged populations and to improve their production methods. The backbone of this development consists in the proper use of local potentialities - which requires some collective and creative intelligence - and in initial and vocational training.

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NECESSARY ENDOGENIZATION (11)

- ▶ The second pillar in the effort to address this social issue is **employment**. Two main measures contribute to its development: self-employment and the social and solidarity economy.
- ▶ **Generalize and facilitate self-employment**: in order to stem the spread of informal employment and ensure better social protection, the promotion of the gig economy (assignment-based work, freelance work, use of digital platforms) can quickly prove to be a job creator, in all sectors of activity (agriculture, personal assistance, Internet jobs, etc.). This must be based, in particular, on :
 - ❖ the simplification of administrative and financial measures to create one's own occupation (auto-entrepreneur) and adaptation of regulations; in particular, the creation of a lifetime worker number, assigned to each person of age (see proposal set out in IRES's 2019/2020 Strategic Report on the Development Model), which would be sufficient for any procedure,
 - ❖ the implementation of online "labor exchanges" (marketplaces) where job providers and job seekers can find each other online, without administrative or digital constraints, thanks to ergonomic applications (see African coders),
 - ❖ the development of digital and legal instruments that encourage paid work and the promotion of their use, such as mobile payment (M-PESA type), which allows financial transfers (social benefits, salaries, etc.) to people without access to banking services,
 - ❖ supporting the creation of a platform economy that allows for the rapid creation of jobs by facilitating contact between the consumer and the producer (online sales), or the job provider and the job seeker (missions) thanks to the ease of work (creation and closure of activities and jobs) and efficient digital infrastructure (quality broadband),
 - ❖ the creation of collective office spaces offering access to shared office automation and digital tools.

A NECESSARY ENDOGENIZATION (12)

- ▶ The contribution of the **social and solidarity economy** to employment and economic activity must become a matter of course for every government. Strengthening and adapting the systemic framework - legislative, financial and educational - could make social entrepreneurship more effective and inclusive. Similarly, it is important to facilitate all forms of social innovation that can help develop a local economy at the local level and promote the transition from the informal to the formal sector. To do this, it is necessary :
 - ❖ to define the status of the social enterprise, more particularly the micro-enterprise of a social and solidarity nature,
 - ❖ to teach the basic principles of entrepreneurship in school curricula and promote knowledge about the social and solidarity economy and its traditional forms (Touiza, Agoug, Khattara and Chard in Morocco for example),
 - ❖ to create local ecosystems in order to promote coordination between the various players in the sector, particularly public stakeholders, and to pool their resources and set up financial systems to support the creation of jobs and businesses, such as tontines, guarantee funds, microcredit, local savings, micro-business angels, etc
- ❖ to promote low-tech (agile, sustainable and resilient low-tech) not only because its availability promotes economic efficiency, but also because the restoration of ancient knowledge (e.g. Jaali for air conditioning) can save natural resources (see below).
- ▶ The third and most fragile pillar in this response to the socio-economic problems of countries battered by the COVID-19 crisis, in the context of this open indigenization, is **social protection**.
 - ❖ The scale of countries' indebtedness (see Focus n°13) is a time bomb that requires opting for a particularly efficient and resilient protection system: basic universal income, specific/conditional social benefits, "vouchers" (training vouchers, employment vouchers, food vouchers, etc.
 - ❖ The Care State cannot provide for everything, but it can facilitate solidarity and community empowerment, as in India or Brazil for example (347).

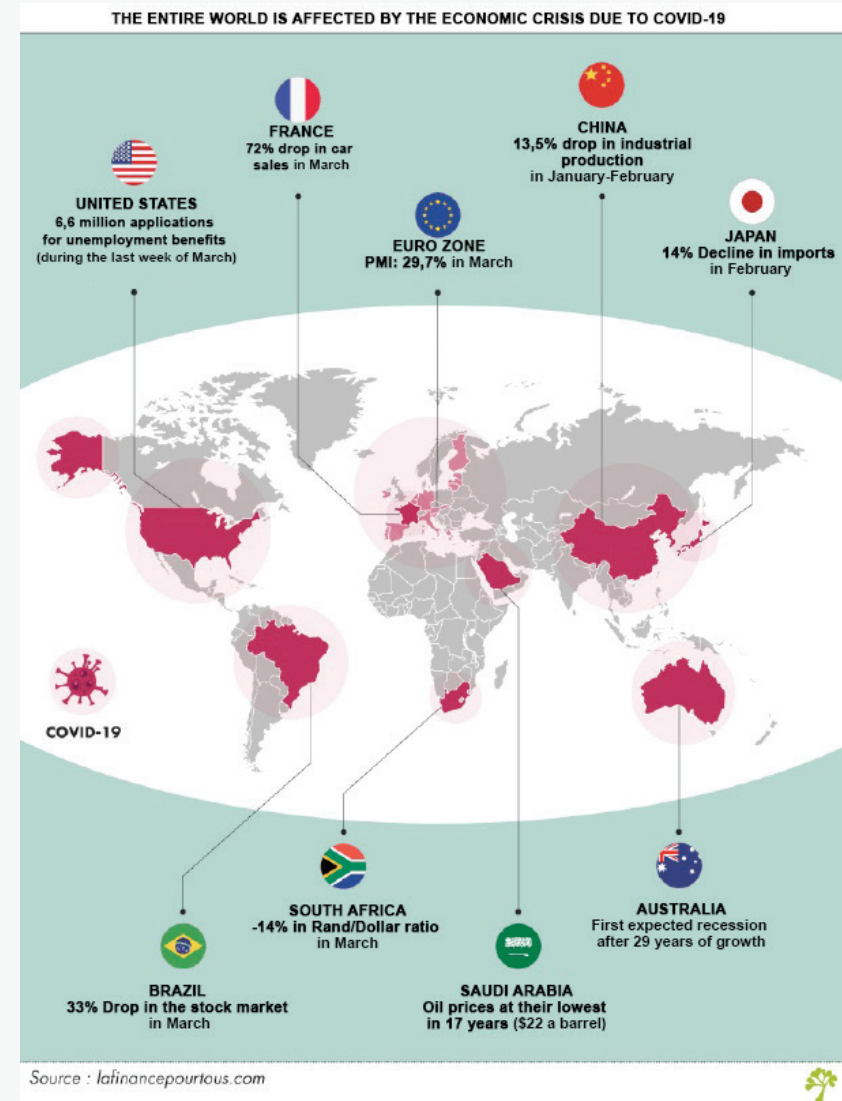
A NECESSARY ENDOGENIZATION (13)

Conclusion

- ▶ The COVID-19 crisis has revealed both the shortcomings of generalized globalization and the ever-present temptation of protectionism. The question of sovereignty should now be raised differently: it should involve both strategic autonomy and strong alliances.
- ▶ In this regard, a desire to chart an endogenous development path has emerged (particularly in Africa), not only to guard against the fragility of a global economic system that subcontracts most of the world's production of goods to a single country, but also to better meet the essential needs of the population (food, health, education, etc.).
- ▶ With 150 million people expected to fall below the extreme poverty line (World Bank 2020) by the end of 2021 (348), the time has come to consider the poorest as potential producers of wealth rather than as sub-human beings. Establishing the means for their empowerment requires a real structural shift, capable of changing the very nature of states and international relations.

K EEP IN MIND

- ▶ Emergence of a fourth development stage in the concept of the State: the Care State, whose strategic priorities are health, food, education, digitalization and employment.
- ▶ Building a new globality, based on :
 - ❖ slower global growth (slowbalisation), which would affect all countries due to global value chains,
 - ❖ regional integration, wherever possible,
 - ❖ and endogenous development, particularly in emerging and developing economies, so that they can reduce the impact of “slowbalization”.





| Chapter 2

CONTRIBUTING TO THE EXIT
FROM THE ANTHROPOCENE

A profound paradigm shift is at work. It concerns the place of humans on the planet, the relationship between people and their governments, and the dominant form of the economy.

Whatever the causes of this awareness, rarely has the demand for a “Great Ecological Transformation” (349) been so strong. For many people, coming out of the Anthropocene is no longer an option, but an absolute necessity.

If the *raison d'être* of the State remains the collective protection of its citizens, it must be admitted that the short-termism the State often shows with regard to the vital substratum that is the planet raises questions about its capacity to live up to that *raison d'être*.

This is why the advent of a more mature State, the Care State, and of a more locally supportive globality are two key factors for changing the era.

But to get where? What do we mean today by green growth? Is ecology still the beacon that should enlighten this perspective ?

At the same time, the magnitude of the risks ahead and the slowdown in growth leave us wondering what we can do. What Great Transformation will really be possible ?

Many answers to these questions and new proposals have been formulated in this sense in the three previous IRES strategic reports, in particular the one on a New Development Model. In order to avoid repetition, this last chapter will focus on avenues that have not yet been explored in detail: solutions that can be applied in Morocco as well as in sub-Saharan Africa, in Asia as well as in America, in order to ensure a true global, structural and systemic transformation.






Street'Art in the Mayan Jungle featuring portraits of tree planters in Mexico.
Courtesy : Hugo MAIRELLE

Source : <http://www.rfi.fr/afrique/20131129-archives-frontieres-africaines-Addis-Ababa>

Environmental issues : Situations already known in 2001, which have not improved since.

Table: Signals of the OECD Environmental Outlook

			
PRESSURES ON THE ENVIRONMENT	<ul style="list-style-type: none"> • Industrial point source pollution • Some air pollutants (lead, CFCs, CO, SO_x) 	<ul style="list-style-type: none"> • Water use • Toxic emissions from industry • Hazardous waste generation • Energy production and use 	<ul style="list-style-type: none"> • Agricultural pollution • Over-fishing • Greenhouse gas emissions • Motor vehicle and aviation air pollution emissions • Municipal waste generation
STATE OF THE ENVIRONMENT	<ul style="list-style-type: none"> • Forest coverage in OECD regions 	<ul style="list-style-type: none"> • Surface water quality • Forest quality in OECD regions • Ozone layer integrity 	<ul style="list-style-type: none"> • Biodiversity • Tropical forest coverage • Fish stocks • Groundwater quality • Urban air quality • Climate change • Chemicals in the environment
RESPONSES	<ul style="list-style-type: none"> • "Green" purchasing • "Green" agriculture • Protected areas • Resource efficiency • Energy efficiency 	<ul style="list-style-type: none"> • Biotechnology • Forest plantations • Aquaculture • Energy and transport technologies • Waste management 	

Source : <https://www.oecd.org/fr/env/indicateurs-modelisation-perspectives/syntheseunenouvellestrategiepourenvironnement.htm>

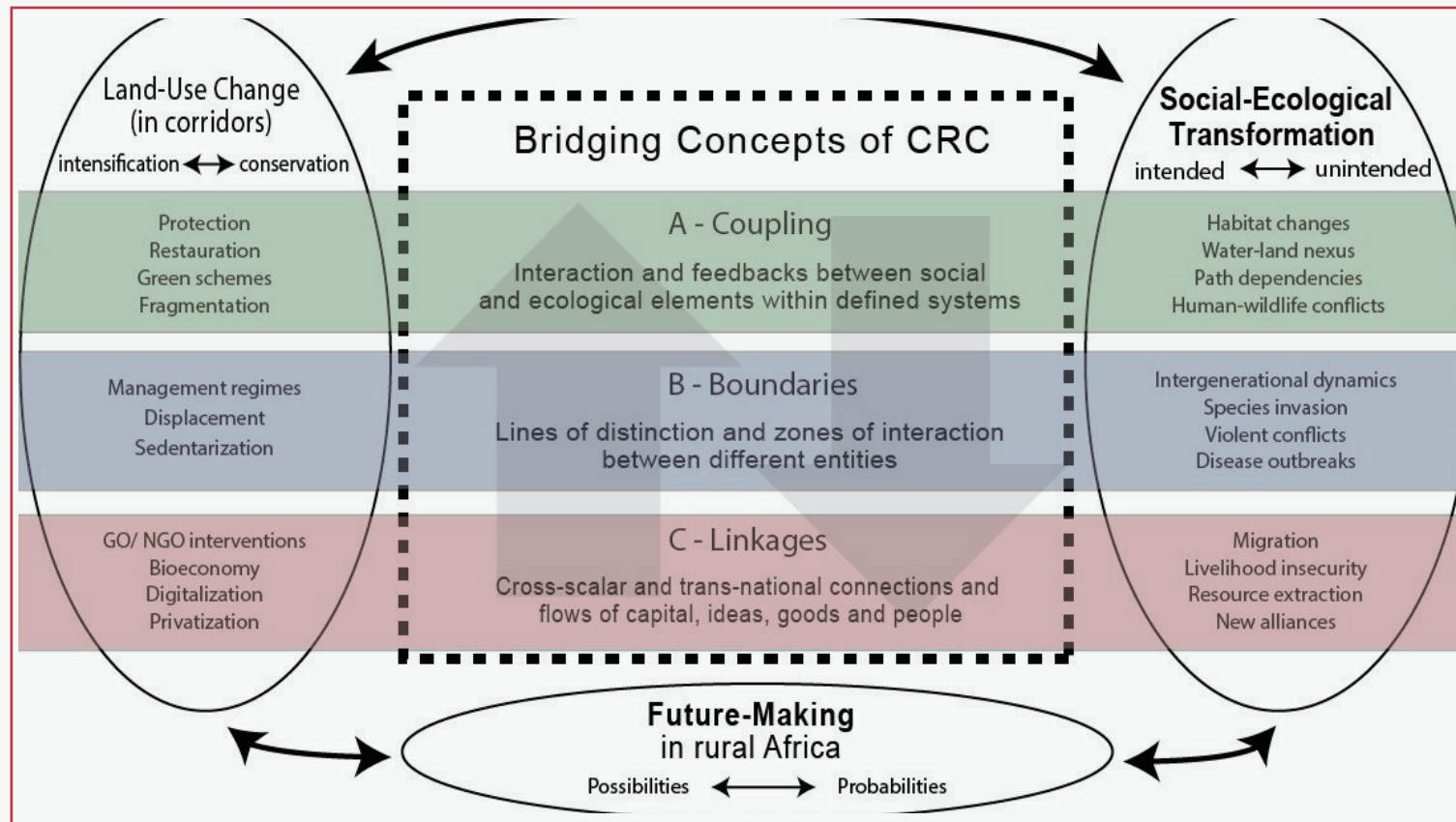
B EYOND THE “GREEN RECOVERY”

The term “Green Recovery” was widely adopted around the world in 2020 to refer to a set of environmental, regulatory and fiscal reforms aimed at restoring prosperity after the coronavirus pandemic (350). Still, how does this concept connect with that of ecology or sustainable development? What exactly are we talking about ?

Starting point: a double observation

- ▶ Four landmarks underpin this observation.
 - ❖ In 1962, Rachel CARSON’s book launched the ecology movement in the Western world.
 - ❖ In 1987, the BRUNDTLAND report “Our Common Future” defined the concept of sustainable development, which was to serve as the basis for the 1992 Earth Summit.
 - ❖ In 1995, the second report of the IPCC* paved the way for the adoption of the 1997 Kyoto Protocol on climate change.
 - ❖ In 2006, the STERN report on the economics of climate change raised governments’ awareness of the economic gravity of climate change.
- ▶ These different works expose a double observation characterizing the current world situation :
 - ❖ the **divorce between humans and nature** is leading to an accelerated degradation of natural ecosystems ;
 - ❖ the current **development model** (predatory) has become unsustainable, both socially and environmentally.
- ▶ Sustainable development is meant to be the ultimate response to the inevitable degradation of the biosphere caused by overpopulation and consumerism; it is presumably capable of preserving the environment, improving people’s daily lives and ensuring growth.
- ▶ Nevertheless, the short-term nature of government policies, despite the many alarm signals (collapse of biodiversity, rising sea levels, etc.) and the repeated warnings of the IPCC and other scientific bodies, has reinforced their **inertia**.
- ▶ Initially shaken by the STERN report (351), governments were willing to act, but they quickly came up against the often contradictory fragmentation of alternative ecological visions, and then they had to address the daunting task of tackling, on a daily basis, the urgency of the economic and financial crisis of 2008.

Three concepts (coupling, boundaries, and linkages) to facilitate cooperation between the natural and social sciences in the framework of socio-ecological transformation



Conceptual Framework of the Future Rural Africa Collaborative Research Center, Beyond the “Green Recovery”

Source : <https://www.crc228.de/project-design/>

B EYOND THE “GREEN RECOVERY” (2)

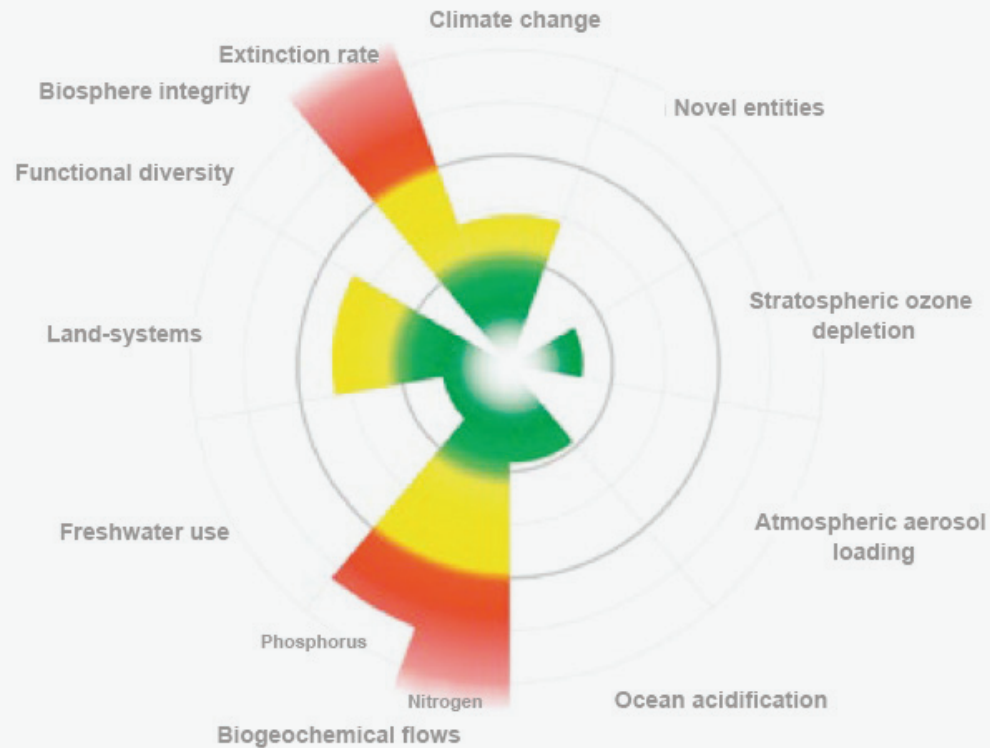
Evolution of the ecology concept

- ▶ The fact that environmental action has remained marginal over the past six decades is also due to a lack of understanding concerning that concept. Because it is not unified and taught from primary school onwards, environmental thinking is a casualty of its insufficient structuring, and even of its political instrumentation.
 - ❖ **Ecology is a multidisciplinary scientific approach** that studies (logos) the interactions of living beings between themselves and with their environment (ecosystem). The ecologist is a specialist in that subject.
 - ❖ **Ecologism** or environmentalism is a current of thought that advocates respect for the environment and the need to protect it from human activity, or even to restore its balance. It has given rise to the misnomer of “political ecology” (“Green” parties).
 - ❖ **Ecologists** are activists who have often been associated, since the 1960s, with a left-wing ideological current, devoting more energy to opposing capitalism (eco-socialism) than to finding ways to work together to promote effective environmental action.

- ▶ Whatever their names, the different currents of thought that are interested in the disruption of environmental balances agree on a minimum of **basic principles**: the preservation of endangered species, the restoration of ecosystemic balances, the reasoned and, if possible, bio-mimetic exploitation of Nature and, finally, respect of the living.
- ▶ However, the vision of the world at the heart of this ecological approach has grown progressively more complex. During the 20th century, it went from a purely Malthusian approach (352) to the traditional Nature-culture opposition (nature is good, culture is bad). Since the beginning of the 21st century, Nature and culture are considered to be much more intertwined, which makes the previous distinction obsolete (353).

If humans are no longer fundamentally against Nature, it is because the enemy is elsewhere. Hence the extension of ecologism to the idea that the survival of the planet and of humanity is in fact threatened by... a specific category of humans: the actors of the Anthropocene (multinationals, governments, ...)

Planetary physiology: the limits of 9 vital systems



The diagram by W. Steffen and colleagues, published in Science in 2015, summarizes where we stand with regard to crossing planetary boundaries.

