



Fraternity and Social Friendship

**GRÜNE REIHE 121**

Imprint, August 2021

Editor:  
Responsibility: Missionszentrale der Franziskaner e.V.  
Matthias Maier ofm

ISSN: 1618-9264

Editorial: Albertus-Magnus-Straße 39  
53177 Bonn

Postfach 20 09 53  
53139 Bonn

Phone: +49 228 95354 – 0  
post@franziskaner-helfen.de  
<http://www.franziskaner-helfen.de>

Illustration credits cover: Digital illustration by L. Antoinette Engelbrecht-Schnür,  
© MZF

Bank details Sparkasse KölnBonn  
IBAN: DE83 3705 0198 0025 0014 47  
SWIFT-BIC: COLSDE33XXX

# CONTENT

<b>Editorial</b>		7
<b>Essays</b>		
<b><i>Fratelli tutti</i> in the shadow of the Anthropocene</b>	Wolfgang Sachs	8
<b>What development policy can learn from Pope Francis</b>	Jakob Siegel	16
<b>The encyclical <i>Fratelli tutti</i> from a theological perspective: a doctrine of fraternity</b>	Johannes B. Freyer ofm	22
<b>Projects</b>		
<b>A court ruling after granting church asylum to two women from Nigeria – A practical test for Pope Francis’ social encyclical <i>Fratelli tutti</i></b>	Katharina Ganz ofm	27
<b>Thoughts on the encyclical <i>Fratelli tutti</i> from the Central African Republic</b>	Kordian Merta ofm	33
<b>Comment</b>		
<b>A Muslim commentary on <i>Fratelli tutti</i></b>	Gönül Yerli	36

# FRATELLI TUTTI IN THE SHADOW OF THE ANTHROPOCENE

Wolfgang Sachs

Which of Pope Francis' countless appearances will posterity consider truly iconic? Probably neither his journey to the shipwrecked in Lampedusa nor his encounter with the indigenous peoples of the Amazon, although both are characteristic of the pontificate – rather, it will be his appearance in the deserted St. Peter's Square during the coronavirus pandemic. A single figure in white, alone, laboriously climbing the steps to St. Peter's Basilica, then offering the *Urbi et Orbi* blessing with the monstrosity – that image will be in the history books. This view undoubtedly thrives on contrast: the image of the Pope standing alone in the rain at nightfall in contrast to the image familiar to television viewers from all over the world where the Pope appears in St Peter's Square amidst the cheering of tens or hundreds of thousands under Bernini's colonnades. And then, in March 2020, a formidable showing of vulnerability that touched even non-believers.

However, the pandemic is obscuring awareness of another calamity. Far from the television cameras, Greta Thunberg bore unprepossessing witness to this calamity in August of 2018, holding her sign „School strike for climate“ all alone in front of the Swedish Parliament in Stockholm. She was 15 at the time, and, armed with considerable talents and stubbornness, she triggered the proverbial avalanche. At the latest since *Fridays for Future*, global warming (and the lack of resistance against it) has become a refrain all over the world. Greta's outrage before the United Nations Climate Summit („How dare you?“) generated huge media coverage, to the point where she ended up being nominated by the American magazine *Time* as „Person of the Year for 2019.“ But COVID-19 erased Greta from the collective memory. This was suppression of the

first degree, because it is already clear to all experts that the COVID-19 pandemic is only the prelude to an age of biospheric collisions arising from the shattered relationship of humankind with nature. This is also felt by the successful British author Ian McEwan: „Covid is our mass tutorial, our dress rehearsal for all the depredations as well as tragedies that the climate emergency could bring. We have had a taste of a planetary-scale disaster.“<sup>1</sup> The pandemic is a controllable tragedy, so to speak, with a few million dead to be sure, followed by vaccination on a global scale, leaving behind hardly any damage for the present generation. The collective destruction of the biosphere is a different matter. There will be no vaccination, the damage to future generations will be immeasurable, as will be the number of displaced persons and fatalities. The crisis in nature lurks behind COVID-19 and the Anthropocene looms after the pandemic. By his own admission, Pope Francis was surprised by the pandemic while writing the encyclical *Fratelli tutti*. Does the encyclical nevertheless have something to say about the natural crisis that will define the 21st century? Can the message of universal fraternity be realised at all in the shadow of the Anthropocene?

