



## Covid-19 pandemic: a providential warning from Nature

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### Summary

We are travelling through the infinity of the Universe on planet Earth, a spaceship with 7.8 billion passengers that can never ‘land’ anywhere, can never dock at any port to load resources or unload waste. The resources on which we passengers can count are the limited materials that make up the spaceship and the sunlight. Any damage has to be fixed and any problem has to be solved by us passengers, without disembarking. Scientists have been warning for many years that we are not guarding the planet, and sociologists warn that the enormous economic and social inequalities are becoming unsustainable. In the last few months, a dangerous and highly contagious virus, Covid-19, is circulating on the spaceship Earth. We should take it as a providential warning from Nature to move toward ecological and social sustainability.

**Keywords:** *Pandemic, Covid-19, Fossil fuels, Solar energy, Environment, Sustainability, Spiritual energies.*

### Riassunto

#### *La pandemia da Covid-19: un provvidenziale avviso dalla Natura*

Stiamo viaggiando nell’infinità dell’Universo sul pianeta Terra, un’astronave con 7,8 miliardi di passeggeri che non potrà mai ‘atterrare’ da nessuna parte e neppure fermarsi in qualche luogo per caricare risorse o scaricare rifiuti. Le risorse su cui noi passeggeri possiamo contare sono i materiali che compongono l’astronave e la luce del sole. Qualsiasi danno all’astronave deve essere riparato e qualsiasi problema deve essere risolto da noi passeggeri. Gli scienziati avvertono da molti anni che non stiamo custodendo il pianeta e i sociologi ammoniscono che le enormi disparità economiche e sociali stanno diventando insostenibili. Da alcuni mesi, un virus pericoloso e altamente contagioso, Covid-19, sta circolando sull’astronave Terra. Dovremmo prenderlo come un avvertimento da parte della Natura per avviarci verso la sostenibilità ecologica e sociale.

**Parole chiave:** *Pandemia, Covid-19, Combustibili fossili, Energia solare, Ambiente, Sostenibilità, Energie spirituali.*

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## 1 Spaceship Earth

On Christmas Eve 1968, the astronauts of the Apollo 8 spacecraft, while in orbit around the Moon, had the astonishment to contemplate the Earthrise. William Anders, the crewmember who took what is considered one of the most influential photos ever taken, commented: *“We came all this way to explore the Moon, and the most important thing is that we discovered the Earth”* ([Space Quotations, 2020](#)).

In another famous photograph taken at a much longer distance, our planet looks like a pale blue dot in the cosmic dark (Figure 1). There is no evidence of being in a privileged position in the Universe, no sign of our imagined self-importance.

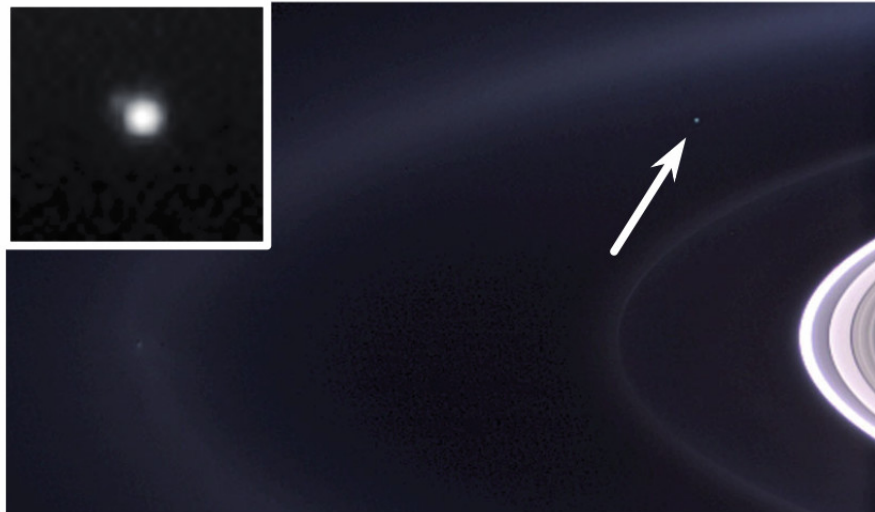


Figure 1: Photograph taken by the Cassini Orbiter spacecraft on September 15, 2006, at a distance of 1.5 billion kilometers from Earth. The dot to the upper left of Saturn’s rings, indicated by the arrow, is the Earth. Saturn was used to block the direct light from the Inset: expanded image of the Earth which shows a dim extension (the Moon). Credits: NASA.