Source : <https://www.fondation-nicolas-hulot.org/9-grands-equilibres-conditionnent-notre-vie-sur-terre-quels-sont-ils-comment-les-preserver/>

B EYOND THE "GREEN RECOVERY" (3)

Post-ecologism

- ▶ Thus, the ecological struggle now goes beyond the environmental field: a **new** Gaian (354), **planetary vision** is emerging, which sees the Earth as a single interconnected and self-organizing biosystem, whose planetary limits - which are prerequisites for human survival - are approaching ever more rapidly (see opposite).
- ▶ The planet and the human beings who are suffering from the Earth's degradation now constitute the same cause to be defended. The designated enemies, at the source of climate change as well as of growing inequalities, are those who exploit and pollute the environment, and they are to be found among producers as well as consumers.
 - ❖ From now on, the struggle will oppose the **innocent to the guilty**, the advocates of another development system to neoliberal and capitalist hyper-globalization.
 - ❖ The **green recovery** promoted today is at stake in this confrontation: will it only lead to decarbonization or will it provide an opportunity for a thorough reform of our ways of life and production ?
- ▶ This extended version of environmentalism is based on the emerging paradigm that has become clearer during the COVID crisis-19 :
 - ❖ The planet is a vast inter-connected (Gaia-like) living web, of which the human species is but a thread (hence the concept of planetary health* (355)).
 - The human species can no longer consider itself or behave as the dominant species: because it has changed the planet, it can no longer claim that right (if it ever existed).
 - Respect of the living - in all its forms - must be imposed (antispeciesism).
 - ❖ The development model based on a predatory economy and an inefficient redistribution system must come to an end. It is time to invent a new model - one that respects the main environmental balances and is capable of anticipating and reducing risks for the entire planet.
- ▶ The current crisis constitutes a unique opportunity to move forward with this great transformation because, on the one hand, the urgency of the climate situation requires that and public opinion seems ready for it and, on the other, because the debt induced by the stimulus plans is of such magnitude that the possibility of experiencing it again, with the same intensity that would call for such a transformation, seems very remote.

T

HE GREAT TRANSFORMATION

Thus the “green recovery” theme - which has been used by many countries to characterize their recovery plans (Canada, Chile, the United States, the European Union, India, Nigeria, New Zealand, etc.) and which is supported by the United Nations, the OECD, the IMF, etc (356) now goes far beyond the mere environmental dimension. It is about restoring prosperity after the pandemic, thanks to a new socio-economic model that is climate neutral, resilient, sustainable and inclusive. This is embodied in a set of reforms, which are environmental, of course, but also social and economic (micro and macroeconomic).

Stimulus packages which only aim to return to normalcy, which protect companies and practices from another age and which only benefit large firms attracted by the windfall potential, would stand no chance of achieving this model.

For this great transformation to really happen, and not just another *greenwashing** exercise, it is necessary to put in place the conditions for its success, in a logic of **transforming a structurally unstable system to prepare it for future shocks while maintaining its new course.**

The first of these conditions is none other than the reform of the global financial system.

COVID-19 is a wake-up call to the global community.

The global health and financial architecture must be strengthened, and in parts redesigned, to enhance our preparedness and capacity to act with speed and at scale to fight future crises. We should send a message of hope for the future: that the UN, G20 governments, and all interested partners can turn this crisis into an opportunity to build a new and more effective multilateralism, which more appropriately reflects current economic and political realities and is better equipped to address the challenges of the twenty-first century (357).

Reforming the global financial and monetary system (358)

- ▶ Achieving a systemic transformation of this magnitude, on a global scale, requires huge investments, comparable to those raised to **prepare for war**, both on a national and global scale. No conventional financial strategy is capable of rapidly mobilizing the enormous sums at stake. Some states may resort to such radical measures as **repatriating offshore capital** both to manage its flow and to prevent multinational companies from evading taxes on locally generated income (359).
 - ▶ It requires a **rethinking of the financial system** so as to bring it back to what it should never have ceased to be: the servant, not the master, of the global economy. This would make it possible to :
 - ❖ overcome the fundamental conflict (political, economic and social) between the banks and the owners of financial assets, on the one hand, and the rest of the world (360), on the other, thus promoting economic recovery from the bottom up,
 - ❖ establish a green development banking system; limit interest rates in the post-crisis world so that they do not surpass the capacity of the planet or the economy to renew itself.
- ❖ establish a more democratic supervision of the international financial system, for example by transferring the governance of the stock markets to states with a democratically legitimized public authority (as President Roosevelt did in 1933) ;
- ❖ generalize institutional innovations such as proximity investment and tontine systems (which only Islamic finance provides today).
- ▶ In order to stabilize this new system, one of the solutions would be to establish a “**synthetic hegemonic currency***” - a digital currency guaranteed by a network of central banks - that could replace the dollar (or alternative currencies, such as the yuan or the euro) as the world's reserve currency. By leveraging the exchange function of a reserve currency, such a currency could facilitate the transition that the global financial and monetary system needs (361).
- ▶ The **national consequences** of these changes should be the overhaul of the public administrative apparatus and the fiscal and budgetary transformations needed to bring the deadline for a return to budgetary balance closer, since the health crisis has triggered a process of indebtedness that will not be sustainable for all states.

Renewed cooperation on a global scale

- ▶ Since public investment is not enough, **incentives should be created for green private sector investment**, such as :
 - ❖ requiring companies to disclose their climate risk vulnerabilities (362),
 - ❖ the promotion of long-term thinking in order to discourage the short-termism of decision-makers: long-term investors would thus have a say through loyalty shares,
 - ❖ setting of a substantial global price for carbon (40 euros per ton in the European Union in 2020, from less than 1 euro to 7.5 euros per ton in China in 2019 (363)),
 - ❖ a global ban on the production and use of dirty energy.
- ▶ However, for these incentives to have a real impact, they must be imposed on a global scale to avoid competition-induced distortions. Diplomatic discussions in silos must therefore give way to broader discussions that include all participants in global public interest (364).
- ▶ In addition to setting new climate-based accounting criteria and standards (sustainable finance), the international community will have to provide assistance to developing countries, which have been hard hit by the pandemic.
 - ❖ **Debt-for-nature** swaps (debt forgiveness in exchange for investment in the protection of nature) could encourage developing countries to invest in a more sustainable model.
 - ❖ **Global actions**, driven by states, possibly coupled with Marshall Plans, could be carried out for the benefit of supra-state regions, thus contributing to their integration.
- ▶ Multilateralism, which is currently failing, could be rebuilt thanks to two new sources of strength :
 - ❖ a **guiding principle** based on commonalities between the various national recovery plans. This approach based on shared vision and commitment seems more inclusive and promising than the arbitration of trade wars that has prevailed until now ;
 - ❖ **“exponential” leader** (365) who are able to combine the reconstruction of the geopolitical and macroeconomic system with a quest for meaning. Making room for this new generation, which is more anticipatory, more at ease with technology and profoundly humanistic, is the challenge for political parties as well as for institutional technocracy.

Box 8 : The importance of an appropriate global response to the health crisis

La pandémie de la Covid-19, tout comme les crises climatique et de biodiversité, est un exemple clair d'un problème mondial qui appelle une solution mondiale.

However, cooperation will be possible only if there is agreement on the need to reboot the current development model.

Growth based mostly on the intensive exploitation of natural resources is no longer sustainable.

Laurence TUBIANA,
President
of the European Climate Foundation

A new “Renaissance”

- ▶ The great transformation can only be radical. It must break with old patterns: any attempt at a merely incremental approach seems doomed to failure, given the power of the conservative trend and the urgency of the situation.
- ▶ The current recovery plans, which take better account of the environment, are nevertheless likely to be insufficient if they do not contribute very quickly to **reducing the social inequalities** that constitute a real time bomb, starting with the equitable distribution of vaccines against COVID-19, which, by the end of February 2021, had already caused more than 2.5 million deaths (366).
- ▶ The **scale of the mobilization** needed must therefore concern everyone. It is similar to the systemic transformation movement that, for example, led Europe from the Middle Ages to the Renaissance: among the multiple enablers of this change, the generalization of education and the circulation of ideas thanks to the printing press played a crucial part.

- ▶ That is why it is necessary to thoroughly rethink and transform education and the media.
 - ❖ The changes to be made in the education system were detailed in the previous chapter.
 - ❖ The afore-mentioned information governance must be coupled with a **genuine communication strategy** (educational system, social media, institutional media, cultural industry) to raise awareness, in a factual manner, of both the current challenges (climate change, degradation of the planet and of living organisms) and the **solutions** that are already emerging in the world, in order to arouse interest and show that “this is possible”, both financially and technically.
- ▶ **Sharing** this vision of the future is essential to bring about the paradigm shift necessary for this great transformation to take place. Humanity has done this many times before in its history, but never before in the short time we have left to make major changes. The acceleration of climate change and the loss of biodiversity, which have been observed in recent years (IPCC, IPBES), have significantly narrowed the window of opportunity.

The transformation tools

A change of eras also means a change of tools - both conceptual and practical ones. Three of these tools are essential.

- ▶ Bracing for future threats.
 - ❖ **Anticipating risks** makes it possible to identify which ones are moving from being potential to being real. In the case of climate change or cybersecurity, for example, most risks are already clearly identified threats.
 - ❖ When **preparedness** for these risks exists, it rarely takes into account the potential magnitude of the damage, or even their systemic impacts. Hence the need to act differently, in particular by coordinating and pooling resources (see health policy), by decentralizing means and by imagining alternatives rather than creating redundancies.
- ▶ The implementation of measures designed to ensure the **resilience of survival systems** completes this threefold approach, by acting, for example, at the level of income (thanks to a universal basic income paid without intermediaries), food (local food self-sufficiency), communication (drones, Loon balloons), etc

T HE GREAT TRANSFORMATION (6)

▶ Develop a culture and practice of hybridization and innovation.

- ❖ Hybridization here means creating a **more effective solution** from two distinct, often opposing components. For example, ecotourism is the result of hybridization of tourism and respect for the environment; the smartphone is obtained by hybridizing artificial intelligence and telecommunication; hybridization of low-tech and high-tech leads to the solar-powered web server...
- ❖ Hybridization is **one of the major keys to innovation**. Technological hybridization, as shown by wild tech, brings together new ways of assembling (types of technology and materials used, creative processes, uses) (367). Social hybridization, like the small phone repair stores: between fablab (repair) and second chance school (user training).
- ❖ It is therefore about helping innovation to permeate the whole of society, from national education to the financial system, so that the **experimentalist** is first recognized as an entrepreneur, a creator of economic, social or technological wealth, which must respect the environment.

▶ Opening up science and putting it back at the heart of cognitive and informational approaches.

- ❖ Like everything else, science has its limits: closed epistemic communities, elitist communication and evaluation systems, sometimes aggressive conformism...
- ❖ In the face of these excesses, it is necessary to rethink the career system of researchers, the financing and evaluation of their work, as well as their mode of publication, which deprives the greatest number of people of access to it, and to break down the silos that confine scientific thought, by promoting multi- and trans-disciplinarity.
- ❖ The scientific, factual and objective approach, the rigor of information and direct knowledge (participatory science) can restore the **confidence** of citizens and decision-makers in science, which is too often discredited by its controversies.
- ❖ The pace of progress requires that the debate between **research and practice** be reopened, both in universities (pedagogy versus research) and in medicine (translational medicine). For example, the knowledge of indigenous peoples could make an important contribution to environmental protection (368).

A VENUES FOR ACTION

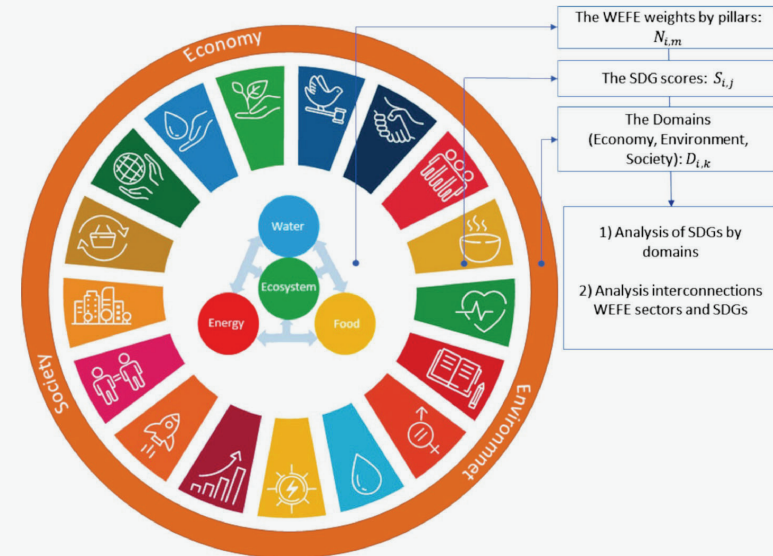
Since April 2020, never have so many proposals for action been made over such a short period of time. Some of those proposals were meant to be buried in the drawers, while creativity - which was spurred on by the urgency of the situation - has led to other proposals. This last section does not aim to draw up a complete list of those proposals.

Each year, the IRES strategic reports outline new avenues for solutions in a wide range of fields, most of which could be included here. Many proposals have already been made in the first two parts of this report.

This last part will therefore be devoted to four major courses of action, relating to the life economy and to three major nexuses.

A **nexus** is not just a complex set of interdependent elements. It also involves a systemic approach that combines management and governance in a cross-sectoral, coherent and integrated perspective that goes beyond traditional divisions (369). It thus contributes both to sustainable development and to worldwide commitments to global development (Sustainable Development Goals).

Analytical Framework for Assessing the Interconnections between the Sustainable Development Goals and the WEFE Nexus (Water, Energy, Food, and Ecosystem)



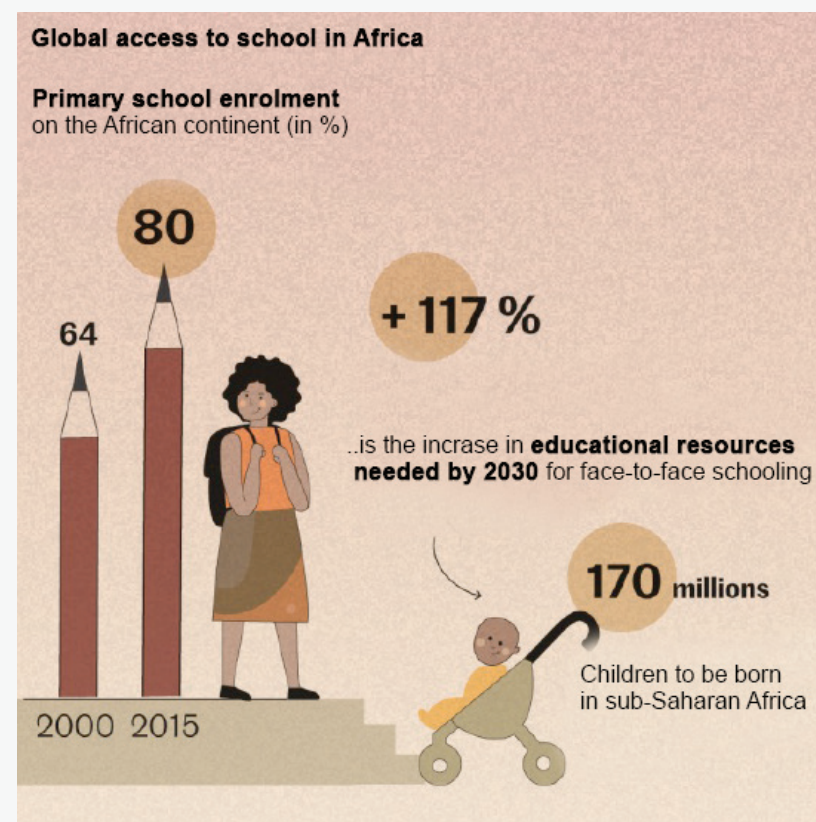
Malago, S. Comero, F. Bouraoui, C. Melek
Kazezyilmaz-Alhan, B. Manfred Gawlik, P. Easton and C. Laspidou 2020

AVENUES FOR ACTION (2)

For the advent of a different economy

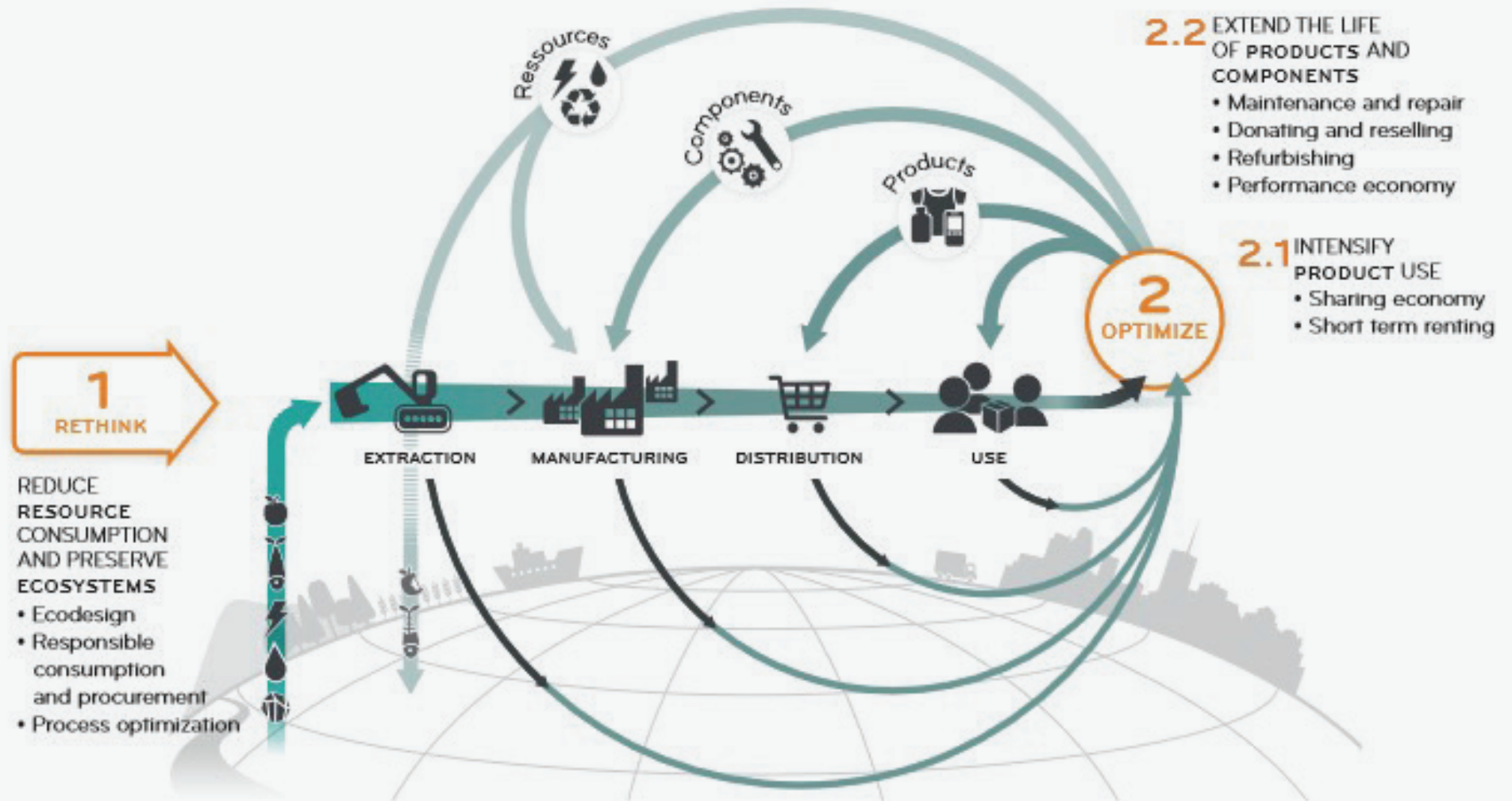
The global search for a new development model which can overcome the limitations of neo-liberalism requires a rethinking not only of the financial and global system, but also of the very foundations of the current economy. A kaleidoscopic vision of what this new economy could become is beginning to emerge: an economy of life, positive, blue, proximity-based... an economy capable of truly putting in place a sustainable, more human development.

- ▶ During the coronavirus pandemic and more particularly during the Great Lockdown, the “invisible” jobs (which are little talked about and relatively poorly paid) suddenly came to the forefront: caregivers, garbage collectors, security personnel... all those who continued to carry out their mission by exposing themselves to the virus while the others were locked up in order to be protected.
- ▶ This awareness has given rise to the concept of the **life economy**, which includes all the sectors whose crucial importance is observed on a daily basis: health, waste management, water distribution, food, agriculture, education, culture and sport, and “support” activities (breakdown services, digital infrastructure, insurance, etc) (370).