## The Anthropocene – A Concept with Abysses

Seldom does an interjection make history like this. At a 2000 conference on global change in Cuernavaca, Mexico, Paul J. Crutzen from Mainz, who had received the Nobel Prize for his work on the hole in the ozone layer, could no longer contain himself: „Stop using the word Holocene. We're not in the Holocene anymore. We're in the ... the ... the Anthropocene!“<sup>2</sup> At first there was stunned silence,

<sup>1</sup> MCEWAN (2021) - <sup>2</sup> HORN/ BERGTHALLER (2019): 8.

then during the coffee break the term began to circulate, moving initially to professional circles, then in the last decade among a wide audience, from sociology to art. What did Crutzen mean? The history of the earth has entered a new epoch, in which humankind must now be considered a geological force, comparable to volcanic eruptions and earthquakes. Human activity is shaping the Earth's surface and atmosphere on a large scale and permanently.<sup>3</sup> It ranges from global warming and its consequences for flora, fauna, and human habitats, to the sealing of the earth's surfaces and the disruption of water cycles, the rapid dwindling of biodiversity, the polluting of air, soil and water with toxic substances, a rapidly growing human population, and resources being used to raise animals for meat. As the Global Footprint Network has determined<sup>4</sup>, the Earth's biosphere is currently overloaded by a factor of 1.7, so it is no wonder that nature, both locally and globally, is groaning at the strain. In view of this epochal shift, the conventional talk of an environmental crisis has been exposed as window dressing: It is not a question of the environment, but of nature under human influence; likewise, it is not a question of a temporary crisis, but rather of a geological era. What the term Anthropocene tells us, regardless of whether historical geology is able to accept it as a classification, is a disturbing warning: unless humankind drastically reduces its ecological footprint, we will gradually see the collapse of more and more life forms as we know them in the world.

When did the Anthropocene actually begin? This question has been a subject of debate from the beginning. Archaeologists, historians of the early modern period, and sociologists have arrived at different answers, each casting human history in a different light. At first, many blamed the Industrial Revolution, which led to the plundering of fossil resources and an increase in emissions. Then some authors pointed to colonial period which led to the spread of the plantation economy and massive deforestation. This did not give archaeologists

pause, who pointed out that, with humanity shifting to living on settlements, wild nature had been ruined in favour of the domestication of plant and animal life. In contrast, no one can deny that since about 1950 there has been an immense acceleration in the exploitation of nature. The Western and later international industrial system has crushed local and global ecosystems to such an extent that human influence is apparent everywhere on earth. However, one does not have to opt for any of the theories on the genealogy of the Anthropocene: there is truth in all of them.<sup>5</sup> If the Anthropocene has been unfolding slowly only to pick up the pace in the present time, every theory has its place. In the 21st century, when planet Earth is being surveyed by satellites and its transformations are being monitored, people are becoming aware that they have become the driving force of evolution on Earth.

These human-induced changes to the planet are having a boomerang effect that could give rise to a gradual catastrophe. Never in human history have power and powerlessness been as inseparable as they are in the Anthropocene, a time when space travel and global warming, skyscrapers and species extinction, digital networking and urbanisation exist side-by-side, all caused by human attempts to control nature. In the technosphere, we are realising our power; in the biosphere, we are increasingly facing a countervailing power. It seems that the more deeply humans intervene in the Earth's system, the more we will have to deal with processes that are beyond our control. We have more power over nature and at the same time nature has more power over us.<sup>6</sup> This leads to the paradoxical situation where the people of the 21st century are torn between an enormous human power and a far-reaching loss of control.<sup>7</sup>

### *From Laudato si' to Fratelli tutti*

„We received the earth as a garden-home from the Creator,“ Pope Francis told a meeting of chief executives of the world's oil and gas giants at the

---

<sup>3</sup> CRUTZEN (2002): 23. - <sup>4</sup> <https://www.footprintnetwork.org> - <sup>5</sup> HORN/ BERGTHALLER (2019): 40. - <sup>6</sup> HAMILTON (2017): 45. - <sup>7</sup> HORN/ BERGTHALLER (2019): 190.