From this and other similar photos of the Earth taken from afar you can see what our situation is: we are travelling through the infinity of the universe on a spaceship that can never ‘land’ anywhere, can never dock at any port to load resources or unload waste. The resources on which the nearly eight billion passengers can count are the materials that make up the spaceship and the sunlight. There is no hint that we can receive help from somewhere, no suggestion about places to which our species could migrate. Like it or not, spaceship Earth is the only home where we can live.

Spaceship Earth moves at the speed of 29 km/s, apparently without any destination. It does not consume its own energy to travel, but it requires a huge

amount of energy to make up for the needs of 7.8 billion passengers, who increase at a rate of about 250,000 per day (the population of a medium size town), almost 100 million per year (the population of a large nation) ([Worldometers, 2020](#)). We travel alone in the Universe, and we can only rely on the energy coming from the Sun and on the resources available on the surface or stored in the hold of our spaceship ([Armaroli and V., 2011](#)). Any damage has to be fixed and any problem has to be solved by us passengers, without disembarking.

## 2 The Covid-19 pandemic

Solving the problem by ourselves is what we are trying to do since a highly contagious virus, Covid-19, began to circulate on Earth. It has killed more than two hundred thousand people and forced billions of people to shut themselves up in the house. Waiting to fight it with a vaccine, we defend ourselves with the obnoxious weapon of social distancing. Nobody can help us.

It should be remembered, however, that for at least thirty years scientists have warned that even a greater trouble than the pandemic is going on. In fact, we do not take care of spaceship Earth, our common home. The US president Donald Trump claims that the virus was released from a Chinese laboratory either by mistake or by purpose. Scientists, however, believe that Covid-19 was since long in Nature. The appearance of new viruses that originally only infected animals, but then make the jump from animal to humans, is a well-known phenomenon (*spillover*), and this is what seems to have happened with the new coronavirus. Currently, the scientific community is trying to identify the source of the infection. For sure, our wrong approach with Nature, including unlimited use of resources, too much consumption of soil for human purpose, air pollution, degradation of the environment, and a more and more extensive use of animal products and wild food have facilitated the spillover. Edward Wilson, in his latest book, provocatively proposes to leave half the Earth to Nature if we want to live well on this planet ([Wilson, 2017](#)). Clearly, there is a connection between air pollution and virus pandemic. For example, it has been shown that a small increase in long-term exposure to PM2.5 leads to a large increase in Covid-19 death rate, with the magnitude of increase 20 times that observed for PM2.5 and all-cause mortality ([Wu et al., 2020](#)). It has been reported that droplet emission while speaking could be a significant factor driving transmission ([Anfinrud et al., 2020](#)) and that airborne transmission might also occur ([Lewis, 2020](#)).

## 3 The fossil fuel problem

Many of the Western rich countries' citizens are worried about the Covid-19 health crisis, but they never seem to have noticed the ecological and social crisis ([Balzani, 2019b](#)). They are terrified by the deaths caused by the virus, apparently ignoring that about one million people die every year in China, 650,000 in the European Union and 80,000 in Italy because of air pollution. They also seem

to ignore that the most serious threat to our planet is climate change. These problems are caused by fossil fuels, coal, oil and natural gas, used to obtain energy (BP, 2019). On Earth, every second we burn 250 tons of coal, 1000 barrels of oil and 105,000 cubic meters of gas. Every second! The use of fossil fuels causes the release into the atmosphere of huge quantities of carbon dioxide (1200 tons per second) and many polluting substances. The huge amount of carbon dioxide, CO<sub>2</sub>, a gas that has no color and therefore is invisible, wraps the planet like a blanket that allows the sun's rays to reach the ground, but prevents, in part, the heat generated from coming out towards the outer space. It is the so-called greenhouse effect: the planet heats up. This global warming causes complex climate changes such as melting ice, rising sea levels, changes in the precipitation regime, extension of desert areas. The 'breakdowns' caused by the climate are already very evident and scientists warn that if measures are not rapidly implemented to reduce the consumption of fossil fuels to zero, the situation will get worse and faster and will have catastrophic results for the next generations (NOAA, 2019). To avoid pollution and climate change we will have to use sunlight and the force of wind and rain as energy sources (Balzani, 2019b, 2020b; REN21, 2019).