Source : https://www.lemonde.fr/afrique/article/2020/12/08/l-ecole-avant-l-ecole-levier-du-changement-au-maroc_6062653_3212.html

CIRCULAR ECONOMY



Source : <https://www.recyc-quebec.gouv.qc.ca/entreprises-organismes/mieux-gerer/economie-circulaire>

A

VENUES FOR ACTION (3)

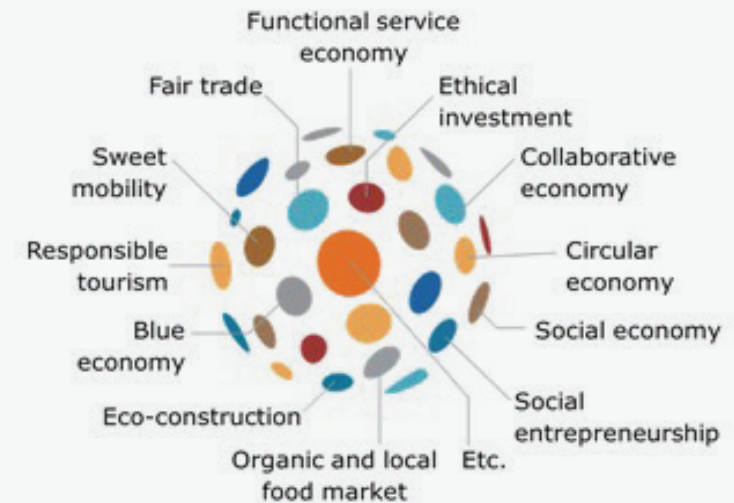
- ▶ It seems necessary today to pay more attention to these sectors. This is not only because such professions deserve credit that public policies have not really given them so far (working conditions, training, social status), but also because they are the **most resilient jobs** in the event of a crisis: the ones that are immediately needed the most. It is therefore essential to be able to modernize them and help them develop so as to reinforce their resilience and make them agents of change - through training and in practice - for the achievement of more sustainable development.
 - ❖ Depending on the country, these sectors, which constitute our life-support system, account for between 40 and 70% of GDP and employment (370). Households should be able to spend a bigger part of their budget on health care, food, and learning: this is as much a personal benefit as a collective and generational one - and it is an important one in a **global prevention policy**.
 - ❖ In the aftermath of the pandemic, many companies will have to refocus their activities, since their pre-COVID markets have shrunk, or have relocated or been automated. Through loans, public contracts or innovation financing, a **shift** towards these “life support” sectors should be encouraged”.
- ❖ The issue of product **life cycle management** is cross-cutting for most of these activities: the collection of used products, the transformation or repair, the distribution or recycling, the final clean destruction... are various elements of a chain that is still human capital-intensive and that needs to be established everywhere.
- ▶ Thus the objective of this life-based economy is, first and foremost, to enable everyone to live better - by working and by meeting a little more than their basic needs - in a healthier, sustainable way (long-term balance).
- ▶ This approach is close to that of the **positive economy**, which describes all economic acts that contribute, in a direct and tangible way, to improving society (human conditions, collective well-being) and that make a significant sustainable contribution, - socially, ecologically and democratically - to tackling the main societal challenges (371).
- ❖ The positive economy requires action at all levels, from government authorities to civil society, from companies to local authorities, and in all countries, because national measures do not suffice in a globalized economy.

A VENUES FOR ACTION (4)

- ❖ The Positive Economy Forum harnesses the **collective intelligence** of international stakeholders who put the interests of future generations at the heart of their reflections and actions, to develop concrete, sustainable solutions (372).
- ❖ Because it is possible to develop a vision in which economic operators have obligations other than maximizing profit, **social entrepreneurs** are at the center of this social and solidarity economy (373).
- ❖ Like green bonds, **social bonds** - whose funds are intended to finance projects working for the common good - are a privileged tool for meeting financing needs (already +364% in the first half of 2020 (374)).
- ❖ Finally, the development of **resilient infrastructure** in the areas of health, education (see On the move 9) and clean energy is considered the key to a positive exit from the coronavirus crisis (375).

Since 2013, a **positivity index** has been used to assess the environmental, social, economic and governance performance of companies and territories in OECD countries. In 2020, a call was launched for the creation of a specific positivity index for emerging countries, to be taken into account by rating agencies (376).

Positive economy fields



Source : asbl POSECO

A VENUES FOR ACTION (5)

► These two concepts, the life economy and the positive economy, are reminiscent of the **Blue Economy** approach developed by Gunter Pauli (377), which is based on the following principles :

- ❖ Meet the **basic needs** of populations to ensure a good quality of life.
- ❖ Give more value to local potential and to **local production and consumption systems** in order to produce at reasonable cost what is best for people's health and for the environment.
- ❖ Observe natural phenomena, understand how they work and imitate them in order to learn how to better cultivate, produce and consume (**biomimetics**).
- ❖ Create without waste and with a low energy cost, generate local jobs and - over and above preservation or conservation - **regenerate** rather than recycle.

Figure 66 : The blue economy in the world in 2020



The lack of participation from the MENA region is noteworthy. The different dots (clusters 101 to 110) indicate the nature of the connection to the Blue Economy (blue: business; green: science; yellow: foundations, orange: projects) See: <https://www.theblueeconomy.org>

Source : <https://www.theblueeconomy.org/map.htm>



The Blue Economy in Morocco

Towards sustainability in the fisheries sector

- ▶ With 3,500 km of coastline along the Mediterranean Sea and the Atlantic Ocean, the maritime economy cannot but constitute a major pillar of the new Moroccan development model (378).
 - ❖ The fishing sector accounts for 2.5% of the national GDP.
 - ❖ It generates 115,605 direct jobs at sea and 93,736 jobs on land, as well as 500,000 indirect jobs.
 - ❖ The Kingdom is the leading producer of fish in Africa. It is ranked 17th in the world.
- ▶ Since 2010, the *Halieutis* Plan, a strategy for the modernization and development of maritime fishing, has integrated the sustainable management of the sector and the conservation of marine ecosystems.
 - ❖ This strategy is based on the work of the National Institute of Fisheries Research, a monitoring and scientific production tool.
 - ❖ It has resulted in a significant increase in the added value of fisheries production (28% in volume and 75% in value) which has resulted in a doubling of exports over the 2010-2020 period (379).

- ▶ This blue economy development plan (employment, growth, food security) comes on top of a number of existing tools :
 - ❖ both domestic: national strategy for sustainable development, law on the coastline, sectoral strategy for fisheries,
 - ❖ and in the framework of international cooperation: Blue Belt initiative, a collaborative platform of innovative actions and solutions launched by Morocco in 2016 (sustainable fisheries and aquaculture, fight against ocean warming, integrated coastal observation systems ...)
- ▶ However, this requires enhanced governance to achieve the preservation of the marine environment and its sustainable, inclusive use. Only a higher level of leadership would provide the necessary coordination and arbitration functions (379).



The Blue Economy in Morocco (2)

Blue Sahara project

- ▶ In the Speech He delivered on 7 November 2020, on the occasion of the 45th anniversary of the Green March, His Majesty King Mohammed VI announced that “the Atlantic coast to the south of the Kingdom, bordering the Moroccan Sahara, will serve as an area for the achievement of economic complementarity as well as continental and international prominence”.
- ▶ The objectives of this major blue economy project are as follows :
 - ❖ Development of a maritime economy that will support the major infrastructure projects undertaken in recent years in the region.
 - ❖ Construction of a new port in Ntireft (Dakhla), for an overall investment of MAD10 billion (approximately 1€ billion).
 - ❖ Investment in seawater desalination and in renewable energy (wind and water*).
 - ❖ The reactivation of the Azur Plan, by giving it fresh momentum through the creation of two seaside resorts, one in “Guelmim Plage blanche” and one in “Dakhla”.

Possible solutions to better manage the ocean and maritime spaces

Among the possible courses of action identified during the scientific day held at the Royal Institute for Strategic Studies in February 2020 is the following :

- ▶ Improve national maritime governance :
 - ❖ Set up an interministerial institution in charge of maritime affairs.
 - ❖ Bring the legal system in line with international conventions.
 - ❖ Develop an integrated maritime strategy, including a section dedicated to South-South cooperation.
- ▶ Create an agency, a center of excellence or an observatory, dedicated to national oceanographic research and the development of a detailed maritime map.
- ▶ Ensure the development of the heritage through the creation of a national museum, the elaboration of an atlas of Moroccan history through the coastline, as well as educational actions, popularization and awareness-raising activities among young people and teachers regarding the question of the oceans (ocean literacy).
- ▶ Enhance African and international cooperation in the maritime field to face common challenges, such as the risks of natural disasters or illicit trafficking at sea.
- ▶ Consolidate strategies and actions for climate change adaptation and mitigation through the establishment of risk warning systems.

A VENUES FOR ACTION (6)

- ▶ The development and promotion of the local economy completes this kaleidoscope. A more sustainable economy is much quicker to establish at the local level than at the national level, where inertia is greater. Depending on the potential of each region, this development can be focused on the following :
 - ❖ The **circular economy**, which can quickly satisfy three emerging needs :
 - the need to have an income for those who sell second-hand objects or industrially recycle used products,
 - the need to make sure that the poorest people have access to consumption, making it possible for them to buy inexpensive products,
 - the strong demand to end the Anthropocene and to better manage resources (ecology).
 - ❖ This requires the organization of **recycling** through the promotion of public-private partnerships and social and solidarity economy; ensuring its promotion as an alternative to consumerist culture and promoting these professions; and imposing a minimum of safety standards - to make sure recycled products are safe - without hampering creativity.
- ❖ **Short circuits** and local distribution reduce costs (transportation, conservation, intermediaries) and losses (theft, storage); the savings generated can be reinvested in labor for transportation and local sales. Local production also reduces or spreads the risk of food shortages; agricultural products will be more nutritious if they are harvested at optimum maturity.
- ❖ **Local financial systems**, such as local savings (invested locally), community tontines, micro-credit and crowdfunding, are all the more feasible as investors better understand the local context of the person seeking financing and can better assess the need that this offer meets.
- ❖ The **cultural economy** (in the broadest sense of the phrase) includes artistic creation, live performances, events, local tourism, folklore, maintenance and development of heritage, recreational and leisure activities and the gaming industry, especially video games. This economy is one of the major pillars of local development because it is rooted in the territory. However, it will have to transform itself very quickly to survive in the post-COVID world because of the lack of financial resources (recession), the accelerated digitalization of the sector and the possibility that international tourism will not return to its 2019 level any time soon.

A VENUES FOR ACTION (7)

In short

- ▶ Thus, a new post-COVID economy needs to emerge due to the strong demand by the world's inhabitants to put an end to inequalities and restore the environment, in short, to get out of the Anthropocene. See survey findings..?
 - ▶ It draws on the diverse contributions of the life economy, the positive economy, the Blue Economy and all the concepts, methods and practices that ecological and alternative currents have been able to develop over the last twenty years: from permaculture to local exchange systems, from recycling to regeneration, from veganism* to antispeciesism*, from enoughism* to hybridization (liquid persons)...
 - ▶ If this economy looks today as a “do-it-yourself” approach, this is because it is in the process of reinventing its fundamentals. It has the ambition to free itself from neo-liberalism, as shown by the emergence of a new debt policy (see Focus n°13), the return of the State, especially the social State, and the demand for a revaluation of work. As state capitalism or regenerative capitalism, its foundations must be ethical (380).
- ▶ This cosmopolitan landscape, broader than sustainable development alone, encompasses the following objectives :
 - ❖ **Changing the lives of the invisible** and promoting the social and solidarity economy and social bonds to finance it. In this respect, the Triple Bottom Line* (People, Planet, Profits) is enriched with another “P”: Purpose.
 - ❖ Adding a fourth pillar to sustainable development: the **democratic pillar** (positivity index), a necessary counterbalance to the authoritarian tendencies reinforced by the great containment.
 - ❖ Insisting on the **long term**: taking into account the interests of future generations, anticipating and preventing risks
 - ❖ Ensuring the **well-being** and **quality of life** of human beings **while regenerating** the natural capital, i.e. the capacity of the environment to provide, in a healthy and natural way, its resources (energy, raw materials, food) and its ecosystem services (carbon storage, waste recycling, water treatment, ...).
 - ❖ Considering human beings as **one part of a global ecosystem** rather than putting them at the center of everything. Life-centered design should thus become the new norm (381).

Figure 67 : Should your government make environment protection a priority in recovery from COVID-19 ?

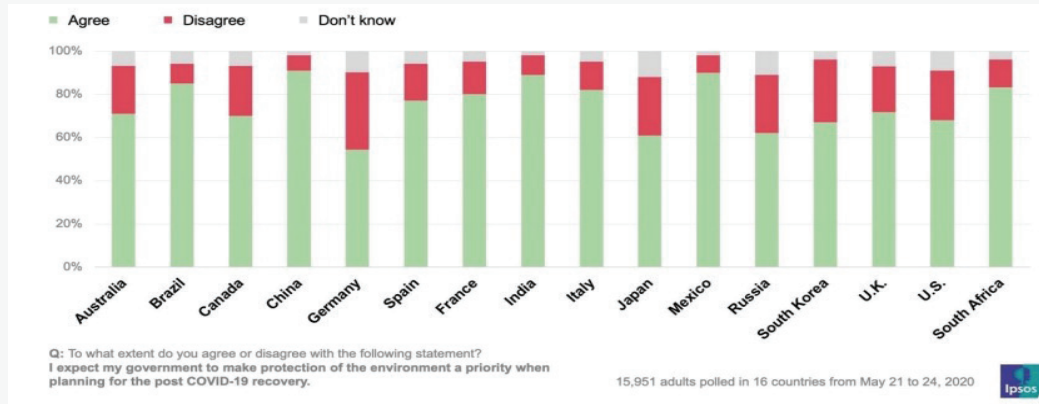
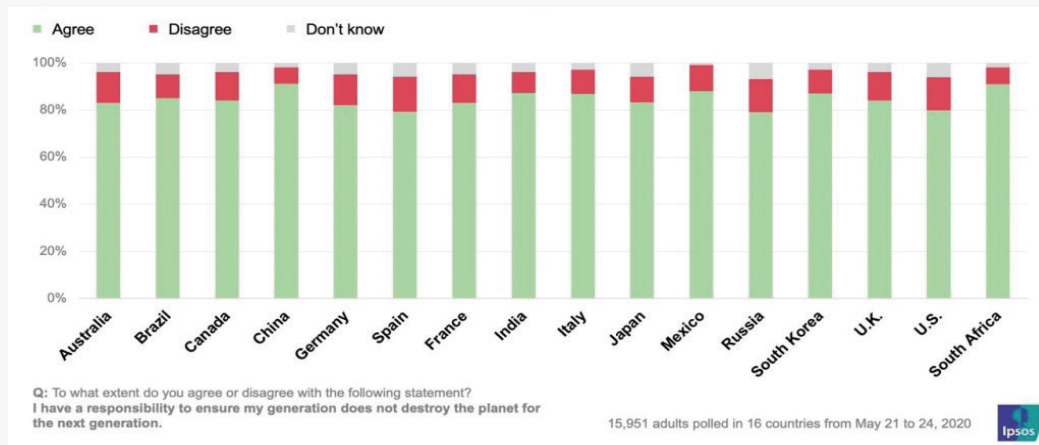


Figure 68 : Do you think have a responsibility ti ensure your generation does not destroy the planet ?



Source : <https://www.ipsos.com/en/majority-people-expect-government-make-environment-priority-post-covid-19-recovery>

A global survey was conducted by Ipsos on the occasion of World Environment Day. It polled 16,000 people from May 21-24, 2020 in 16 countries (383).

3 out of 4 people in those countries expect their government to make environmental protection a priority in post-pandemic recovery planning. The highest favorable response scores come from emerging countries (China, India, Mexico, Brazil and South Africa).

More than 4 out of 5 people say that pollution, degradation of nature, deforestation, overfishing and climate change are serious threats to their health.

80% of them feel they have a responsibility to make sure that their generation does not destroy the planet.

A VENUES FOR ACTION (8)

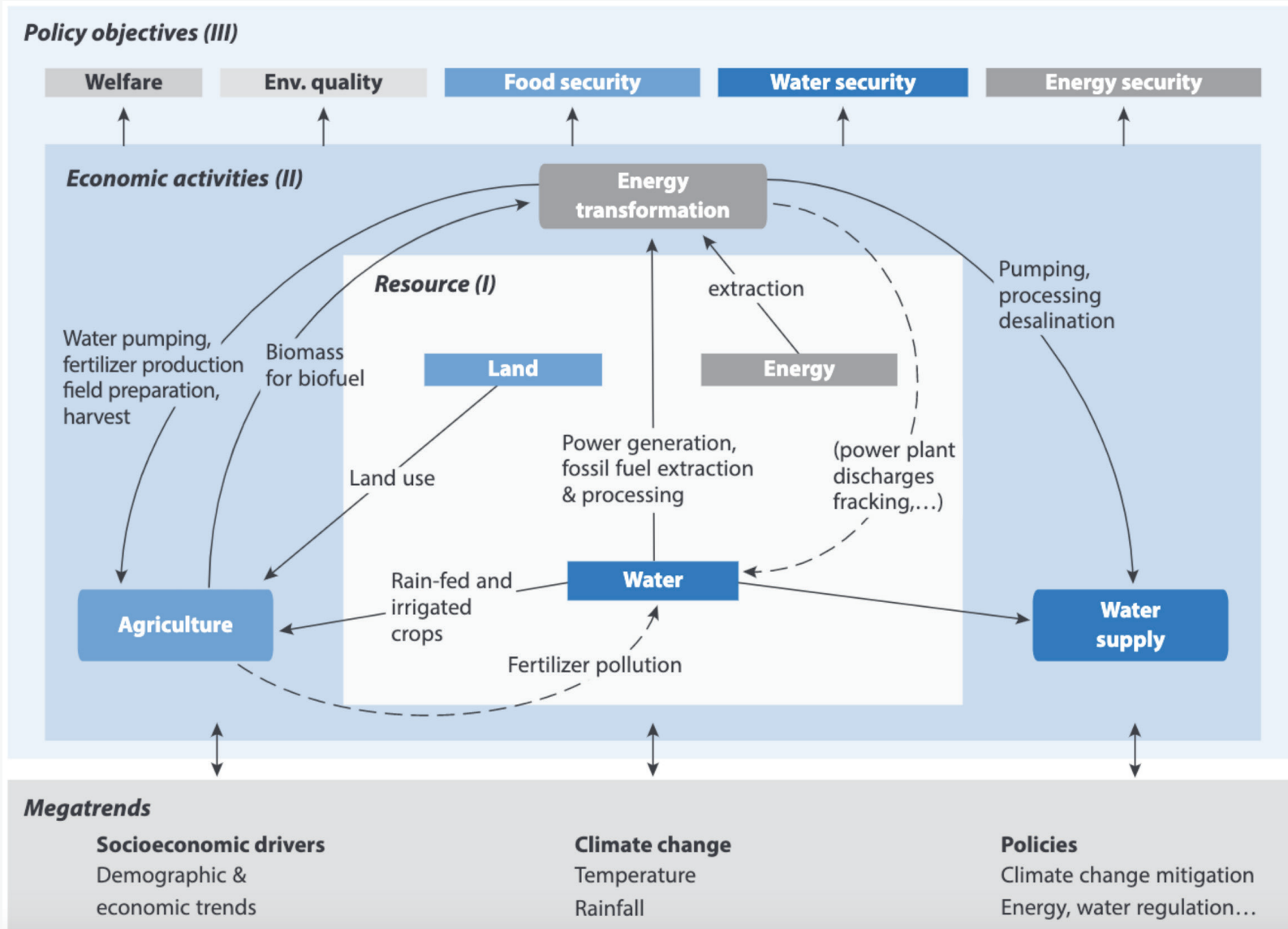
The nexus approach

- ▶ Because everything affects something else and complexity increases as a result of this interdependence, it is necessary to develop a systemic mindset in order to deal with today's issues - economic, environmental, societal and human - in a synergetic manner.
- ▶ Three nexuses illustrate this approach and show that change is possible :
 - ❖ the Water-Energy-Food Nexus, better known by the acronym Water-Energy-Food (WEF),
 - ❖ the City-Mobility-Ecological Footprint Nexus,
 - ❖ the Tourism-Environment-Employment Nexus (TEE).
- ▶ While it is not possible to resolve these interrelated issues, the following courses of action (see Focus n°18, 19, 20 and 21) propose or emphasize a number of integrated innovations that promote the transition to a more sustainable world.
- ▶ This is inspired by the **nexus approach**: efficient use of resources, greater policy coherence, reduction of negative externalities, securing fundamental human rights (HDI), concerted decision-making, interdisciplinarity, cooperation, transparency (383). Biomimetics and the principle of doing “with” Nature rather than “against” it are at the heart of this approach (384).