Vatican in June 2018, „let us not pass it on to future generations as a wilderness.“<sup>8</sup> He urged corporations to leave the fossil fuel business behind and invest in renewable energies instead. In his encyclical *Laudato si'*, the Pope spoke of the desecration of nature as well as the cry of the poor, a leitmotif for his pontificate in general. Who does not remember how, in a thoroughly self-critical manner, he moved away from the *dominium terrae* of Genesis 1? This idea suggests that humans are rulers and owners of nature, as Descartes finally postulated at the beginning of the modern era. The Pope, on the other hand, calls the earth, in the Franciscan spirit, mother and sister. He also draws attention to nature's counterpart, the technosphere. He disapproves of the imperative of cost efficiency that pervades technology and infrastructure, leaving little room for well-being, and not just that of human beings. The legendary growth in human power has remained without responsibility and foresight. Thus, *Laudato si'* is primarily about the human relationship with nature, where the relationship with the poor plays a secondary role.

In contrast, nature does not appear in the encyclical *Fratelli tutti*. The encyclical focuses entirely on seeing the relationship with others in the visionary horizon of a just and fraternal world. This stands in contrast to the „globalisation of indifference,“ as Pope Francis called it in Lampedusa, proposing instead a globalisation of fraternity. Consequently, it covers a wide range of issues, from the evils of a world closed-off from others such as the fear of migrants, the easy violation of human rights, and digital loneliness, to the principles of a hospitable world marked with human dignity, pursuit of the common good, and dialogue among cultures. So far, so good, but there is no sign of the crisis in nature. This is astonishing, since the talk of fraternity with all living beings could have been the common thread linking the two encyclicals. Nevertheless, *Fratelli tutti* tackles humankind's existential questions, with a central focus on the search going back to Cain and Abel for a society without violence and without discrimination, but instead shaped by solidarity and a

sense of community. In this way, the Pope's teaching document discusses what is happening on the front stage of history – oppression, the selfishness of the rich, migration. In contrast, the events on the backstage of history remain hidden – global warming, loss of biodiversity, urbanisation. What do these stages have in common? And what can a memorandum on the cohesion of global society contribute to the concept of the Anthropocene?

## The downfall of the imperial mode of living

However, let us turn again to the Anthropocene. The epochal term „Anthropocene“ was coined by natural scientists with the help of macroscopic instruments such as earth observation and supercomputers. It is not surprising that human reality, with its cultures and conflicts, its passions and dreams, remains out of focus. Who brought us the Anthropocene? Was it humans in the distant past or those of the modern age? Does this mean all or part of humanity? As long as this re-mains so vague, we will not know to whom we should address the political and moral implications. We need to take into account three facts: Firstly, the number of the earth's inhabitants has been increasing rapidly, from 2.5 billion in 1950 to 7.8 billion at present. Secondly, since 1950, the formation of the Anthropocene has accelerated immensely. Nature has had to serve as a mine for coal, oil, gas, metals, minerals and fresh water; it has had to serve as a site for infrastructure, urbanisation and agricultural land; and it has had to endure vapours of all kinds, such as emissions, pesticides and nitrates. The earth has been buckling under the industrial way of life. And thirdly, there is the advance of global inequality, between the haves and have-nots, between owners and the displaced, between the powerful and the powerless. Economic inequality replicates itself in ecological inequality. As a result, half of humankind is feasting on nature, while the other half is forced to make do with crumbs. Roughly speaking, the „anthropos“ in the Anthropocene is synonymous with the global domination of the haves over the have-nots within the medium of nature exploitation.