#### **4 Uniqueness of our situation**

All the above mentioned problems, i.e. limited resources, pollution, climate change, Covid-19 pandemic and many others, apparently concern only this small planet of the solar system, the Earth. It should be pointed out that they are not intrinsic problems of the planet; they, instead, have been generated by us, we who are the result of the strangest and most mysterious thing, probably unique in the whole universe: the fact that on Earth, about 3.5 billion years ago, life developed and then the evolution of life led to us! Thinking about it, you have to be breathless: the Earth, this insignificant part of a Universe that includes one hundred thousand billion billion stars, the Earth, this small fragment of matter, seems to be the only place in which life has evolved to create beings endowed with thought and conscience. It is undoubtedly our duty and it is part of our dignity to guard this spaceship that has been assigned to us.

#### **5 Opportunity of the Covid-19 crisis**

Currently, we have to face a crisis that involves three interconnected features: ecological, social and health. Experience shows that any crisis can be exploited as an opportunity to make progress. Therefore, we should not give up hope. We should take Covid-19 as a warning from Nature. Before the pandemic, the situation was unsustainable from both the ecological and social viewpoints. Too much consumption of the limited resources of our planet and too many social inequalities among countries and within each country. In getting out of the pandemic, we must be careful not to return to the situation that was before.

After having enjoyed the abundant and low-priced energy of fossil fuels for more than a century, we now understand we must stop using them. After being so excited about the western type economic growth, we are realizing that our development model, consumerism, is unsustainable on a spaceship that cannot land anywhere. Consumerism is also socially unsustainable: it promotes competition, induces not to care about others, causes the loss of the idea of the common good, widens the gap of inequality more and more. We know that inequality means unease and may lead to revolutions and wars. These concerns are taken up by Pope Francis' admonition: *"There are not two separate crises, one environmental and another social, but a single and complex socio-environmental crisis; ... what is happening puts us in front of the urgency to proceed in a courageous cultural revolution"* (Francis (Pope), 2015).



Figure 2: Soil degradation to obtain unconventional oil: tar sands mine site in Alberta, Canada.

Such a cultural revolution should be based on three transitions that can lead us to ecological and social sustainability. Ecological sustainability requires the abandonment of fossil fuels, which are responsible for climate change, air pollution and soil degradation (see, e.g. Fig. 2), and the development of renewable energies. This transition has already started and it is possible to complete it, both technically and economically, by 2050 (NOAA, 2019). The transition will stop climate change, avoid the premature death of many people, increase the number of jobs and also bring economic benefits. It will also bring benefits from a social point of view because the poorest nations, the ones most affected by climate change, are the richest in renewable energy. The very effective technologies offered by science to use the abundant renewable energies available to us, however, find limits in the material resources necessary to implement them (Balzani, 2020b, 2019a). So we won't be able to have all the energy that would be convenient for us. The energy transition will not happen spontaneously; on the contrary, it requires a strong commitment because it is hampered by the fossil

fuel lobby, by financial speculation and by economic and political controversies.

Another transition is also necessary, which cannot be separated from the completion of the energy transition: the transition from the linear economy of disposable to the circular economy, based on a more conscious and more efficient use of resources, on a lower production of waste and their recovery to create new resources.

However, all this is still not enough because, if we want to live in peace in the 'common home', the spaceship Earth, it is absolutely necessary to reduce the inequalities that afflict humanity, both nationally and globally. We should, as Pope Francis says, "be outraged by the enormous inequalities that exist between us. We no longer notice that some drag themselves into degrading misery, while others do not even know what to do with what they have" (Francis (Pope), 2015). To reduce inequalities, a third transition must be made, integrated with the previous two: a cultural transition from consumerism to sufficiency and sobriety, which is the essential quality of any relationship with resources, with waste, with others and with oneself. Sobriety frees man from the frenzy of accumulation and makes him capable of shared enjoyment (Balzani, 2019a).

Covid-19 is a warning that nature sends us, a stimulus for us to decide to protect our common home and to reorganize society so as to make easier the life for us as well as for future generations (Balzani, 2020a).

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