Source : OCDE (2018), The Productivity-Inclusiveness Nexus, Editions OCDE, Paris, <https://doi.org/10.1787/9789264292932-en>.

The main interactions within the Earth-Water-Energy Nexus



Source : https://read.oecd-ilibrary.org/environment/the-land-water-energy-nexus_9789264279360-en#page24

The Water-Energy-Food Nexus at the global level

Situation

Water is at the heart of this nexus: human beings need it for their domestic needs, for energy production and for their food (agriculture and food industry). (see Data n°9)

Food production: climate change (droughts, floods), urbanization, desertification (associated with the disappearance of plant cover) and mining activities contribute to the reduction of arable land, which reinforces agricultural intensification. This, in turn, has negative impacts on water extraction (69% for agriculture) and on water quality, its filtration process and its runoff (as does soil artificialization).

The development of mankind also requires the **production of energy**, whether it is for food production (agricultural mechanization, fertilizer production, food processing, irrigation, transportation) or for the production and use of water resources (desalination, pumping of groundwater) (385).

There is increasing competition between land use for food production and land use for energy production: biomass, biofuels, hydrocarbon exploitation, solar and wind energy production.

Thus, these three sectors end up deteriorating each other, making this nexus **unsustainable** (due to conflicts in particular); moreover, food production will have to increase by 60% between now and 2050 to feed an expected world population of 9 billion people.

Some courses of action

Multiple courses of action already exist, most often based on sectoral solutions for water, food and energy:

► Water :

- ❖ Establish an **economic value for water**, based on the water withdrawal / resource availability ratio, which would be taken into account in the cost-benefit analyses of new energy projects and would be reflected in food prices, thus benefiting the most water-efficient producers.
- ❖ Identify and **remedy loss** (e.g. leakage) and degradation of the water resource (e.g. urban sprawl on slopes) and collateral ecosystem degradation (e.g. salinization of land due to dams, desalination discharges, ...).
- ❖ **Rationalize the use of drinking water** by limiting it to the consumption of living organisms; generalize the capture of renewable water (water vapor) for local uses (e.g. Warkawater, Fontus, solar water collector in Berkeley (386), ...); and develop differentiated uses of water (recycling, rainwater, ...).

The Water-Energy-Food Nexus at the global level (2)

► Food :

- ❖ Adapt crops to climate change and local water stress situations and develop solar and artificial intelligence-assisted irrigation (agribusiness).
- ❖ On a global scale, make sure certain natural resources are recognized and protected as **common property of humanity** in order to :
 - sanctuarize a given percentage of arable land and wetlands by integrated region (to be cultivated only in cases of recognized emergency); enforce agreements already made on the protection of certain aquifers,
 - authorize “farm seeds” for small farms (387) ; effectively promote the use of native species (388),
 - urgently implement a pollinator restoration plan; stop subsidizing environmentally damaging practices.

► Energy :

- ❖ Accelerate the transition to **solar and wind energy** through improved energy performance, reduced prices and greater storage capacity.
- ❖ Prohibit any new dam construction and, more generally, any production process (energy or food) whose ecosystem **creation/ destruction balance is irreparable**, such as the production of biofuels on arable land.
- ❖ **Decentralize energy production** in low-density territories in favor of microgrids*; facilitate self-sufficient and sustainable electricity production (solar, wind, aerothermal, etc.)

The Water-Energy-Food Nexus at the global level (3)

More integrated approaches

- ▶ The nexus approach promotes solutions that integrate not only the three components - water, energy and food - but also ecosystems, to be linked, if possible, with the achievement of sustainable development objectives*: the Water-Energy-Food Nexus implies understanding and managing often competing interests while guaranteeing the integrity of ecosystems (389).
- ❖ However, analysis of 29 case studies in the Mediterranean (including Morocco) showed a tendency to focus on a specific sector (e.g., agriculture); it also indicated that that implementation of nexus best practices is not sufficient to make progress towards sustainable development goals. Therefore, a more holistic nexus approach (e.g., including end-of-supply chain options) should be **systematically integrated** into the design or assessment of new solutions (390).
- ▶ **Food-city integration** (urban food initiatives with low environmental and energy costs): food cooperatives, joint purchasing groups, AMAPs, food belts*, urban agriculture (shared gardens), etc
- ▶ **Agriculture-ecosystem integration**: Songhai autonomous farm model (Benin), permaculture, agroforestry (391).
- ▶ **Maritime economy** (“blue economy”): this is probably the economic sector where the nexus approach is developed the least, although there is real urgency in implementing it, both to ensure food security and to preserve marine and coastal resources (see On the move 7).

The Water-Energy-Agriculture-Ecosystems Nexus : courses of action for Morocco

The instructions of His Majesty The King have always highlighted the centrality of the water issue and the need to actively seek to develop and preserve this vital resource.

As part of the important study program it has been conducting for several years on adaptation to climate change and sustainable development, the Royal Institute for Strategic Studies completed a study, in early 2020, entitled “The Water Issue in Morocco based on the Nexus Approach “Water-Energy-Agriculture-Ecosystems”. This study suggested four main courses of action.

- ▶ **Implementation of an integrated policy** for the water, energy, agriculture and ecosystems sectors by :
 - ❖ making sure public policies are coherent,
 - ❖ harmonizing and bringing closer together the planning timeframes of the strategies for these sectors,
 - ❖ reviewing the current legislative and regulatory frameworks governing these sectors in order to achieve integrated management,
 - ❖ reducing the very high number of stakeholders in the water sector,
 - ❖ making it compulsory to hold regular meetings of the Higher Council for Water and the Climate, the Interministerial Water Commission and the Water Basin Councils.
- ▶ Establishment of a new system of governance of the nexus sectors by :
 - ❖ adopting a civic participatory approach,
 - ❖ taking advantage of advanced regionalization,
 - ❖ giving priority to subsidiarity, with the “Hydraulic Basin” as the basic spatial unit,
 - ❖ Ensuring the integration of planning, implementation, monitoring and evaluation of programs related to the nexus,
 - ❖ separating the mission of planning, management and protection of the nexus’ natural resources - carried out by ministries - from the task of infrastructure development,
 - ❖ establishing water accounting for all of Morocco’s water basins,
 - ❖ encouraging innovative, win-win partnerships.

The Water-Energy-Agriculture-Ecosystems Nexus : courses of action for Morocco (2)

- ▶ Promoting **Research & Development, innovation and experimentation** in the nexus sectors by :
 - ❖ introducing the nexus approach in universities, engineering schools and professional training centers,
 - ❖ mobilizing universities to address water, energy and food security issues,
 - ❖ establishing continuous training programs to strengthen the human capacity of the institutions managing the nexus sectors,
 - ❖ promoting technology ownership and transfer and encouraging the establishment of entrepreneurial and innovation ecosystems in the nexus sectors,
 - ❖ institutionalizing, structuring and sustaining scientific and technical collaboration in the nexus areas,
 - ❖ devoting at least 1% of the annual budget of each sector to the financing of Research & Development and innovation projects in the nexus sectors.
- ▶ Promoting the **collective ownership of water-related issues** through :
 - ❖ textbooks, whose educational content must be clear, easy to understand and adapted to learners' ages,
 - ❖ modern, attractive, impactful and interactive educational tools,
 - ❖ platforms for "citizen debate" on themes related to the environment: climate, biodiversity, water, pollution...
 - ❖ educational field trips, supervised by teachers, specialists and leaders of NGOs operating in the environmental field.

Water in the world

Key water data (392)

▶ Water stocks

- ❖ 97% of the water on the planet is salt water.
- ❖ The 3% of the freshwater left is contained in :
 - glaciers: 77%
 - groundwater: 22% of the world's water
 - rivers and lakes: 1 %
- ❖ Only about 1% of the world's freshwater stock is available for human use.

▶ Water consumption

- ❖ 54% of usable and accessible resources were abstracted by the world population in 2013. By 2025, between 70 and 90% could be consumed.

- ❖ Global water use has increased six-fold in a century. It is increasing by 1% per year; at this rate, a global water deficit of 40% is anticipated by 2030.
- ❖ More than 20 countries already resort to forced supply: consumption of old groundwater and/or desalination of sea water.
- ❖ More than 80% of the world's wastewater is neither collected nor treated.

▶ Water abstraction for

- ❖ energy production: 15% of the world's total water abstraction and about 75% of all water abstraction for industrial use ;
- ❖ households: 12%; industry: 19%; agriculture: 69% (393)

Water in the world (2)

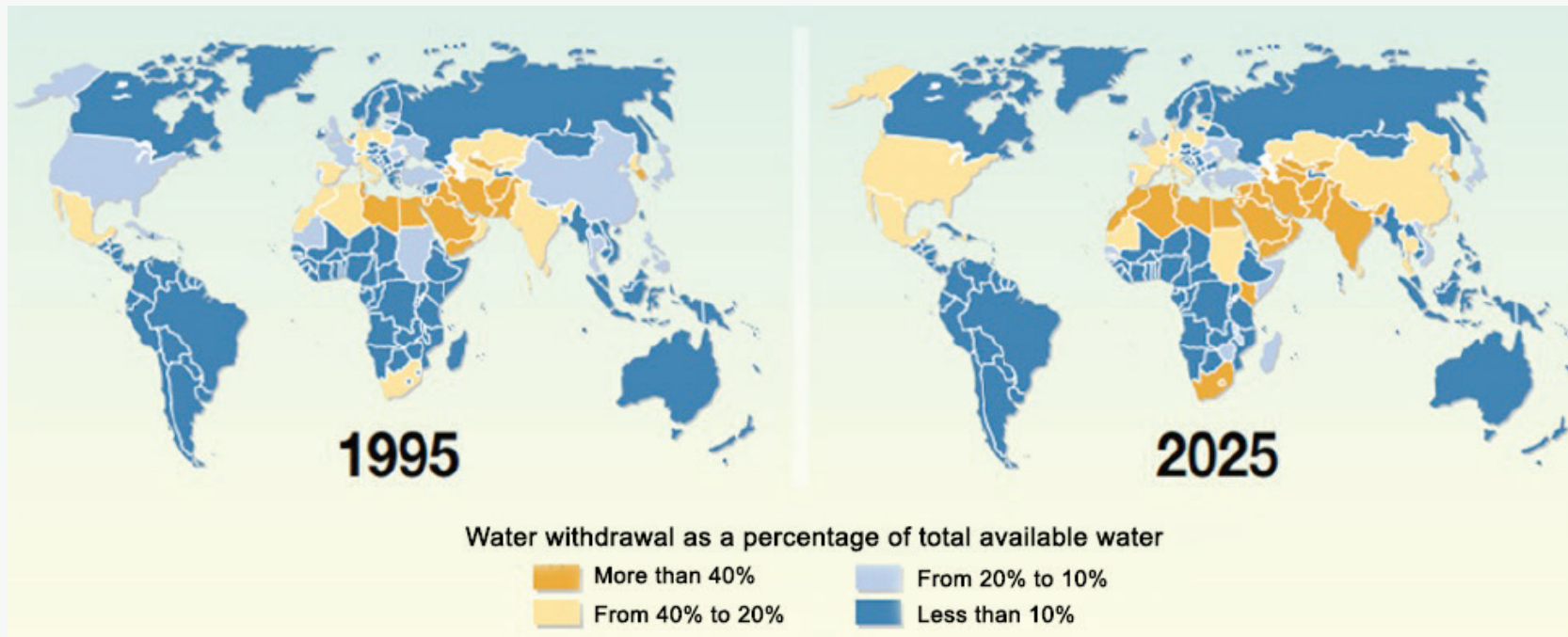
A water crisis is a global crisis (394)

- ▶ Access to water and basic sanitation already critical :
 - ❖ 2019: 4 billion people affected by water scarcity.
 - ❖ 2050: 52% of the world's population will be water stressed.
- ▶ Water at the center of development :
 - ❖ The first victims of these shortages: girls and women, thus increasing global inequalities.
 - ❖ There can be no agricultural development, quality education, sanitation or economic prosperity without sustainable access to water.

▶ Water and climate change (395) :

- ❖ Droughts, floods: water is the medium for much of the impacts of climate change.
- ❖ Direct impact of decreased water availability (rainfall, river flow) across seasons on agriculture and other water extraction sources, but also on energy production, navigation, fishing... and ecosystems.
- ❖ Impact of heavy runoff on drinking water resources (contamination, soiling).

Figure 69 : Global Water Withdrawal Projections



Source : United Nations Environment Programme

According to the UN World Water Development Report, in 22 countries, including those on the Arabian Peninsula and in Central Asia (a population of nearly 2 billion people), more than 70 percent of the total renewable freshwater resources are withdrawn. In 31 others, withdrawals range from 25% to 70%. Global water use has been increasing at about 1% per year since the 1980s, which suggests a 20-30% increase by 2050. Most of this increase will occur in developing and emerging countries.

Positive Planet Atlas
Positive Planet Foundation

5 EXAMPLES OF INITIATIVES

AMERICA



Park Slope Food Coop
(New York, USA)

What is it ?

food cooperative founded in 1973 that offers quality organic or fair trade products at unbeatable prices, in exchange for spending 2 hours 45 minutes behind the cash register each month.

Attali's opinion:

Consumers take ownership of the whole chain, starting with product selection.

AFRICA



Star Shea
(Tamale, Ghana)

What is it ?

A network that allows Ghanaian shea butter women growers to be informed of the price by SMS in order to sell this cosmetic product at the right price and avoid producing more than necessary, thus avoiding waste.

Attali's opinion:

I do not wish to come across as immodest, but this company, which we have supported, is an international model. Star Shea is now the third largest exporter in the country.

EUROPE



Clean Up Day
(Tallinn, Estonia)

What is it ?

Two Estonian engineers have been organizing huge spontaneous parties on their website since 2008, inviting strangers to get together to clean up their city. The movement has spread all over the world.

Attali's opinion:
Amazing stuff. An example of the strength of citizens who are able to mobilize outside government control

ASIA



SHARING CITY
(SEOUL, SOUTH KOREA)

What is it ?

In 2012, the mayor of Seoul launched a plan for the city to become "Sharing City Seoul" by encouraging clothing swapping, car rental, meal sharing. Bartering is also back in fashion thanks to a virtual currency, the ePusami.

Attali's opinion:

In 2012, the mayor of Seoul launched a plan for the city to become "Sharing City Seoul" by encouraging clothing swapping, car rental, meal sharing. Bartering is also back in fashion thanks to a virtual currency, the ePusami

OCEANIA



VALLEY OLIVES
(MANGAWHAL, NEW ZEALAND)

What is it ?

An organic olive oil farm whose harvest is ensured by traveler-workers who are housed and fed, provided they get their hands dirty. This concept was born in England in 1971 and has become a worldwide phenomenon.

Attali's opinion:

This farm is becoming the center of an international network for exchange on the organic olive.



(Nasa) LP/Infographie - T.H.

Source : The Positive Planet Atlas: Les Liens qui libèrent, 2015

The City-Mobility-Ecological Footprint Nexus

Situation

The need for social distancing (90% of COVID-19 contaminations are urban (396)), the fear of mobility as a vector of contamination, the securing of supplies... are rationalizing our perception of the city. The silence and emptiness that fell on cities during the lockdown have changed that perception. Urban clutter is now more deafening, increasingly intolerable.

Indeed, the City-Mobility-Ecological Footprint Nexus is making the **congestion** of urban traffic, urban waste, the goods on offer, the goods consumed, public transport, inadequate roads, rush hours... a central part of the issue. A congestion that exposes both overconsumption in developed countries and shortages (of infrastructures in particular) in developing countries. Congestion also in terms of noise, air quality and promiscuity. Congestion in terms of access to employment as well as to the Internet, to the education system as well as to the health system.

Urban growth and increased mobility are intrinsically linked: cities, built from the start on marketplaces, are primarily driven by trade, both in terms of imported/exported goods and of intra-urban flows of people, goods and services. This link contributes to **increasing the ecological footprint** in an exponential way (pollution, waste, ecological destruction).

Structural trends

- ▶ **Megalopolization** (397) refers to the growing urban concentration that characterizes the industrial era. It refers to the city as a civilizing center, a place of modernity and progress, a political entity, a juxtaposition of socio-cultural microcosms and multimodal hubs giving access to international mobility, including migration.
- ▶ **Urban impoverishment** (398) : in 2050, 2 billion urban dwellers will be living in slums, due to population growth that is far greater than the economic growth needed to cope with it (infrastructure, housing, drinking water, sanitation, employment).
- ▶ **Hydrotropism**: strongly attracted by water, urban dwellers are mainly concentrated along rivers or coasts, thus generating deep territorial imbalances within the same country, discharging their waste into the sea or rivers, exposing themselves to increased vulnerability due to climate change (rising sea levels, degradation of the ocean environment).

Thus, the pandemic has raised critical questions about the future shape of the city and urban life, including how to win in this regard. (See Data #10)

The City-Mobility-Ecological Footprint Nexus (2)

Post-COVID possible courses of action: the city-valley

How can we reduce the systemic **congestion** of cities? Urban planning, by dividing the city into distinct usage zones (residential, industrial, economic activity zones, etc.), has generated multiple urban traffic flows (home/work, home/school, home/shop or leisure trips) and bottlenecks in obligatory passageways.

The main response of elected officials to this congestion is to reduce individual mobility and promote soft mobility and public transport, which are not particularly compatible with an ageing population, promiscuity and the travel needs imposed by the urban environment,

It is therefore necessary to take a different look at both the urban geography and societal needs, keeping the following guidelines in mind :

- ▶ the strong aspirations for better living mentioned in the first part of this report,
- ▶ the nexus approach (see above),
- ▶ the conciliatory power of hybridization, rather than opposition or constraint.

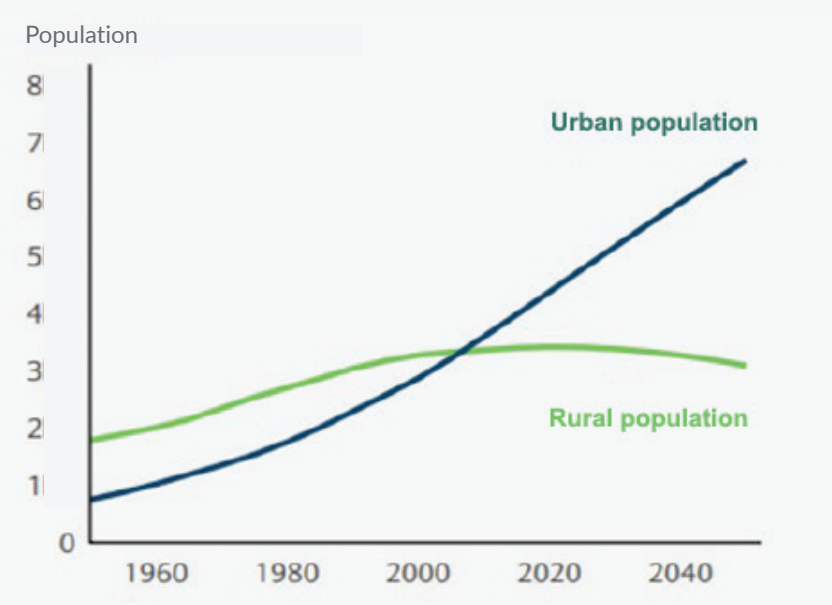
The courses of action mentioned here suggest a city-valley (geographically speaking) - an ecological, sustainable one, with a “charter-based” governance (399), or even a participatory budget, favoring short circuits, renewable, decentralized energy and inclusive employment. Its main pillars are the following :

▶ Time and space management tailored to the inhabitants’ needs

As for societal needs, the analysis of individual urban trips clearly indicates the places of attraction: schools, workplaces, shops, health, leisure... Their number can be increased, such as local shops or recreational areas, if **urban land use is controlled** (right of way and price), thus making it possible to recreate living areas, real local territories.

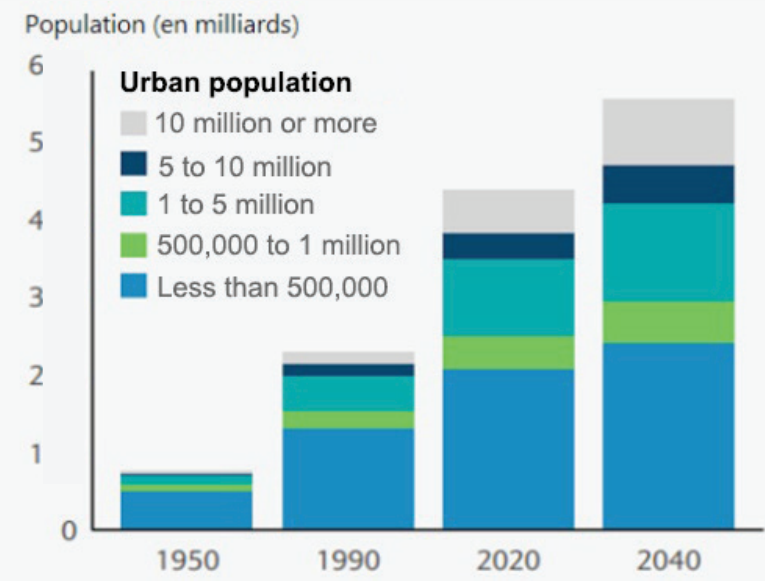
The **de-synchronization of school and work times** thanks, in particular, to the widespread use of co-working spaces (especially in the spaces left vacant because of work stoppage due to the pandemic), to remote work and to the shortening of journeys: these are all means of easing the flow of work, while at the same time creating jobs (upkeep of the co-working offices, school pick-up, computer maintenance, etc.).