---

<sup>8</sup> POVOLEDO (2018)

Would some figures help? If we look at the world's population by income class and examine their share of CO<sub>2</sub> emissions, a huge gap emerges: In 2015, the smaller population making 50% of the world's income caused a staggering 93% of CO<sub>2</sub> emissions, while the poorer half accounted for only 7%.<sup>9</sup> What an enormous difference! If we take a look at the world map as to where the global upper and middle classes reside, the following picture emerges: of the global emissions of the middle/ high-income earners, 35.9% come from North America and Europe, 24.8% from China, 13.6% from the rest of Asia including India, 13.3% from the Middle East and Russia/ Central Asia, 3.5% from Latin America and 1.7% from Africa.<sup>10</sup> In contrast, the other half of the world's population, the one at 7%, is mostly found in India, China, Africa and Latin America. Thus, the division of the world is also reflected in climate emissions. Air travel, real estate, and steaks set the tone in the global upper class, while second-hand cars, washing machines, and air-conditioning are common in the middle class. And then there is the class of have-nots, who have to be content with standing on packed buses, malnutrition, and out-houses. Moreover, the top 10% of the income pyramid emitted about half of global emissions in 2015, while the other half of emissions were distributed among the remaining 90% of the world's population. What a huge discrepancy! Incidentally, the proportions have not changed since 1990, although emissions have increased by more than half during this period. This reflects the increasing polarisation of global society: traditional inequality between countries still exists, but has levelled out at the expense of rising inequality within countries. In the last 30 years, it was first and foremost the rising middle classes that drove up emissions in countries such as China, India, Indonesia, Russia and Turkey.

Overall, humanity's annual demand for materials, i.e., biomass, fossil resources, minerals, metals, increased from 7 tonnes per capita to 12 tonnes from 1970 to 2017.<sup>11</sup> Large-scale deforestation and

empty fishing grounds, oil platforms and gas pipelines, silver mines and open-pit lithium mining are examples of resource extractivism. And here, too, the rich take the lion's share: The material footprint (including domestic and foreign) of consumption in high-income countries is around 27 tonnes per capita, in middle-income countries 16 tonnes, and in low-income countries 2 tonnes.<sup>12</sup> Shifting the focus to transnational corporations trading in materials from the biosphere, the degree of concentration is striking: a full four corporations have an 84% share of the global pesticide market, five are 90% responsible for the palm oil market, ten corporations are mining for copper (50%) and silver (36%), ten others control 72% of oil and 51% of gas reserves.<sup>13</sup> Of course, they have their headquarters in skyscrapers, mainly in North America, Europe, China and the Middle East.

If we look back over the last 70 years, we can say that the prevailing economic model is neither fair nor sustainable. On the contrary, it fuels social polarisation and invites a collision with nature. Therefore, this model is incapable of securing the global common good. Moreover, this disastrous economic model has given rise to an imperialistic way of life.<sup>14</sup> Long rehearsed by habits and routines, cemented by law and by institutions, and exaggerated with claims and aspirations, the imperialistic way of life seeks to satisfy two requirements at one stroke: the gradual exploitation of human beings and nature and awareness of it. Often, the side effects of technology and economics accumulate to such an extent that they leave people and ecosystems on the scrap heap. Online commerce produces massive delivery traffic, dams often flood small-holder farms with water for the cities, the fashion industry often disregards the rights of working women, the housing market is far too expensive for slum dwellers, factory ships are emptying the oceans, pesticides leach the soil, energy emissions overheat the earth. Glorious achievements in technology and economics cannot be had without side-effects, which means that any attempt at

---

<sup>9</sup> KARTHA et al. (2020): 6. Other researchers arrive at similar but different figures: HUBARECK et al. (2017) wealthy 85%, the poor half 15%, Chancel, PIKETTY (2015) wealthy 87%, the poor half 13%. - <sup>10</sup> KARTHA et al. (2020): 11. - <sup>11</sup> IRP (2019): 27. - <sup>12</sup> IRP (2019): 52. - <sup>13</sup> HORN/ BERGTHALLER (2019): 190. - <sup>14</sup> BRAND/ WISSEN (2017).