Figure 70 : Population growth has led to greater urbanization



Source: UN World Urbanisation Prospects 2018, Barclays Research

Figure 71 : ... and to a concentration in increasingly densely populated cities



Source: UN World Urbanisation Prospects 2018, Barclays Research

The City-Mobility-Ecological Footprint Nexus (3)

► Using natural landforms to bring nature back into the city

Today, natural landforms (hills, rivers) are combined with artificial landforms (high-speed roads, ports, large infrastructures - cemeteries, shopping centers, etc.), creating fractures in the urban fabric that urban planners have sought to overcome (bridges, bypasses), thereby causing real bottlenecks.

Thus it is between these fractures that real living areas must be organized.

- ❖ Following the example of the valleys, it would be possible to “live well” on a daily basis (see the concept of the “15-minute city” (400)) thanks to a **total mix of zones**.
- ❖ **Green spaces** (parks, food gardens, wild spaces) would be reintroduced in hilly areas to ensure recreational, food, sanitation (carbon capture (401)) and climate regulation (urban demineralization) functions.
- ❖ The re-appropriation and transformation of **urban wastelands** (buildings or disused spaces) and vacant spaces (commercial and residential) should facilitate this new approach to urban development.

► Developing new forms of housing

A new **town planning** would integrate shops, offices and residences within the same architectural project. A building could thus offer a family entrance on one side and an office entrance on another for the same apartment.

Housing is at the heart of better living: better protection against noise and night light; functionalities adapted to an ageing population, to telecommuting (including schooling); better connectivity, ergonomics, general cleanliness; using rainwater instead of drinking water (toilets, irrigation), etc

Finally, **better urban management** must reduce the energy bill (positive or zero energy buildings) and waste (water in particular), accelerate the transition to renewable energy, rethink and reform infrastructures and equipment (sanitation, public services to be dematerialized, etc.).

► Promoting the sustainability of goods, people and services

City “trades” should make it possible to recycle goods, to keep people in their homes (rents, services) and to ensure the upkeep of the environmental amenities within the city through collective management (403)

The CMEF Nexus

Cities

- ▶ Growing urbanization :
 - ❖ in 2007, 50% of the world's population became urban.
 - ❖ in 2050, nearly 70% of the world's population, i.e. 6.7 billion people, will be urban dwellers (257).
- ▶ Megacities : since 1990, the number of :
 - ❖ cities with 5 to 10 million inhabitants has doubled
 - ❖ cities with more than 10 million inhabitants has tripled (10 in 1990, 33 in 2018 and probably 41 by 2030) (404).
- ▶ Promiscuity and poverty, drivers of contamination :
 - ❖ In South Africa, 5 million households lack a refrigerator, 46% of households have toilets, one-third share toilet facilities with other families (405).
 - ❖ Workers in the informal economy are particularly affected by the pandemic, from the urban poor in New York to the people of Dakar: 61% of the global workforce is dependent on the informal sector (406).

▶ The post-COVID city :

- ❖ Tendency to migrate from megacities to human-sized cities, reinforced by digitalization.

Mobility

▶ Migration

- ❖ 164 million migrant workers, about 4.7% of the world's workforce, according to the International Labor Organization.
- ❖ They account for 40% of the workforce in the Arab States, 20% in North America and 18% in Europe.
- ❖ Remittances to the country of origin: \$714 billion in 2019, representing a significant share of emerging countries' GDP: 28% in Nepal, 13 to 22% for Honduras, El Salvador and Guatemala and 6 to 13% for Lebanon, Egypt and Morocco (403).

The CMEF Nexus (2)

► Urban mobility

- ❖ High motorization rates in developed countries in 2014: 661 and 569 individual vehicles per 1,000 inhabitants in North America and the European Union respectively (407), but the demographic effect in some developing countries is increasingly felt.
- ❖ According to the World Bank (408) people's mobility, together with the transport of goods, generates about 23% of global CO2 emissions. If no action is taken, the proportion of transport in CO2 emissions could grow to 33% by 2050.
- ❖ Urban mobility in tomorrow's world (409) : five trends :
 - Electric mobility: about 60% of the world's new electric cars are registered in China, considered the empire of electric mobility.
 - On-demand mobility: car sharing instead of individual cars, to further reduce greenhouse gas emissions (40% of traffic is about finding a parking space).

- Self-driving cars: by 2030, self-driving cars will account for 16% of all vehicles (92).
- Car-to-X communication: networked vehicles that communicate with each other in real time (Car-to-Car) or with nearby objects (Car-to-Mobile). For example, in the Chinese city of Wuxi, nearly 1.76 million cars "communicate" with other cars, buses, traffic lights and road signs.
- Smart public transportation: in particular, autonomous electric buses and drone cabs (drone cabs will be tested in Dubai, Los Angeles, Dallas and Singapore in 2020).

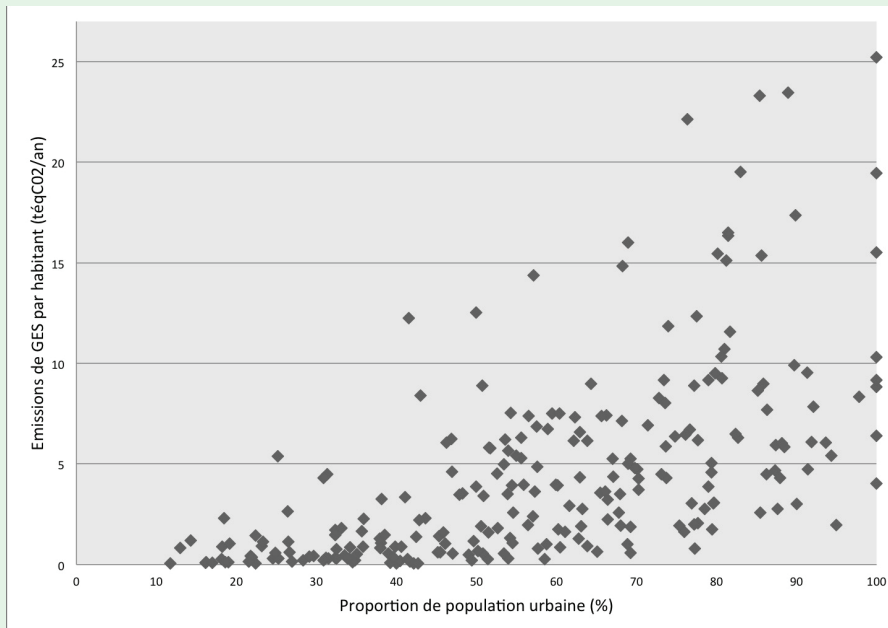
Urban ecological footprint (410)

- The more a country consumes fossil fuels, the more its urban hierarchy is vertical (densification). The more urbanized a country is, the higher its greenhouse gas emissions (see illustration opposite).
- In tropical countries, the population shift from the countryside to the cities is associated with increased exploitation of tropical forests.
- Post-COVID: possible increase in urban sprawl, to the detriment of ecosystems (arable land, clearing).

DATA N°10

The CMEF Nexus (3)

Figure 72 : Greenhouse gas emissions per capita as a proportion of the urban population



On average, the more urbanized a country is the higher its per capita emissions (410).

Données : The World Bank <https://donnees.banquemondiale.org/>

Vertical Urban Agriculture in Singapore (VertiVegies)



Due to COVID-19, the Singapore government provided an express grant of US\$22.6 million for projects to increase the local supply of eggs, vegetables, and fish to ensure the country's food security (411).

O N THE MOVE N°8

Towards a post-COVID Moroccan city

Rabat, a green city

- ▶ Listed as a UNESCO World Heritage Site in 2012, Rabat was named a “green city” in 2010 by the Earth Day Network Association.
- ▶ Under the guidance of His Majesty King Mohammed VI, the Integrated Development Program for the city of Rabat was launched in 2014. Called “Rabat City of Light, Moroccan Capital of Culture”, it aims to improve the quality of life of the inhabitants by promoting the development of green spaces, such as the Hassan II Natural Park (covering a total area of 20 hectares) inaugurated in 2018, and the rehabilitation and renovation of the botanical testing garden and the Nouzhat Al Hassan gardens (11 hectares).
- ▶ Rabat now has 2,404 hectares of green spaces, or a ratio of green spaces per capita of 20 square meters, double the rate recommended by the World Health Organization.



Benguerir, city of the futur

- ▶ The city of Benguerir is intended to experiment with the urban practices of the future with a new model of urban planning and spatial organization, in which priority is given to nature and knowledge (412).
- ▶ The city is home to the Mohammed VI Polytechnic University, which is committed to developing innovative research facilities based on a network of “living labs”, such as the experimental farm (110 hectares), the Green energy park and the experimental mine for the development of the mining industry in Africa (413).



Towards a post-COVID African city

▶ Senegal

- ❖ Better **urban-rural integration**: “Government policy aims to create a continuum between agriculture and the processing industry, between the primary and secondary sectors. This was the ambition of the Plan Sénégal Emergent (Emerging Senegal Plan - PSE) from the outset. The crisis caused by the COVID-19 pandemic has confirmed that this choice was the right one and that its implementation must be reinforced and accelerated.”
- ❖ A **sustainable city modernization program** “PROMOVILLES” (2017): more than 300 km of roads (including sanitation, power supply, public lighting and landscaping), development of public spaces that respect environmental standards, more balanced urban development at the national level.

▶ Burkina Faso

- ❖ Planning, design and implementation of **economic, ecological and sustainable infrastructure** (technical, financial, social, societal and governance innovations) to strengthen the resilience of neighborhoods at risk of flooding (project: “Building the city together, a city by and for the inhabitants”): the case of the undeveloped neighborhoods of Yamtenga (Djikofè) and Rayongo in Ouagadougou, Burkina Faso”.
- ❖ Strengthening **health services** to fight the pandemic (project funded by the International Development Association).

▶ Cameroon

- ❖ A pilot project that could be replicated, “**EDEA intelligent and sustainable city**” (June 2020), for:
 - better access to various resources (energy, public lighting, water, etc.),
 - better waste management (sorting, recycling),
 - better health services (municipal hospital, smart healthcare).

▶ Towards better multi-level governance

- ❖ In South Africa, intergovernmental associations such as the South African Local Government Association (SALGA) have supported municipalities, particularly in the dissemination of information to the population.
- ❖ Kenya has implemented collaborative mechanisms between the national and regional governments.

▶ Cities on the front lines of the pandemic

- ❖ In South Africa, residents of a slum on the outskirts of Johannesburg have been relocated (414).
- ❖ In the city of Machakos, Kenya, the municipality has waived the payment of water bills for the period from May to December 2020, thus enabling everyone to have access to drinking water (415).
- ❖ A coalition of architects, planners and urban managers is calling for a rethinking of the African city that takes better account of the needs and general interests of city dwellers (416).

"An African city governed with equity and responsibility, in accordance with the universal values of the Mandé Charter of 1222" ⁽⁴¹⁶⁾

- ▶ **Respect for each life:** Every human life is a life. It is true that a life comes into existence before another life. But no life is more 'ancient', more respectable than any other. In the same way, no one life is superior to any other.
- ▶ **Reparation of wrongs:** As each life is a life, any wrong done unto a life requires reparation. Consequently, no one should gratuitously attack his neighbor; no one should wrong his neighbor; no one should torment his fellow man.
- ▶ **The family spirit and the importance of education:** That each person should watch over their neighbor; that each person should venerate their progenitors; that each person should educate their children as it should be done; that each person should provide to the needs of their family.
- ▶ **The fatherland:** That each person should watch over the country of their fathers; for 'any country, any land which were to see people disappear would face decline and desolation.
- ▶ **Rejection of war:** The essence of slavery is today extinguished 'from one wall to the other' from one border to the other of the Manden. Raids are banned from this day onwards in the Manden. The torments born of these horrors have ended from this day onwards in the Manden. What an ordeal this torment is! Especially when the oppressed has no recourse. The slave does not benefit from any consideration, anywhere in the world.
- ▶ **Banish serfdom and famine :** Hunger is not a good thing. There is nothing worse than this on this earth. As long as we hold the quiver and the bow, hunger will no longer kill anyone in the Manden. (...) War will no longer destroy any village for the acquiring of slaves. That is to say that no one will from now on place the bit in the mouth of his fellow man in order to sell him. Furthermore, no one will be beaten in the Manden, and all the more so put to death because he is the son of a slave.
- ▶ **Freedom to act, to speak:** Man as an individual made of flesh and bone of marrow and nerves, of skin covered in hair, he eats food and drink. But his 'soul', his spirit lives on three things: he must see what he wishes to see; he must say what he wishes to say and do what he wishes to do. If one of these things were to miss from the human soul, it would suffer and would surely become sick. "

That is the oath of the Mandingo, addressed to the entire world. (excerpts)

The Tourism-Environment-Employment Nexus (TEE)

Situation

Tourism is a fully **globalized** activity (see Data n°5): it feeds on global flows and benefits developing countries as much as developed countries - if not more.

Tourism is crucial in terms of generating **local jobs**, particularly for a population that is relatively unskilled or more interested in physical activities (sports, outdoor activities, etc.) than in cognitive jobs, for example. Often seasonal, tourism provides an important source of income for people in the informal sector, especially in developing countries. Even if it is precarious and underpaid, this employment is necessary.

However, tourism is sawing off the branch on which it is sitting: the massive influx of tourists (**overtourism**) who care little for the environment is damaging the global ecosystem. More and more outstanding places are closing to tourism, either completely (Reykjadalur Valley, Galapagos Islands, Maya Bay, Egyptian tombs), or by limiting the number of visitors (Taj Mahal, Rapa Nui, Dubrovnik...etc.). Without the implementation of a truly sustainable tourist policy, many of these places - Petra (Jordan) for example - could **disappear** forever (417).

Finally, as the source of 5% of global greenhouse gas emissions*, tourism's already high carbon footprint could increase by 131% by 2050, while its contribution to energy consumption would increase by 154%.

Trends

- ▶ **Accelerated growth** in tourist flows, international mobility and the sector's revenues during the 2010 decade; increased diversification of forms of tourism (seaside, city, outdoor, industrial, low-cost, etc.) and hospitality (hotels, resorts, lodges, rentals, etc.).
- ▶ **Hypermobility:** increase in international flights and the fluidity of access to foreign countries have encouraged tourism, education abroad and labor immigration.
 - ❖ Nevertheless, the travel industry may only partially recover after COVID-19 restrictions are lifted, as domestic regulations and behavioral changes may reduce the ease and frequency of travel.
- ▶ **Overtourism:** mass tourism leading to a saturation of accommodation capacity and a negative impact on the quality of life of indigenous populations and natural ecosystems.
 - ❖ Soaring cost of living (especially real estate), acculturation, loss of identity for local populations, uncivilized behavior, pollution and degradation of sites (Angkor, Venice), overconsumption of local resources (water)... are the price.
- ▶ **Tourismophobia:** on the part of local populations in reaction to overtourism.

The Tourism-Environment-Employment Nexus (TEE) (2)

- ▶ **The key role of the World Tourism Organization (WTO):** The World Tourism Organization, which became a specialized agency of the United Nations in 2003, now plays an essential role in the evolution of **sustainable tourism**. Its significant potential for action (private and public sectors combined) promotes tourism as a direct and indirect contributor to each of the 17 United Nations Sustainable Development Goals (418).
 - ❖ As early as March 2020, the UNWTO **Global Tourism Crisis Committee**, a unique cross-sector platform, coordinated international efforts to mitigate the impact of the pandemic on jobs and businesses and accelerate the recovery of tourism in a sustainable and inclusive manner, taking into account the global health situation (419).
 - ❖ Innovation and **digital transformation** of the tourism sector - including leveraging data from the Google search engine (UNWTO Tourism Recovery Tracker) to better target both current demands and disincentives to international travel - are at the heart of UNWTO's Tourism Acceleration Agenda (420).
 - ❖ The other main UNWTO lines of action are sustainable development, competitiveness, ethics, culture and social responsibility; they are to be leveraged to fight against poverty, unemployment, climate change and environmental degradation. In this respect, **vocational training** is the engine of the desired evolution.
- ▶ **Tourism and the ocean:** driven by the Decade of Ocean Sciences (2020-2030, United Nations) - and although it was the subject of recommendations by the UNWTO as early as 2011 - the issue of ocean-related tourism, particularly in the Small Island Developing States (SIDS*), has suddenly become more serious in 2020.
 - ❖ The “ocean economy” is worth about \$2.5 trillion globally, and 40% of the world’s population depends on the biodiversity and services provided by the ocean, including food, freshwater (through evaporation), renewable energy, trade and tourism (421).
 - ❖ The integrity of marine ecosystems is threatened by climate change and overfishing, but also by pollution and environmental degradation, to which the tourism industry is contributing.
 - ❖ Although there has been a great deal of mobilization to solve these problems (see UpLink platform projects), very few projects have come from the tourism industry, despite its economic weight and strong dependence on Nature (see following pages).
 - ❖ The protection of coral reefs, for example, should call for a significant contribution from this industry. Indeed, in addition to their intrinsic properties, these reefs represent a powerful attraction for tourism (wildlife tourism), which can create jobs even in remote areas in developing countries (see illustrations on the following pages) (422).

THE VALUE OF CORAL REEFS

Taking action to prioritise coral reefs can deliver benefits of \$2.7 trillion USD, contributing to the safety, nutrition, economic security, health and wellbeing of millions of people

**1
BILLION**

More than one billion people benefit directly from coral reef resources for food and as a source of income through activities related to fishing and tourism

**60,000
YEARS**

The time that the Great Barrier Reef has been a part of the culture of Aboriginal and Torres Strait Islander people

1/4

Coral reefs support 25% of marine life

**\$36
BILLION**

Coral reef tourism contributes \$36 billion to global tourism industry annually

97%

A healthy reef can reduce coastal wave energy by up to 97%

**\$9
BILLION**

Healthy coral reef ecosystems reduce shoreline erosion and protect coastal housing, agricultural land and beaches with a global net benefit of 9 billion USD/year

300-400x

The prospect of finding a new drug in the sea, especially among coral reef species, may be 300 to 400 times more likely than isolating one from a terrestrial ecosystem

ICRI
INTERNATIONAL
CORAL REEF INITIATIVE

PRODUCED BY VULCAN INC., 2020

Source : <https://www.weforum.org/agenda/2020/12/how-the-world-is-coming-together-to-save-coral-reefs/>

MAPPING OCEAN WEALTH

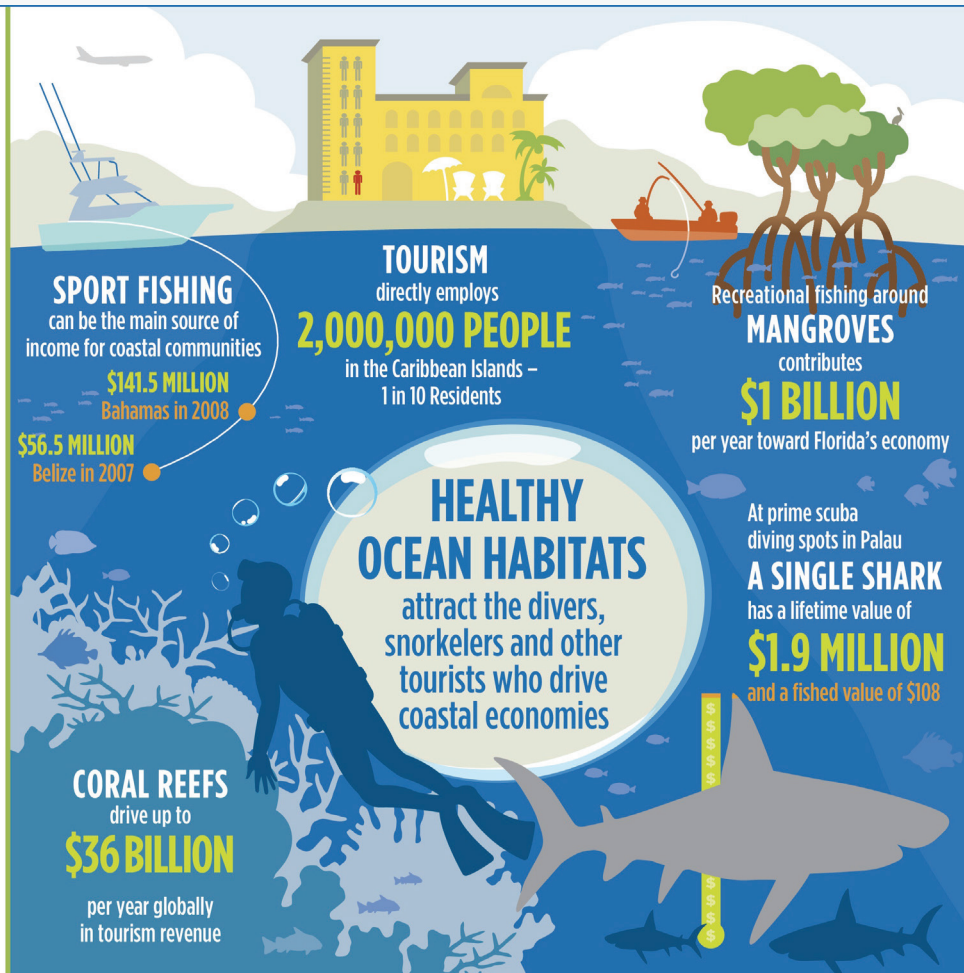
TOURISM

Ocean habitats provide scuba diving, fishing and other recreational opportunities that attract tourists from around the world.

Coastal communities, planners and the tourism industry should protect and restore the habitats that drive local economies.

Mapping Ocean Wealth demonstrates what the ocean does for us today so that we maximize what the ocean can do for us tomorrow.

oceanwealth.org @ocean_wealth



Ecotourism, or tourism relating to Nature amounts to 3.9% of the 10.4% of world GDP that tourism sector, as a whole, generates, or 343.6 billion dollars..

Yet Nature is often significantly undervalued. Thus, almost half of the total tourism value of the world's coral reefs comes from people who enjoy white sand beaches, the view of the turquoise waters and fresh seafood dinners. Even though these visitors might never put their heads underwater, their journey still depends on the health of the offshore reefs (423).

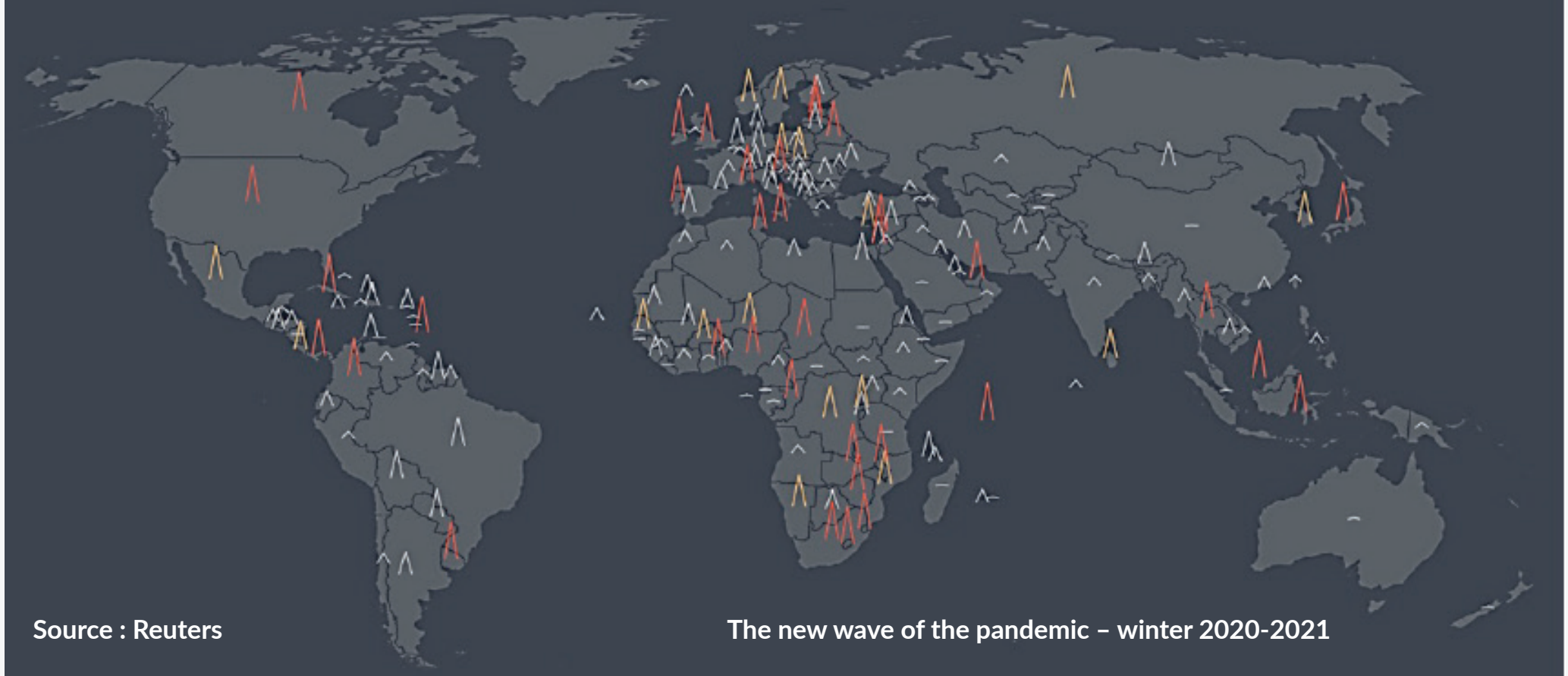
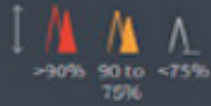
Source : <https://oceanwealth.org/ecosystem-services/recreation-tourism/>

The Tourism-Environment-Employment Nexus (TEE) (3)

Pre-COVID courses of action

- ▶ **Air transport** stakeholders are already working to halve emissions from air travel by 2050 (relative to 2005 levels), through new aerodynamic designs (e.g. Airbus' Maverick and Boeing's Transonic Truss-Braced Wing projects) or the use of "renewable hydrogen" engines" (424).
- ▶ The **managers of the common good** - i.e. representatives of the State (mayors, local elected officials) - must henceforth systematize their approach to the territory by managing **long-term priorities before short term** ones. For example, before granting permits for construction or the exploitation of ecosystems for tourism purposes, the following actions should be undertaken :
 - ❖ Map the natural environment systemically, anticipating the intersecting impacts of its alteration in order to take the necessary protective and restorative measures, as was done, for example, by the Madras High Court, which prohibited further encroachment on wetlands - 80% of which have already been drained or polluted - or by Thailand, which closed its famous Maya Bay beach to restore coral reefs that were destroyed by tourism (425).
 - ❖ Ensure adequate water availability and reject the creation of golf courses, for example, when their withdrawal of irrigation water affects water availability for the local population.
 - ❖ Establish and enforce the "polluter payer" principle, especially for private resorts (international resorts).
 - ❖ Encourage the virtualization of the built heritage (virtual tours, games in real settings, ...) by authorizing drone shots, subsidizing a 3D scanning of the heritage, ...
- ▶ Being fully aware of the threats to their activity, the tourism stakeholders have started a transformation that must be generalized (426) :
 - ❖ Digital technology : adaptation to voice search and control, as well as personalization from web marketing (for example My Street Book) and chatbots; development of virtual reality; robotization (427) ; artificial intelligence (customer services, security); voice and facial recognition; Internet of Things (smart hotel rooms); augmented reality (tourist or historical information during visits).
 - ❖ Diversification: solo travel; senior travel; religious travel (428) ; "organic" food, ...
 - ❖ Ecotourism : ecological travel (electric vehicles, carbon credits, ...), ethical and sustainable tourism (ecolodges), nature tourism (trekking), voluntourism (tourism with an element of volunteering) (429).
 - ❖ Immersion: local experience (festivals, local cuisine, host families, etc.) but also experience designed to build customer loyalty (especially with respect to local tourism).

How close is the current weekly average to the country's peak ?



Source : Reuters

The new wave of the pandemic – winter 2020-2021

The Tourism-Environment-Employment Nexus (4)

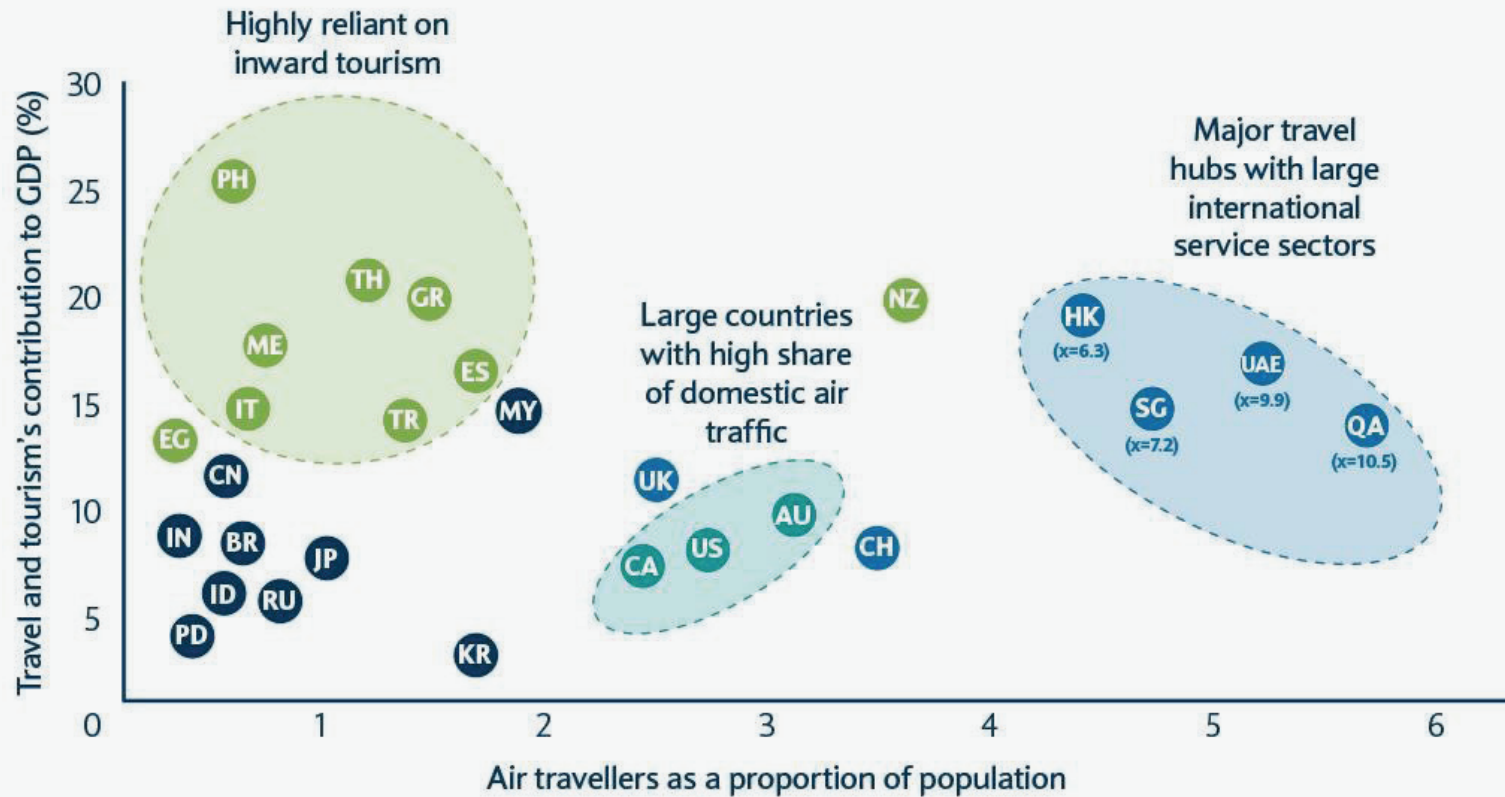
Impacts of the pandemic

- ▶ International tourism is one of the sectors that has suffered the most from the Great Containment: **international tourist arrivals have plummeted by 74%** in 2020, dropping to the level of 30 years ago. This plunge in international tourism could result in an **estimated economic loss of more than 2% relative to 2019 global GDP**.
- ▶ The World Tourism Organization's forecast for 2021-2024 indicates a possible rebound in international tourism by the second half of 2021. In this case, a return to 2019 levels in terms of international arrivals could take between 2.5 and 4 years.
 - ❖ However, the epidemiological situation in January 2021 (see map opposite) – at a time when a new wave is looming, including in China (Shijiazhuang) - could delay this recovery, leading to permanent closures of tourism activities (430).
 - ❖ Moreover, the longer the pandemic lasts, the deeper and longer-lasting the economic crisis that follows, constraining the purchasing power of potential tourists.
 - ❖ Finally, most green stimulus packages agree on the need to introduce “carbon costs” into market prices, which would significantly increase prices, particularly in air transport.
 - ❖ New trends: private and luxury tourism, road-trip, cleantech and technology tourism (431).

Post-COVID courses of action

- ▶ **Clean tourism, adapted to the COVID-19 crisis (426) :**
 - ❖ New safety and hygiene standards, including room service. Towards the creation of a “COVID-safe” label ?
 - ❖ Refocusing on leisure tourism, given the severe (and probably lasting) decrease in business tourism.
 - ❖ Shift from international to local: The various travel restrictions and the reluctance of many people to travel abroad are currently prompting greater focus on local tourism.
 - ❖ In the face of the development of external tourism, promote a type of tourism which is independent of tour operators (camping cars, B&Bs): rural tourism (Uruguay, Majorca), outdoor leisure activities, slow tourism (river tourism, for example), etc, ...
 - ❖ Development of contactless payments and all forms of automation aimed at reassuring customers.
- ▶ The desire for “greening” expressed during the pandemic should also encourage tourism professionals to rethink the issue of “sustainability”, given the more demanding public :
 - ❖ by favoring direct trips and long stays,
 - ❖ by organizing the collection and treatment of waste in countries without such amenities (example Basata Village, Egypt),
 - ❖ by favoring renewable energies and the conservation of drinking water, wherever possible,
 - ❖ by closely monitoring environmental degradation and providing environmental education to tourists,
 - ❖ by improving the brand image of sustainable tourism through a significant and effective commitment in this regard (432).

Figure 73 : Types of impacts tourism and travel have on countries



Exposure to air travel varies by country. In some countries air travel by their own populations is not particularly high, but they are very dependent on inward tourism (Thailand, Philippines, Greece, Spain, Italy, Egypt). Others have limited tourism industries but serve as international travel hubs or have large service sectors and a high share of migrant labor and expats (Hong Kong, Singapore, UAE and Qatar). Relatively small countries also often have large international services sectors (UK, Switzerland) requiring frequent international flights, while some very large countries rely on flights for domestic transportation (US, Australia, Canada). All these economies would be affected by a reduction in air travel.



- ▶ *Race To Zero is a global campaign to rally leadership and support from actors outside of national governments to join the Climate Ambition Alliance, which was launched by Chilean President Sebastián Piñera at the 2019 UNGS Climate Action Summit.*
- ▶ *This campaign rallies businesses, cities, regions and investors for a healthy, resilient, net-zero emission post-COVID recovery to prevent future threats, create decent jobs, and generate inclusive and sustainable growth.*
- ▶ *The Coalition of Leading Net Zero Initiatives represents 452 cities, 22 regions, 1,101 companies, 45 of the largest investors, and 549 universities. These “real economy” actors join 120 countries in the largest alliance ever committed to achieving net-zero carbon emissions by 2050 at the latest. Collectively, these actors now cover nearly 25% of global CO2 emissions and over 50% of GDP.*
- ▶ *The goal is to build momentum around the shift to a decarbonized economy ahead of COP26, during which governments should enhance their contributions to the Paris Agreement. This will send a resounding signal to governments that businesses, cities, regions and investors are united to achieve the Paris goals and create a more inclusive and resilient economy.*

Source : <https://racetozero.unfccc.int/>

Sustainable tourism in Morocco

Situation

The 14 km of sea separating it from Spain should lead Morocco to capitalize not only on the regional redeployment of industrial value chains (433), but also on its tourism potential.

Economic recession in Morocco - estimated at 7 percent (see Part I, Chapter One of this report) - is the result of an exceptional drought that severely affected the agricultural sector (the largest contributor to market GDP), as well as a slower-than-expected recovery from the pandemic, even though the pandemic has had relatively little impact on the Kingdom, due to its exogenous economy.

The tourism industry (7% of GDP) is among the sectors most affected: tourist arrivals fell by nearly 79% during the first 11 months of 2020, compared to the same period in 2019 (13 million visitors in 2019, a record year). According to the Foreign Exchange Office, travel receipts, the main component of services exports, fell by almost 54% between 2019 and 2020 (51). Tourism generates more than 2 million indirect jobs, most of which are in the informal sector (434).

The winter resurgence of the pandemic (second wave in Morocco) and the slow pace of vaccination worldwide could spell doom for many businesses in this sector, both domestic and foreign.

Courses of action

It is no doubt time to consider a **thorough diversification** and **reform of Moroccan tourism**, drawing not only on the emerging tourism and sociological trends mentioned above, but also on the nexus approach. Hence this proposed program to be implemented as of 2021, in three phases.

- ▶ **Phase 1: Prepare** “Vision 2030” (Tourism Development Strategy), to succeed the Vision 2020, and confirm the transition from mass tourism to sustainable, local and spaced tourism. Train massively in order to have more resilient professionals, who are aware of the new demands and are ready to build an offer that integrates technology, is more respectful of the environment and is more customized.
- ▶ **Phase 2: Make the volume of aid** to the tourism sector conditional on the **preservation of Nature** (where possible), following the example of New Zealand (currently unemployed hotel workers are assigned to conservation programs in Nature tourism zones (435)). **Launch a tourism promotion campaign**, centered on religious and outdoor tourism, to revive the business as soon as possible.

O N THE MOVE N°10

Sustainable tourism in Morocco (2)

Safe religious tourism (*COVID-compliant*) is more resilient to the crisis because it is often linked to fixed dates (pilgrimage). It also represents an opportunity for Morocco to spread the tolerant Islam it practices, at a time when radicalization is on the rise in Africa.

Outdoor non-bathing tourism is an opportunity to spread tourists, in small groups, over the entire territory, in accordance with the new “sustainable, local and spaced” logic. It also makes it possible to promote little-known destinations (*road trips, skiing, trekking, hiking*), far from the seaside (Agadir) or folkloric (Marrakech) concentrations which do not always enhance Morocco’s image as a modern country.

► **Phase 3: Put in place the conditions** of a vast and rapid transformation of Moroccan tourism (new standards, “Clef Bleue” label and controls, issuance of blue bonds, digital signposting) along two axes: seaside tourism and nature tourism.

- ❖ A double “blue” tourism: a sustainable seaside tourism, i.e. spread over small units to avoid massification and the degradation of the environment (pollution, water), of ecolodge type, and also blue tourism, in the sense of the Günter PAULI philosophy: biomimetics, recycling, economic development through environmental protection... (ecotourism). See the example of Madiba & Nature in Cameroon (436).

- ❖ A “Nature” tourism which makes it possible to decongest the seaside by offering a professional and sustainable exploitation of the Atlas (Oukaïmeden) - the drop in the European snow cover would justify the investment in the necessary infrastructure - and of Morocco’s little-known natural places (Souss Massa, Dades Gorges, Fint oasis, ...).