containing the side-effects would level out the accumulation of money. These events are by no means unknown, but they are easily pushed out of sight, because they usually happen far away or are postponed, and, on a social level, are happening to the lower classes. A German men's outfitter doesn't have to worry that cotton in Pakistan consumes a lot of water and pesticides, and that small farmers are being ruined from buying the seeds with debt money. And this even applies to the clearly demonstrable damage, for example, from global warming leading to droughts and tropical storms or from deforestation leading to the death of plants, insects and animals. Parsed into decisions with respect to choice of technology and cost efficiency, often via long and complex supply chains, the side-effects make themselves felt. They disproportionately affect the poor of this world, but the rich cannot escape this situation either. Through the power of practical constraints, the imperialistic way of life achieves what it tries to conceal: that some are living at the expense of others.

## Ecology with a cosmopolitan intent

This much is clear when one reads his numerous messages, addresses and encyclicals: Pope Francis is not at all looking at the world from the perspective of progress and growth, but from the perspective of global inequality and the destruction of nature. This is why the Pope is promoting a concept of the world that is an alternative to both neoliberalism and statism<sup>15</sup>: fraternity. A biblical idea that came to prominence in the French Revolution, in the anti-feudal/democratic slogan *liberté, égalité, fraternité*. After 1848, it was replaced by the concept of solidarity, both by the labour movement and by Christian social teaching. A late echo can still be found in the European anthem with the Ode to Joy by Schiller, set to music by Beethoven („All men shall be brothers“).

However, the word „Geschwisterlichkeit“ (to be siblings, fraternity), which the German translation of

the encyclical likes to use, sounds rather awkward, but has an added semantic value. In comparison to „Solidarität“ (solidarity), fraternity possesses one characteristic from the outset: it establishes a relationship of kinship. Among siblings, whether they live near or far from each other, there is a certain indissoluble bond: they share the events and things of life; they are almost physically affected if one among them is not well. Furthermore, as soon as we call someone a brother or sister, even in a metaphorical sense, we profess to have common progenitors. When Francis of Assisi calls the stars, fire, water and the earth brother and sister in his *Canticle of the Sun*, he celebrates God the Father. Taken in a secular way of understanding it, this could mean making ourselves related to human and non-human beings in order to keep the family tree of life on earth green with health. Genetically, humans have much in common with other mammals; they participate, together with the animals, in the atmosphere created by plants that surrounds the earth, in the delicate layer of the biosphere, of which there is, as far as we know, no other example in the universe. So being related as siblings, fraternity, means caring for the natural foundations of life for human and non-human creatures.

„To care for the world in which we live means to care for ourselves,“ the encyclical states. „Yet we need to think of ourselves more and more as a single family dwelling in a common home. Such care does not interest those economic powers that demand quick profits.“<sup>16</sup> The hidden yet obvious, impending negative consequences of the Anthropocene affect all people, especially in the Global South, along with animal and plant life everywhere on Earth. This is especially true for the poorer quarter of the world's population, who depend on free access to natural areas for their livelihoods, for whom savannahs, forest, water, arable land and also fish, game and cattle are means of immediate subsistence. Human rights, like food, clothing, shelter, medicine and even culture, are linked to intact ecosystems in subsistence economies. This

---

<sup>15</sup> Fratelli tutti: 3. - <sup>16</sup> *ibid.* 17.



link between human rights and natural spaces is particularly close to Pope Francis' heart, which was most noticeably evident at the Amazon Synod in 2019, where he surrounded himself with indigenous people's representatives. It is obvious that he was also thinking of them when he quoted Francis of Assisi in the first section of the encyclical: „blessed all those who love their brother ,as much when he is far away from him as when he is with him.“<sup>17</sup> This is not far from a cosmopolitan programme that runs from the Stoa through the Enlightenment to the Universal Declaration of Human Rights in 1948, according to which the world is a community of people, not an ensemble of states or clans, but a community in which all are entitled to justice, just as they themselves are owed justice.<sup>18</sup>