Crédits: Anne-Claude Faillétaz / CC BY-NC-ND 2.0 / Flickr

A VENUES FOR ACTION (9)

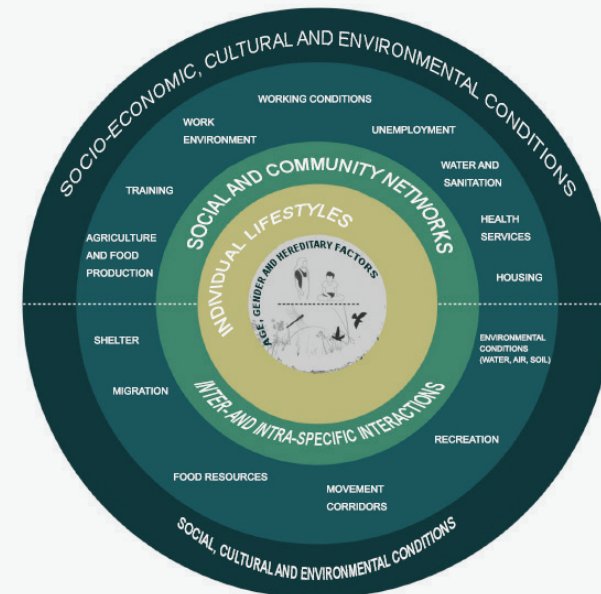
Conclusion

- ▶ Getting out of the Anthropocene is by no means easy. It is nothing less than a change of civilization, that is to say, a change of development model, cultural paradigm, lifestyles and ways of doing things. It will be long and costly. But if radical decisions are not taken and implemented today, then the losses incurred and the survival of our children will be even more costly.
- ▶ As the OECD points out (437), the coronavirus pandemic has finally done humanity an immense service by opening its eyes to what it already knew, but did not want to see: the vicious circle of a predatory economy, generating inequalities, incapable of satisfying the needs of the entire world population and of stemming a spiral of climatic, sanitary, economic and social disasters... and of particularly acute tensions.
- ▶ To solve these problems, it is necessary to use a different approach than the one which generated those problems in the first place: a systemic approach, and no longer sectoral one, a global vision, and no longer one that is limited to one's narrow interests; a relationship based on respect of Nature, not its domination and long-term thinking instead of short-term interests.
- ▶ Regional integration, local development from a global, sustainable perspective, taking into account the critical nexuses (WEF, CMEF, TEE): the solutions are already there.
- ▶ As shown by the many avenues for action outlined in this chapter, it is not innovation which is lacking, nor the individual will of a few pioneers, but the collective will of all of us to forge ahead in the same direction in order to bring about change.

K EEP IN MIND

- ▶ The Care State (see previous chapter) must set itself the goal of achieving a transformation that is commensurate with the scope of the challenges of the Anthropocene (the climate, biodiversity and the degradation of Nature).
- ▶ Protection must extend to natural ecosystems - both on land and in the ocean - in order to work “with” and not “against” them.
- ▶ Life economy, proximity-based economy, positive economy, new financial and sanitary architectures... the ideas are there, waiting to be put into practice.
- ▶ Three nexus require special attention because they are intertwined :
 - ❖ water, energy, food.
 - ❖ city, mobility, ecological footprint.
 - ❖ tourism, employment, environment.

Determinants of the Global Health Model
(Sant rritoire 2019)



Source : <http://architecture-sante.com/>

PART III - CONCLUSION

- ▶ As it accelerates the transformations underway, the COVID-19 pandemic underscores the timeliness of building a new globality, based on slowed global growth (slowbalisation), advanced regional integration and the indigenization of the economies of emerging and developing countries.
- ▶ A new conception of the State is necessary, with a strategic emphasis on health, food, digitalization and employment. The Care State should be concerned not only with the well-being of citizens, but also with that of Nature's ecosystems.
- ▶ From now on, public policies must abandon the silo approach in favor of a cross-cutting approach, based on the nexus concept.



G

ENERAL CONCLUSION

- ▶ The outbreak of the health crisis, at the end of 2019, has surprised the world by its magnitude and the swiftness of its spread. An unprecedented historical event, the pandemic has compelled states to take drastic measures to stem its spread. This has turned the health crisis into a multi-faceted crisis, affecting all aspects of life - for countries and citizens alike.
- ▶ This situation seems to bring together the ingredients of important transformations and disruptions which will take place in the future on the geopolitical, political, economic, social, societal and environmental levels. It makes a major paradigm shift necessary since tomorrow's world will inevitably be different from today's.
- ▶ Thus, the various forces of change that had emerged in recent years began to crystallize under the impact of the pandemic. During the crisis, the obvious limitations of international institutions (the United Nations, the World Health Organization, the European Union) and the inability of China and the United States to take on global leadership, have given rise to the expression of a powerful aspiration for a new globalization, one that is ecological, democratic and less inequitable - one that will put an end both to a neo-liberal capitalism that has grown wild, and to the irresponsible exploitation of the planet.
- ▶ The new vision of the world that is emerging calls for a systemic response that would put Man at the heart of development, reconsider the relationship between Man and Nature, deal with the exponential effects of acceleration of disruptive technologies, and ensure an articulation between the global and the local, within the framework of planetarization.
- ▶ The pandemic offers the world - and Morocco in particular - the opportunity to embrace this vision and adopt a new development model in order to carry out far-reaching reforms to improve the well-being of the population and its natural environment, and to increase the resilience of the national economy to external shocks.
- ▶ This strategic report by the Royal Institute for Strategic Studies can help governments consider the potential of the crisis as a catalyst - if a cruel one - for transformation, so that they can come out of the crisis better than before and continue implementing public sector reforms to shape a more citizen-centered, sustainable future (437).

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- 5 : A demand for change that predates the crisis
- 6 : A perception of globalization: vulnerability and upheavals
- 7 : Vertebrates on the brink
- 8 : The importance of an appropriate global response to the health crisis

L IST OF FOCUS

- 1 : Magnitude of the global social crisis
- 2 : New ways of working and more...
- 3 : A critical information gap
- 4 : Kaleidoscope : images of the world after
- 5 : The security issue in Africa
- 6 : China : Taking the lead
- 7 : Globality: the new face of post-COVID globalization ?
- 8 : Morocco's world crafts : the the Agribusiness ?
- 9 : Plural digitalization
- 10 : What acceleration of digitalization in Morocco ?
- 11 : Social networks in Morocco: multiple challenges to be addressed
- 12 : What transformations in post-COVID Moroccan society ?
- 13 : Post-COVID macroeconomics
- 14 : What position for Morocco at the global and African levels ?
- 15 : Re-thinking Africa's development
- 16 : Morocco: Making Moroccan economy endogenous
- 17 : Reduce Morocco's dependence on foreign strategic resources
- 18 : The Water-Energy-Food Nexus at the global level
- 19 : The Water-Energy-Agriculture-Ecosystems Nexus Courses of action for Morocco
- 20 : The City-Mobility-Ecological Footprint Nexus
- 21 : The Tourism-Environment-Employment Nexus (TEE)



LIST OF DATA

- 1 : COVID-19 in the world
- 2 : COVID-19 in Morocco
- 3 : Globalization in figures
- 4 : Sustainable urbanization in figures
- 5 : Global tourism in figures
- 6 : Sustainable investments
- 7 : Mental health
- 8 : Young people
- 9 : Water in the world
- 10 : The CMEF Nexus



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LIST OF “ON MOVE”

- 1 : Morocco: The Royal Vision
- 2 : The European Green New Deal
- 3 : The pandemic: A catalyst in the North
- 3 : The pandemic: A catalyst in the South as well
- 4 : Africa: Progress on all fronts
- 5 : Taking sustainability into account in Asia
- 6 : Morocco’s Green strategy :1 – From soft to smart power
- 6 : Morocco’s green strategy :2 – (Re)-greening the country
- 7 : The Blue Economy in Morocco
- 8 : Towards a post-COVID Moroccan city
- 9 : Towards a post-COVID African city
- 10 : Sustainable tourism in Morocco

- ▶ **Alien Generation:** this phrase does not refer only to digital natives, who learned to click before learning to read, write and count; it refers to a whole section of the world's population - young and old - whose mindset naturally leads them towards a freer and more respectful world, a more positive economy, a healthier planet. They naturally activate the levers of sustainable development as well as the blue, positive, solidarity, x.0 economy... IRES. 2018 Strategic Report. Towards Africa's autonomous development.
- ▶ **Anthropocene:** the term was proposed in 2000 by Josef CRUTZEN and Eugene STORMER to define the current geological epoch, which is characterized by the major and increasing impact of human activities on the earth and the atmosphere, at all levels, including on a global scale. Both researchers consider the end of the 18th century as the starting date of this new era, a period which coincided with the first observations of the impact of human activities on the environment and with the beginning of the industrial revolution. CRUTZEN, Josef; STOERMER, Eugene. The «Anthropocene», Global Change Newsletter n° 41, 2000, pp. 17-18
- ▶ **Anti-speciesism:** this concept is inextricably linked to that of speciesism. It is developed in reference and by analogy to the notions of racism. The term refers to any kind of discrimination based on criteria relating to one's belonging to a given biological species. CARRIE, Fabien. Anti-speciesism, Encyclopædia Universalis [online], accessed on January 22, 2021: <https://www.universalis.fr/encyclopedie/antispecisme/>
- ▶ **Automation:** automation, robotization and digitalization are all technological innovations which, given their nature and spread, are profoundly changing the modes of production, consumption and exchange of goods and services, sometimes to the point of disrupting them. Over and beyond the production system, the widespread nature of these innovations is also leading to profound changes in labor relations and social organization. FRANCE STRATEGIE. Conseil d'orientation pour l'emploi. Automation, digitalization and employment, January 2017, p. 192 p: <https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/coe-rapport-tome-1-automatisation-numerisation-emploi-janvier-2017.pdf> BECK, Ulrich. La société du risque - Sur la voie d'une autre modernité, Flammarion, p. 521
- ▶ **Biactive couples:** refers to households in which both spouses are working. CUVILLIEZ. Julia (2013), INSEE Administrator, "Couples biactifs un challenge quotidien" in ENSAEALUMNI https://www.ensae.org/global/gene/link.php?doc_id=1221&fg=1
- ▶ **Blockchain:** is a secure, distributed ledger that contains a record of all exchanges since its creation. It is shared among the various users, called nodes, without any third party or central authority. This makes it possible for everyone to access the transactions. Each transaction is recorded within blocks, and each block is linked to the previous one. Block transactions are immutable: in order to change any one of them, it is necessary to modify all the validated blocks. Blockchain is a peer-to-peer system whose reliability, in the absence of a central authority, depends on the number of its users and their willingness to preserve the system. IRES 2019 Strategic Report. The new development model and global systemic issues, 2019/2020, Box 2: The blockchain, p. 36.
- ▶ **Burnout:** or work-related exhaustion; it is a syndrome resulting from chronic stress at work which has not been properly managed. Cambridge Dictionary <https://dictionary.cambridge.org/fr/dictionnaire/anglais/wake-up-call>

L EXICON (2)

- ▶ **Caremongering:** originally, it was a social, media-driven movement to help those affected by COVID-19. It then spread to include any form of organized altruism, thus becoming a kind of antidote to the social repercussions of the pandemic. It is the opposite of scaremongering. GOVERNMENT OF CANADA. Glossary on the COVID-19 pandemic, version of 11 June 2020 <https://www.btb.termiumplus.gc.ca/publications/covid19-eng.htm/>
- ▶ **Click and mortar:** refers to a traditional economic actor, usually involved in distribution, who engages in online operations without abandoning face-to-face activity. DIGITAL DEFINITIONS. *Digital lexicon, glossaries, illustrated dictionary* <https://definitions-digital.com/marketing/click-and-mortar>
- ▶ **Coalition for Epidemic Preparedness Innovations (CEPI)** is a foundation which receives donations from governments, charitable organizations and civil society organizations. It was created to fund independent research projects to develop vaccines against epidemics caused by emerging infectious agents. It is working on the following infectious agents: MERS-CoV and SARS-CoV-2 coronaviruses, Nipah virus, Lassa virus, Rift Valley fever virus and chikungunya virus. CEPI statutes provide that its investments should lead to fair and equitable access to the vaccines needed to control the outbreak of pandemics. <https://cepi.net/>
- ▶ **Collapsology:** a recent school of thought that studies the risks of collapse of industrial civilization and what might happen to current human societies. It involves a trans-disciplinary exercise for studying the collapse of our industrial civilization and what could succeed it, based on the two cognitive modes of reason and intuition, and on recognized scientific works. SERVIGNE, Pablo and STEVENS, Raphaël. *Comment tout peut s'effondrer : petit manuel de collapsologie à l'usage des générations présentes*, Paris, Ed. du Seuil, 2015, p. 301
- ▶ **Commons:** they concern new forms of sharing and distribution of the attributes of property rights (in the form of rights of access, use, extraction or exploitation). CORIAT, Benjamin et al. *Return of the commons: the crisis of proprietary ideology. Les liens qui libèrent*, 2015, p. 297
- ▶ **Convivialism:** the art of living together in order to take proper care of Nature and of humans. INTERNATIONAL CONVIVIALISM. *The Second Convivialist Manifesto: Towards a Post-Neoliberal World*, Actes Sud, February 2020, p. 144
- ▶ **Coronavirus, or COVID-19:** Coronaviruses (CoVs) are a large family of viruses that can cause everything from the common cold to more serious diseases, such as the Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). A new virus of the Coronaviridae family was discovered in the city of Wuhan, China. It was initially called 2019-nCoV and is now referred to as SARS-CoV-2. The disease associated with it is COVID-19. THE WORLD HEALTH ORGANIZATION (WHO), <http://www.emro.who.int/fr/health-topics/corona-virus/about-covid-19.html>
- ▶ **Crisis factor:** an existing event or trend whose development could lead to a crisis. PORTAL, Thierry. «Avant-propos», in: Thierry Portal ed., *Crises et facteur humain. Les nouvelles frontières mentales des crises*. Louvain-la-Neuve, De Boeck Supérieur, «Crisis», 2009, pp. 13-31. DOI: 10.3917/dbu.portal.2009.01.0013. <https://www.cairn.info/crises-et-facteur-humain--9782804117849-page-13.htm>

- ▶ **Deep Learning** is a type of artificial intelligence derived from machine learning, in which the machine is capable of learning by itself, unlike programming, where it simply executes predetermined instructions to the letter. IRES. 2019 Strategic Report. The new development model and global systemic issues, 2019/2020; DELUZARCHE, Céline. Deep Learning: What is it? in Futura Tech <https://www.futura-sciences.com/tech/definitions/intelligence-artificielle-deep-learning-17262/>
- ▶ **Deepfake**: a type of artificial intelligence (and the resulting video content) used to create convincing image, audio and video fakes. <https://la-rem.eu/2019/11/deepfake/>
- ▶ **Deglobalization**: a concept developed by Walden BELLO, who believes that neoliberal globalization appeared in the 1980s and damaged the economies of Southern countries, which were based mainly on exports without developing their domestic markets. WALDEN, Bello. Deglobalization, ideas for a New World Economy, Zed Books Ltd; New Updated edition (30June 2004), p. 162
- ▶ **Dematerialization**: the replacement of a paper document by an electronic one. CEGID and Esker. White paper : Tout processus métier a sa dématérialisation, quelle est la vôtre ? 2010, p. 47 https://www.celge.fr/wp-content/uploads/2015/01/livre_blanc_dematerialisation.pdf
- ▶ **Design**: an overall plan, with specifications, meant to help achieve a global vision. GUIDOT, Raymond. Histoire du design de 1940 à nos jours, Hazan, 2014, p. 395
- ▶ **Ecomobility**: the prefix “eco” can be understood as meaning ecological, economic or economical. Ecomobility is structured along a certain hierarchy, from the most eco-mobile to the least eco-mobile: walking, human-powered vehicles (HPVs such as bicycles and the like, such as velomobiles), public transport and carpooling. Ministry of Ecology, Energy, Sustainable Development and the Sea http://www.cdu.urbanisme.equipement.gouv.fr/IMG/pdf/texte-synthese-ville-mobilite-durables_cle55aca3.pdf
- ▶ **Emerging Markets and Developing Economies (EMDEs)**: the phrase was first used in 1981 by Antoine VAN AGTMAEL, to refer to “developing countries offering opportunities for investors”. Emerging markets refer to developing countries that are achieving strong economic growth. DELANNOY, Sylvia. Géopolitique des pays émergents : Ils changent le monde, Paris/Grenoble, PUF, 2012, p. 178
- ▶ **Endogenization**: in economics, it refers to the action of developing something domestically. WOLDRIDGE, Jeffrey M. Introductory Econometrics: A Modern Approach (Five ed.). Australia: South-Western p. 862 https://economics.ut.ac.ir/documents/3030266/14100645/Jeffrey_M._Wooldridge_Introductory_Econometrics_A_Modern_Approach__2012.pdf
- ▶ **Enoughism**: it is a theory which emphasizes less spending and more restrictions on buying. It is the opposite of consumerism. NAISH, John. Enough: Breaking Free of the World of More, Hodder & Stoughton, 2008, p. 289
- ▶ **Epidemics**: An epidemic occurs when there is an abnormal increase in the number of cases of an infectious disease, which exists in an endemic state, in a given region or population. THE INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES (IFRC): <https://www.ifrc.org/fr/introduction/gestion-de-catastrophes/catastrophes/typologie-des-catastrophes/biological-hazards-epidemics/>

L EXICON (4)

- ▶ **Epizootics:** an epizootic is a disease that suddenly affects a large number of animals in a given region. It is analogous to an epidemic in humans. ENCYCLOPAEDIA UNIVERSALIS: <https://www.universalis.fr/dictionnaire/epizootie/>
- ▶ **ESG Scores:** ESG criteria (Environmental, Social and Corporate Governance) were introduced by John ELKINGTON. They refer to the three main dimensions to be taken into account in evaluating a company to measure its sustainability and its socially responsible management with respect to the environment and its stakeholders (employees, partners, subcontractors and customers). ELKINGTON, John. Cannibals With Forks: The Triple Bottom Line of 21st Century Business. *Journal of Business Ethics* 23, 229-231 (2000). <https://doi.org/10.1023/A:1006129603978>
- ▶ **Existential risk:** a risk whose unfavorable outcome would either extinguish Earth-originating intelligent life or cause the permanent and drastic destruction of its potential.” BOSTROM, Nick. Existential Risks, *Journal of Evolution and Technology*, Vol. 9, No. 1 (2002), pp. 1-30.
- ▶ **Food belt:** a process that consists in revitalizing the local economy around cities and, in particular, developing local food chains for sustainable or even organic agriculture at fair prices. POUR LA SOLIDARITE. Les ceintures alimentaires, une ambition à la fois économique et politique, 4 June 2018
- ▶ **Foreign Direct Investment (FDI):** it is an investment made by a resident entity of one economy with a view to obtaining a lasting interest in an enterprise that is resident in another economy. OECD (2011), “FDI Flows and Stocks,” OECD Factbook 2010: Economic, Environmental and Social Statistics, OECD Publishing, Paris. <https://doi.org/10.1787/factbook-2010-28-fr>
- ▶ **Fossil fuels:** oil, gas and coal. These energy types are derived from rocks formed by the remains of plants fossilized over millions of years. Their combustion generates large quantities of carbon in the form of CO2 emissions. FOSSIL ENERGIES. <http://www.energiefossile.com/>
- ▶ **Freelancing:** describes self-employed workers who do not necessarily have a business, a fixed asset license or a license to practice a regulated profession. They are generally highly skilled workers: consultants, designers or computer developers who choose to be self-employed, without hiring others. OUI SHARE. Study on freelancing in France 2017, *Freelances et fières de l’être : Portrait d’une nouvelle catégorie de travailleurs*, 2017, p. 27
- ▶ **GAFAM:** The acronym GAFAM refers to four of the most powerful internet companies in the world, namely Google, Apple, Facebook and Amazon. These firms wield considerable economic and financial power. GAFAM represent the economy of the beginning of the 21st century and embody the passage to the digital era. IRES. 2019 Strategic Report. The new development model and global systemic issues, 2019/2020; *Le dico du commerce international*
- ▶ **GIG economy:** means, literally, the economy of small jobs or tasks. It is a free market system in which people work in temporary jobs and perform separate tasks. In this system, businesses hire independent workers for short-term tasks. IRES. 2019 Strategic Report. The New Development Model and Global Systemic Issues, 2019/2020. CAMBRIDGE DICTIONARY: <https://dictionary.cambridge.org>; <https://dictionary.cambridge.org/fr/dictionnaire/anglais/gig-economy>
- ▶ **Global cities:** the phrase was introduced by the American sociologist and economist Saskia SASSEN (1991) (“villes mondiales” in French). This term refers to metropolitan areas at the top level of the urban hierarchy on a global scale. These are places where the main corporate powers and the global economy are concentrated. SASSEN, Saskia. *The Global city: New York, London, Tokyo*, Princeton University press, 1991, republished in 2001 (translated into French in 1996 by La découverte).