Of course, the rights of one cannot be had without the duties of the other. In the international debate, however, we often talk about human rights, but rarely about human duties. However, how can the universality of human rights ever be secured if it is not matched by a universality of human duties? Postulating not rights but their counterpart, universal duties, was the decisive move of Immanuel Kant's ethics. As is well known, the categorical imperative is: Act according to the maxim that you would wish all other rational people to follow, as if it were a universal law. In a Kantian perspective, injustice can therefore be defined as follows: Political and economic institutions are unjust if they are founded on principles that cannot be adopted by all nations. In the biting words of the encyclical: „While one part of humanity lives in opulence, another part sees its own dignity denied, scorned or trampled upon, and its fundamental rights discarded or violated.“<sup>19</sup> A glaring example of this is the unequal distribution of natural resources. They have been hoarded by the global middle and upper classes to such an extent that the poor do not possess the resources to develop on an equal footing. Worse still, the poorer half of the world's population must not be allowed to develop on an equal footing, because otherwise the planet's limits would be completely exceeded. Thus, sche-

matically speaking, the international distribution of resources becomes a zero-sum game where winning means others lose. Both unequal and limited – therein lies an explosive power that can express itself in conflicts and, in extreme cases, in wars over resources.

There is only one way out: an orderly withdrawal from the imperialistic way of life. And that is because it is not apparent how, for example, mass motorisation, air-conditioned family homes, or high meat consumption could be made accessible to all the world's inhabitants. Frugal prosperity is the order of the day, combining an economy that conserves resources with diverse lifestyles around the world. A task that will take the better part of a century to realise, in which a democratic people's movement, a transformation in technology, and moderation in the economy and way of life will surely be indispensable. First and foremost, a smaller ecological footprint will need to be accompanied by phasing-out and new development processes. For example, fossil energy, petrochemicals and automobiles will need to be phased out as renewable energies, soft mobility systems, regenerative agriculture and the restoration of natural areas are being developed. This would be nothing less than a declaration of war against the industrial civilisation of the middle and upper classes all over the world, as equally in the US as in Uruguay, in China as in Chile. And a revolution not only against those in power, but against a way of life, real or imagined, of large parts of the world's population. It will be painful and also inspiring. It will be full of conflict, and also galvanising. In any case, it is necessary to shift our way of gazing at the world: from the poor to the rich. For seventy years, development policy has sought to improve the living standards of the poor in the name of justice – with mixed results. It is now a matter of changing the lifestyles of the wealthy. Otherwise, there will be no prospect of justice in a finite world. Without setting limits on wealth, setting limits on poverty will not succeed.

---

<sup>17</sup> Fratelli tutti: 1. - <sup>18</sup> Wuppertal Institut (2005): 137-139. - <sup>19</sup> Fratelli tutti: 23.

## Hope against all hope

It seems that there is a need to resurrect an old Christian virtue that is indispensable in view of the coming situation: *spes contra spem* (*hope against all hope*). In his Epistle to the Romans, Paul addressed this motto to Abraham, who was longing for sons and grandchildren. At present, the aim is to create a future fit for grandchildren and to ensure the long-term habitability of the Earth. And here, too, the situation is by no means looking bright. In the history of the Earth, the Anthropocene is a catastrophe comparable to a meteorite impact leading to subsequent climate change. The Anthropocene was caused by industrialised humanity, but individual people have no control over it. No individual or nation has deliberately triggered ecological catastrophe, indeed, no individual or nation is causally responsible for the crisis of nature. Humankind as a whole, yes; individually, no. Nevertheless, the Anthropocene is forcing people to act. Will they be capable of emerging from this loss of control and regaining agency? That is the crucial question that will define the 21st century. In other words, it is a matter of bringing humanity's ecological footprint back into line with the regenerative capacity of the biosphere. This will affect the wealthier half of the world's population more than the poorer half, who, on the other hand, are entitled to a better life. However, at present, all likely trends with respect to nature or to the economy point in one ruinous direction. How can we have hope despite expectations to the contrary?

Expectations are based on forecasts, which in turn are based on probabilities. But history, both at the village level and globally, does not by any means progress only along linear paths, but is instead interspersed with many non-linear events. Examples abound: the fall of the Berlin Wall, the coronavirus pandemic, the Fridays for Future movement. These events have one common denominator: they have been unpredictable and momentous. Those who hope anticipate surprises; hope is predominantly based on the non-linear, chaotic

moments in history. That is why it is necessary to develop ethics under the conditions of uncertainty. In this sense, it is quite rational for ethical action to proceed within our own community and not to worry about what is going on in other communities and regions of the world.

There is no other way to understand Pope Francis deciding to recommend the Good Samaritan as a model for social and civic action<sup>20</sup> in world society. He says: „Social love is a force capable of inspiring new ways of approaching the problems of today's world, of profoundly renewing structures, social organizations and legal systems from within.“<sup>21</sup> He is thus guided by hope and definitely not probability by choosing to rely on the innumerable initiatives and cultures that are swimming against the tide. This brings to mind those citizens' cooperatives that work for renewable energy, of the companies that take human rights along their supply chain seriously, of those lawyers who bring environmental lawsuits to court, or of the animal breeders who have moved on from factory farming. This is not to mention the numerous conflicts, especially in the global South: struggles against dams, against mines, against plantation cultivation, for agro-ecology, for car-free mobility, for a variety of social enterprises. Taken individually, each initiative is fragmentary and fleeting, but taken together they can be capable of echoing through society, especially during chaotic moments. What was it the eminent Czech human rights activist and future president Václav Havel said? „Hope is not the conviction that something will turn out well but the certainty that something makes sense, regardless of how it turns out.“



### About the author:

Prof. Dr. Wolfgang Sachs is author, honorary professor and research director emeritus at the Wuppertal Institute for Climate, Environment and Energy.

<sup>20</sup> SPADARO (2020): 9. - <sup>21</sup> Fratelli tutti: 183.

## Bibliography

- BRAND, Ulrich/ WISSEN, Markus (2018): Limits to Capitalist Nature. Theorizing and Overcoming the Imperial Mode of Living. London (Rowman & Littlefield).
- CHANCEL, Lucas/ PIKKETY, Thomas (2015): Carbon and Inequality: From Kyoto to Paris. Paris School of Economics.
- CRUTZEN, Paul J. (2002): Geology of Mankind. *Nature* 415, 23.
- Encyclical Letter *Fratelli tutti* (2020): On Fraternity and Social Friendship. Vatican (Vatican Publishing House).
- FOLKE, Carl et al. (2019): Transnational Corporations and the Challenge of Biodiversity Stewardship. *Nature Ecology & Evolution* (3), 1396–1403.
- FRANCIS (2017): Message of His Holiness Pope Francis to Prof. Margaret Archer, President of the Pontifical Academy of Social Sciences. Vatican.
- HAMILTON, Clive (2017): Defiant Earth. The Fate of Humans in the Anthropocene. London (Polity Press).
- HORN, Eva/ BERGTHALLER, Hannes (2019): The Anthropocene. Key Issues for the Humanities. London (Routledge).
- HUBACEK, Klaus et al. (2017): Poverty Eradication in Carbon-constrained World. *Nature Communications* 912 (8), 1-9.
- KARTHA, Sivan et al. (2020): The Carbon Inequality Era. Report of the Stockholm Environment Institute and Oxfam.
- POVOLEDO, Elisabetta (2018): Pope Tells Oil Executives to Act on Climate: 'There Is No Time to Lose'. *New York Times*, June 19, 2018.
- MCEWAN, Ian (2021): Ian McEwan on the Pandemic Year: Good Government Is the Only Solution. *The Wall Street Journal*, March 19, 2021.
- SACHS, Wolfgang/ SANTARIUS, Tilman (Eds.) (2007): Fair Future: Resource Conflicts, Security and Global Justice. London (Zed Books).
- SPADARO, Antonio (2020): *Fratelli tutti*. Una guida alla lettura. *La Civiltà Cattolica* 4088 (4), 105-119.
- International Resource Panel (2019): Global Resources Outlook 2019. Nairobi (United Nations Environment Programme).