- ▶ **Globalization:** a process of market integration resulting from the liberalization of trade, greater competition and the impact of information and communication technology on a planetary scale. Globalization could be defined as the extension on a global scale of issues that were previously limited to regions or nations. United Nations Educational, Scientific and Cultural Organization Glossary: <https://wayback.archive-it.org/10611/20171122225139/http://www.unesco.org/new/fr/social-and-human-sciences/themes/international-migration/glossary/globalisation/>
- ▶ **Great Lockdown :** the term was used on 14 April 2020 by Gita GOPINATH, economist at the International Monetary Fund, to describe the coronavirus crisis in a way that is similar to the “Great Depression” of the 1930s and the great recession of the 2010s (6). INTERNATIONAL MONETARY FUND: <https://www.imf.org/fr/News/Articles/2020/04/14/blog-weo-the-great-lockdown-worst-economic-downturn-since-the-great-depression>
- ▶ **Greenwashing** is a commercial practice that consists in using environmental arguments, often to sell products that are not environment-friendly, in order to give a misleading image of being environmentally responsible. FUTURA PLANETE. Greenwashing: <https://www.futura-sciences.com/planete/definitions/developpement-durable-greenwashing-6026/>
- ▶ **Herd immunity:** the percentage of a given population that needs to be immune/protected against an infection at which an infected individual introduced into that population would transmit the pathogen to fewer than one person on average, effectively putting an end to the epidemic as the pathogen encounters protected individuals. Herd immunity can be achieved by natural infection or vaccination. INSTITUT PASTEUR: <https://www.pasteur.fr/fr/espace-presse/documents-presse/qu-est-ce-que-immunite-collective>
- ▶ **Human Development Index (HDI):** a composite index calculated each year by the United Nations Development Program to assess the level of a country’s development based not on strictly economic data, but on the quality of life of the citizens. The HDI is based on three factors: life expectancy, education level and gross national income per capita. FRENCH REPUBLIC. Vie publique: Qu’est-ce que l’indice de développement humain et autres indices ? <https://www.vie-publique.fr/fiches/274930-quest-ce-que-lindice-de-developpement-humain-idh-et-autres-indices>
- ▶ **Hyperglobalization:** according to Arvind SUBRAMANIAN and Martin KESSLER, the world economy has entered an era of “hyperglobalization”. Between 1980 and 2011, the volume of goods traded on a global scale increased fourfold, with world trade growing almost twice as fast as production each year. SUBRAMANIAN, Arvind and KESSLER. Martin, The Hyperglobalization of Trade and its Future (July 24, 2013). Peterson Institute for International Economics Working Paper No. 13-6, Available at SSRN: <https://ssrn.com/abstract=2297994> or <http://dx.doi.org/10.2139/ssrn.2297994>
- ▶ **Infodemic:** an overabundance of information, both online and offline. It is characterized by deliberate attempts to spread misinformation in order to undermine public health response and promote the goals of certain groups or individuals. WORLD HEALTH ORGANIZATION (WHO). Managing the COVID-19 infodemic: promoting healthy behavior and mitigating the harmful effects of false or misleading information <https://www.who.int/fr/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>

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EXICON (6)

- ▶ **Informal sector** : a sector which is broadly characterized as comprising production units that operate on a small scale and at a low level of organization, with little or no division between labour and capital as factors of production, and with the primary objective of generating income and employment for the persons concerned; operationally, the sector is defined on a country specific basis as the set of unincorporated enterprises owned by households which produce at least some products for the market but which either have less than a specified number of employees and/or are not registered under national legislation referring, for example, to tax or social security obligations, or regulatory acts. OECD, The System of National Accounts, 1993 - Glossary, 2000.
- ▶ **Learning crisis**: significant gaps in the quality and quantity of schooling. WORLD BANK GROUP. World development Report 2018, learning to realize education's promise, p. 239 <https://www.worldbank.org/en/news/press-release/2017/09/26/world-bank-warns-of-learning-crisis-in-global-education>
- ▶ **Learning poverty**: the inability to read and understand a simple text by age 10. WORLD BANK GROUP. Learning Poverty, October 15, 2019: <https://www.worldbank.org/en/topic/education/brief/learning-poverty#:~:text=%20Learning%20Poverty%20%201%20%C2%B7%20A%20literacy,gaps%20and%20continued%20action-oriented%20research%20and...%20More%20>
- ▶ **Low-tech**: a heterogeneous set of techniques, uses and alternative, local and participatory modes of operation, based on saving resources. DIVAL, Denis & TASTEVIN, Philippe. Low tech ? Wild tech!”, Editions de l'EHESS, 2017, p. 285
- ▶ **Machine learning**: a branch of artificial intelligence using algorithms in which the process is equipped with a learning system. BACHELOT, B. B. Glossaires, Environnement digital, Technologies digitales, in Définitions marketing, 2019 : <https://www.definitions-marketing.com/definition/machine-learning/#:~:text=Machine%20learning.%20%C3%89written%20by%20B.%20Bathelot%2C%20on%2022%2F12%2F2019.,which%20the%20process%20is%20dot%20%C3%A9%20d%27a%20syst%20%C3%A8me%20d%27> learning
- ▶ **Major global risk**: the phrase was introduced by several authors at the end of the 20th century. In 2008, it was spelled out by the philosopher Nick BOSTROM. It is a risk of major intensity affecting a significant part of humanity. BECK, Ulrich. Risk Society – Towards a New Modernity, Flammarion, p. 521
- ▶ **Microgrids**: these are communicating, interactive and smart electrical networks. This new generation of networks aims to produce and store energy locally. Microgrids contribute to the energy transition, providing practical and accessible solutions to improve electric power reliability, supply resilience, access to energy, energy independence, green and reliable energy, energy cost optimization, energy flexibility and the ability to participate in network service programs. BOUTIN, Véronique et al. Microgrids : comment contribuent-ils à la transition énergétique? In Encyclopedia of Energy, May 28, 2018 <https://www.encycopedie-energie.org/microgrids-comment-contribuent-ils-a-la-transition-energetique/>
- ▶ **MRO**: an acronym that stands for maintenance, repair and operations. It is used to describe the series of operations and activities associated with the maintenance of a plant or facility that may include the physical maintenance of the structure or building. It refers to the equipment that an organization uses to create an end product. Source: CAREY, Helen. What is MRO and What Does it Stand For? A Brief Guide to Maintenance, Repair, and Operations , In THOMAS FOR INDUSTRY : <https://www.thomasnet.com/articles/plant-facility-equipment/what-is-mro/>

- ▶ **Natural Language Processing (NLP):** a technology which allows machines to understand human language through artificial intelligence. BASTIEN, L. Traitement naturel du langage : tout savoir sur le Natural Language Processing, In Le BigData.fr, 2 August 2019 : <https://www.lebigdata.fr/traitement-naturel-du-langage-nlp-definition>
- ▶ **Neoliberal:** the neoliberal doctrine advocates a reduced role of the State and the development of the market in all areas. It asserts the supremacy of the economy and the market over human values. Competitiveness and profitability are the key words of the current thinking. Neoliberalism determines not just the economy, but also all social activities, to the point of becoming “a certain existential norm in western societies (...). This norm enjoins everyone to live in a world of generalized competition (...); it even transforms the individual, now called on to conceive and conduct him- or herself as an enterprise”. ARDOT, Pierre; LAVAL Christian. La nouvelle raison du monde : Essai sur la société néolibérale, La Découverte Poche / Sciences humaines et sociales n°325, 2010, p. 504
- ▶ **Neo-nomadism:** the regular movement, for short periods of time, of populations or individuals who have a fixed place of residence, but who, voluntarily or involuntarily, practice significant mobility, between several cities, regions or countries. For the neo-nomad, travel is an extension of his or her habitat: The neo-nomad is equipped with tools and means to feel “at home” even while traveling. ABBAS, Yasmine. Le néo-nomadisme : mobilités, partage, transformations identitaires et urbaines, Paris : FYP Editions, 2011, p. 144
- ▶ **Neuromorphic computing:** a computer whose components emulate the functions of the human brain. FULTON, Scott. Qu'est-ce que l'ingénierie neuromorphique et pourquoi elle déclenche une révolution (What is neuromorphic engineering and why is it sparking a revolution), 11 February 2019: <https://www.zdnet.fr/actualites/qu-est-ce-que-l-ingenierie-neuromorphique-et-pourquoi-elle-declenche-une-revolution-39880479.htm>
- ▶ **Nexus** a complex set of inter-related elements. THE FRENCH ENCYCLOPEDIA. Nexus : <https://www.encyclopédie.fr/definition/nexus>
- ▶ **Nolife:** an Anglo-Saxon term referring to individuals whose time spent on professional and/or personal activities is greater than the time spent interacting with other people. In the 2000s, with the development of virtual worlds such as Second Life, Nolife referred to people who were cut off from the outside world and who spent more than 12 hours a day in virtual worlds through an avatar, rather than in “real” life. E-MARKETING GLOSSARY: <https://www.e-marketing.fr/Definitions-Glossaire/nolife-242594.htm>
- ▶ **Planetary health:** a concept developed by the Rockefeller Foundation and the Lancet, following a call by the British scientific journal, the Lancet, to initiate a movement for planetary health whose objective is to transform the field of public health. In this regard, the Rockefeller Foundation, together with the Lancet, created the Rockefeller Foundation - Lancet Commission on planetary health. The concept of planetary health consists in seeking innovative solutions that promote global human sustainability and environmental sustainability by mobilizing all sectors of the economy, energy, agriculture, water and health. The concept of global health was declared in 2015 by Judith Rodin, President of the Rockefeller Foundation, as a new discipline of global health. WHITMEE Sarah; HAINES Andy et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation-Lancet Commission on planetary health, in THE LANCET, 15 July 2015 [https://doi.org/10.1016/S0140-6736\(15\)60901-1](https://doi.org/10.1016/S0140-6736(15)60901-1) Horton, Richard et al “From public to planetary health: a manifesto,” The Lancet, vol. 383, no. 9920, March 6, 2014, p. 847, [https://doi.org/10.1016/S0140-6736\(14\)60409-8](https://doi.org/10.1016/S0140-6736(14)60409-8) RODIN, Judith. Planetary Health: A New Discipline in Global Health, July 16, 2015: <https://www.rockefellerfoundation.org/blog/planetary-health-a-new-discipline-in-global-health/>

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EXICON (8)

- ▶ **Planetarization:** the combination of the local and the global as part of a new “glocalization” process. It consists in reconciling the interests of humanity and those of the planet (biosphere) thanks to an awareness of the vital interdependence between them. IRES. Strategic Report 2019. The new development model and global systemic issues, 2019/2020.
- ▶ **Predictive analytics:** it refers to a series of analytical and statistical techniques for predicting future actions or behavior. GUTIERRE. Daniel D, Inside BIGDATA Guide to Predictive Analytics, inside big data, p.11 <https://www.celge.fr/wp-content/uploads/2015/12/guide-analyse-prédictive.pdf>
- ▶ **Prosumer:** the term was first used by the sociologist Alvin TOFFLER. It refers to a person who both consumes and produces. TOFFLET, Alvin. The Third Wave, New York, William Morrow, 1980, p. 544
- ▶ **Quantitative easing:** a phrase used to describe a particular monetary policy instrument available to central banks to impact the cost of credit and thus influence inflation and growth. In addition to the traditional (so-called conventional) tools, central banks can change the quantity of money in circulation by using “unconventional” means. Quantitative easing is one of these tools, through which they massively buy assets from banks. BANQUE DE FRANCE. ABC de l'économie, Quantitative easing: <https://abc-economie.banque-france.fr/quantitative-easing>; TISCHER, Johannes. Quantitative easing, portfolio rebalancing and credit growth: micro evidence from Germany, In Deutsche Bundesbank No 20/2018, p. 56: <https://www.econstor.eu/bitstream/10419/180673/1/1027069444.pdf>
- ▶ **Risk:** an event that could possibly occur. BECK, Ulrich. Risk Society – Towards a New Modernity. Flammarion, p. 521
- ▶ **Risk mapping:** a dynamic process of risk identification and assessment that provides a synthetic and visual representation of risks. As such, it is a tool for highlighting the risks to be addressed on a priority basis. INSTITUT FRANÇAIS DE L'AUDIT ET DU CONTROLE INTERNE (IFACI). De la cartographie des risques au plan d'audit, Paris, 2013, p. 71 <https://www.transition-europe.eu/fr/event/les-ceintures-alimentaires-une-ambition-la-fois-economique-et-politique>
- ▶ **Rogue states:** according to Antony LAKE, these are states that attempt to acquire weapons of mass destruction, support terrorist groups, abuse their population or behave inappropriately in international relations. BONIFACE, Pascal. “Qui sont les « Etats voyous ? ». Institut de Relations Internationales et Stratégiques (IRIS), 22 September 2017, <https://www.iris-france.org/99203-qui-sont-les-etats-voyous/>
- ▶ **Shared economy or sharing economy:** this form of economy emphasizes the sharing of underutilized assets - whether monetized or not - to improve efficiency and sustainability while contributing to community building. IRES. 2019 Strategic Report. The new development model and global systemic issues, 2019/2020; WORLD ECONOMIC FORUM. What is the sharing economy?” 21 December. 2017 <https://fr.weforum.org/agenda/2017/12/qu-est-ce-que-leconomie-du-partage>
- ▶ **Slowbalization:** the continued integration of the world economy through trade and financial flows, but at a much slower pace than the globalization witnessed in the pre-2010s. FEFFER, John. Slowbalization: Will the slowing global economy be a boon or bane? in Business standard, Special on Coronavirus, August 21, 2019: https://www.business-standard.com/article/international/slowbalisation-will-the-slowng-global-economy-be-a-boon-or-bane-119082100206_1.html

- ▶ **Smart city:** a 'smart city' is a data-driven city. In this sense, "big data" is the essential tool that enables the emergence of true smart cities, structured by proper knowledge of the city updated in real time and a form of permanent ubiquity. The smart city is, above all, a digital city, but also one that makes it possible to combine digital technology and the environment. Institut National de la Recherche Scientifique (INRS), Centre - Urbanisation Culture Société. LA VILLE INTELLIGENTE Origine, définitions, forces et limites d'une expression polysémique, January 2017, p. 37 <http://espace.inrs.ca/id/eprint/4917/1/Rapport-LaVilleIntelligente.pdf>
- ▶ **Smart power:** an approach which emphasizes the need for a strong military, but also for alliances, partnerships, and institutions at all levels to expand American influence and establish the legitimacy of American power. CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES. CSIS Commission on Smart Power, A Smarter, More Secure America, 2007, p. 79 https://csis-website-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/media/csis/pubs/071106_csissmartpowerreport.pdf
- ▶ **Social and Solidarity Economy (SSE):** it refers to the economic and social activities organized within the framework of formal, independent structures or groupings of natural or legal persons that have autonomous, democratic and participatory management and that pursue collective and societal purposes. ECONOMIC, SOCIAL AND ENVIRONMENTAL COUNCIL (EESC). "The Social and Solidarity Economy: a lever for inclusive growth", 2015, p. 129 <http://www.cese.ma/Pages/Auto-saisines/AS-19-2015-economie-sociale-et-solidaire.aspx>
- ▶ **Soft mobility:** the expression first appeared when the debate on travel focused on the nuisances generated for city dwellers - soft mobility referring to the means that minimize these nuisances. They refer primarily to non-motorized mobility. DEMANDE, Julien. Mobilité : active, douce, alternative ou durable, 2018 halshs-02274128: <https://halshs.archives-ouvertes.fr/halshs02274128/document>
- ▶ **Soft power:** the ability of a state to obtain what it wants from another state without the latter realizing it (Joseph NYE). It refers to a state's ability to influence and exert attraction. NYE. Joseph, "The Future of Power," Public Affairs, 2011; p. 320
- ▶ **Subsidiarity:** a principle which was introduced into European law by the Maastricht Treaty (1992) and which was enshrined in the Lisbon Treaty (2007) as a fundamental tenet of the European Union, alongside the principles of conferral and proportionality (Article 5). It was designed to bring decision-making centers closer to citizens and avoid the remoteness of the centers of power. DESSOL, Chantal Million. L'Etat subsidiaire. Ingérence et non-ingérence de l'Etat : le principe de subsidiarité aux fondements de l'histoire européenne, L'Harmattan, Paris, PUF, 2010, p. 232
- ▶ **Sudden infant death syndrome (SIDS):** the unexplained death, usually during sleep, of a seemingly healthy baby less than a year old. MayoClinic.org: <https://www.mayoclinic.org/diseases-conditions/sudden-infant-death-syndrome/symptoms-causes/syc-20352800>
- ▶ **Survivalism:** survivalists embrace a culture of anticipation, which is a very contemporary notion. Survivalism is characterized by the anticipation of things that have not happened yet and preparing for the possibility of a catastrophe related to either global warming or the outbreak of a global pandemic. VIDAL, Bertrand. Survivalisme, êtes-vous prêt pour la fin du monde? Edition Arkhé, 2019, p. 192

L EXICON (10)

- ▶ **Technology readiness:** method for estimating the maturity of a technology with a view to introducing it in the market. CHERY, Isabelle. Technology Readiness ou maturité technologique: qu'est-ce c'est? 2019: <https://www.getinlabs.fr/blog/technology-readiness-ou-maturite-technologique-quest-ce#:~:text>
- ▶ **Telemigrant:** a skilled freelancer in a Southern country who is able to compete with skilled employees in the North. The term was first used in the book The Globotics Upheaval. BALDWIN, Richard. The Globotics Upheaval, W&N, 2019, p. 304
- ▶ **Tocqueville's paradox:** although the situation is improving (freedom, income, greater life expectancy, ...), there is a growing dissatisfaction, and the gap with an ideal world is seen as an intolerable thing. TOCQUEVILLE, Alexis, De la démocratie en Amérique, Editions Flammarion, 2010, p. 301
- ▶ **Triple Bottom Line:** an accounting framework which incorporates three dimensions of performance: social, environmental, and financial (people, planet, and profit) into a company's balance sheet. ELKINGTON, John. Enter the Triple Bottom Line: <https://johnelkington.com/archive/TBL-elkington-chapter.pdf>
- ▶ **Ubuntu:** a Bantu concept which can be summarized as meaning "I am a human being by and for others", thus emphasizing what constitutes Humanity – a common quality of which everyone should be aware. Seen from this perspective, Ubuntu is common to all religions that advocate love for one's neighbor. It brings together all cultures, from Asia to the West via the East, around the fundamental aspiration of recognizing humanity as a means of sharing and benevolence. IRES. Strategic Report 2018. Towards Africa's autonomous development, 2018.
- ▶ **United Nations Sustainable Development Goals (SDGs):** they constitute a global call to action to eradicate poverty, protect the planet and ensure that all people live in peace and prosperity. UNITED NATIONS DEVELOPMENT AGENDA. What are the Sustainable Development Goals? <https://www.undp.org/content/undp/fr/home/sustainable-development-goals.html>
- ▶ **Urban command functions:** they include, for instance, company headquarters, national or international public facilities such as opera houses, airports, and financial activities, which are generally concentrated within large cities. PanthEon Sorbonne. Petit lexique de l'urbain <https://www.pantheonsorbonne.fr/IMG/pdf/urbain.pdf>
- ▶ **Veganism:** Donald WATSON coined the term "vegan" in 1944 from the English word vegetarian. He defines it as "a philosophy and way of living which seeks to exclude - as far as is possible and practicable - all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, (veganism) promotes the development and use of animal-free alternatives for the benefit of humans, animals, and the environment". A VEGAN WORLD. What is "veganism"? : <http://www.veganisme.fr/index.html> THE VEGAN SOCIETY : <https://www.vegansociety.com/about-us/history>
- ▶ **Virtual mobility:** a range of technology-driven activities that are aimed at facilitating or carrying out international collaborative experiences in a teaching/ learning context. EuroApprenticeship. Mobility of learners in Europe, virtual mobility: <http://www.euroapprenticeship.eu/fr/la-mobilite-virtuelle.html>
- ▶ **Voice of society:** a viewpoint shared by individuals in a community that seeks outcomes acceptable to all, advocating fair, equitable representation and respect for ethical values. PANETTA, Kasey. DNA storage, factory and farm automation and freelance customer service drive predictions for the foreseeable future. In Gartner Top 10 Strategic Predictions for 2021 and Beyond, October 21, 2020: <https://www.gartner.com/smarterwithgartner/gartner-top-10-strategic-predictions-for-2021-and-beyond/>

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- ▶ **Wake up call:** something, similar to an alarm, which alerts people that they must take action to change a situation. WORLD BANK GROUP. Learning Poverty, 15 October 2019: <https://www.worldbank.org/en/topic/education/brief/learning-poverty#:~:text=%20Learning%20Poverty%20%201%20%20C2%B7%20A%20literacy,gaps%20and%20continued%20action-oriented%20research%20and...%20More%20>
- ▶ **Welfare state :** “The notion of “welfare state” refers to all state interventions and measures in the social field which aim at guaranteeing a minimum level of wellbeing to the entire population, in particular through an comprehensive system of social protection. FRENCH REPUBLIC. Public life: The Welfare State <https://www.vie-publique.fr/parole-dexpert/262512-letat-providence>
- ▶ **Zoonotic diseases:** a group of infectious diseases naturally transmitted between animals and humans. The greatest risk for zoonotic disease transmission occurs at the human-animal interface through direct or indirect human exposure to animals, their products (e.g. meat, milk, eggs..) and/or their environment. THE WORLD HEALTH ORGANIZATION (WHO): https://www.who.int/foodsafety/areas_work/zoonose/fr/

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