

EIBEA 2019

ENCONTRO IBEROAMERICANO DE ESTUDOS DO ANTROPOCENO

Atas

Editores

João Ribeiro Mendes ◀ *Bernhard Josef Sylla*

EIBEA 2019

ENCONTRO IBEROAMERICANO DE ESTUDOS DO ANTROPOCENO

Atas

Editores

João Ribeiro Mendes ♦ *Bernhard Josef Sylla*

Edição:



Apoio:



FICHA TÉCNICA

Título

EIBEA 2019. Encontro Iberoamericano de Estudos do Antropoceno. Atas

Editores

João Ribeiro Mendes & Bernhard Josef Sylla

Local

Braga

Data

2019

DOI

10.21814/1822.62541

ISBN

978-989-33-0396-2

ÍNDICE

PREFÁCIO	i
INTRODUÇÃO	1
CONFERÊNCIAS PLENÁRIAS	3
SIGNIFICADOS DEL ANTROPOCENO. UNA EXPLORACIÓN CONCEPTUAL DE LA NUEVA ÉPOCA GEOLÓGICA – Manuel Arias-Maldonado	7
A PHYSICAL FRAMEWORK FOR THE EARTH SYSTEM IN THE ANTHROPOCENE: TOWARDS AN ACCOUNTANCY SYSTEM – Orfeu Bertolami & Frederico Francisco	41
CONFERÊNCIAS PARALELAS	53
ASPETOS FILOSÓFICOS DO ANTROPOCENO: O LUGAR DA TRANSMISSÃO CULTURAL EM NOSSAS REPRESENTAÇÕES SIMBÓLICAS – Cláudia Castro de Andrade	55
UN CONTRATO NATURAL PARA AFRONTAR EL ANTROPOCENO – Thomas Heyd	71
ANGOLA/LUANDA: A (IN)CONSCIÊNCIA DA ERA ANTROPOCÉNICA EM MAIS UM DIA DE VIDA DE RYSZARD KAPUSCINSKI, RAÚL DE LA FUENTE E DAMIAN NENOW – Isabel Ponce de Leão & Włodzimierz Szymaniak	83
O PÓS-ANTROPOCENO EM ORYX AND CRAKE DE MARGARET ATWOOD – Maria do Carmo Mendes	99
AS PESTES EM TEMPO DE PRIMADO DA CIÊNCIA – Rui Paes Mendes	111
ONTOLOGIA UBUNTU: NATUREZA <i>SER-COM</i> HOMEM – Marcelo José Derzi Moraes & Mariane Biteti	131
OBSERVATÓRIO DE POLÍTICAS PÚBLICAS PELA SUSTENTABILIDADE (OPPS): DIAGNÓSTICO PRELIMINAR DOS DESAFIOS E OPORTUNIDADES VIVENCIADOS PELOS MUNICÍPIOS DE MINAS GERAIS, SUDESTE DO BRASIL – Alexandre Túlio Amaral Nascimento <i>et alii</i>	147
A SAÍDA DO ANTROPOCENO E A PROPOSTA DE DESAUTOMATIZAÇÃO DE BERNARD STIEGLER – Maria Adelaide Pacheco	163
DESENVOLVIMENTO SUSTENTÁVEL E DEMOCRATIZAÇÃO, NO ANTROPOCENO: O CASO DA GUINÉ-BISSAU – Cláudia Toriz Ramos ...	179
THE CONCEPT OF SUSTAINABLE RETREAT AS AN ANSWER TO ANTHROPOCENE CHALLENGES – Richard Stáhel	195
O ANTROPOCENO – UM NAUFRÁGIO COM ESPECTADOR? – Bernhard Sylla	217
EL SER HUMANO SAUDOSO: LA IMPORTANCIA DEL SENTIMIENTO EN LA REFLEXIÓN FILOSÓFICA – Rocío Carolo Tosar	235

LA FELICIDAD SOSTENIBLE: NUEVOS MODOS DE PENSAR LO HUMANO EN EL ANTROPOCENO – Marcelino Agís Villaverde	253
PROGRAMA DO EVENTO	263
CARTAZES DO EVENTO	267
FOTOS	269



THE CONCEPT OF SUSTAINABLE RETREAT AS AN ANSWER TO ANTHROPOCENE CHALLENGES

Richard Stáhel

Institute of Philosophy, Slovak Academy of Sciences
richard.stahel@savba.sk

Abstract: Critical examination of possible socio-political Anthropocene consequences leads to the conclusion that the sustainable development concept is not an adequate answer for current threats and risks. An effort to implement the sustainable development concept can even make climate changes and other forms of nature devastation worse, as it turns out on ongoing greenhouse gas concentrations growth in the atmosphere, despite obligations that result to all states of the world from Paris agreement. The climate change rate and range of plant and animal species extinction confirms J. Lovelock's thesis that humanity does not have enough time and, most likely, enough sources to implement the sustainable development concept and, as B. Latour points out, we do not have a big enough planet. Therefore, it is necessary to think about a retreat – to areas that are likely to stay livable even after the sea level rise and desertification; it is necessary to think about how to move millions of people from areas flooded by sea or parched by desert; to think about a change of our current way of life, of production of food and energy so that not only humankind as animal species would continue, but also our civilization and its technological and organizational knowledge. Even basic theses based on this concept indicate a need to reassess most political concepts, mainly the concepts of sovereignty, citizenship, but also those of freedom of movement and residence, freedom of business and consume, which work as fundamentals of the neoliberal economic-political system. Retreat expects complex and organized migration to beforehand chosen and arranged areas. Opposite to retreat is mass escape chaos that reduces human relations to fight for survival. As J. Lovelock proposed in his sustainable retreat concept, relocating people from areas affected by climate changes to climate oases would mean that rich northern countries give up their current, in fact, isolationistic politics of refusing climate migrants. Therefore, the concept of sustainable retreat requires much greater competence and especially willingness to cooperate not only nationally, but also internationally and globally, in addition to what humanity is capable of doing today.

Keywords: Anthropocene – Sustainable development – Sustainable retreat – Tribalism – Environmental authoritarianism – Lovelock

Resumo: O exame crítico das possíveis consequências sociopolíticas do Antropoceno leva à conclusão de que o conceito de desenvolvimento sustentável não é uma resposta adequada para as ameaças e riscos atuais. Um esforço para implementar o conceito de desenvolvimento sustentável pode até piorar as mudanças climáticas e outras formas de devastação da natureza, pois resulta do contínuo crescimento das concentrações de gases de efeito estufa na atmosfera, apesar das obrigações resultantes para todos os estados do mundo desde o acordo de Paris. A taxa de mudança climática e a extensão da extinção de espécies vegetais e animais confirma a tese de J. Lovelock de que a humanidade não tem tempo suficiente e, provavelmente, fontes suficientes para implementar o conceito de desenvolvimento sustentável, de modo que, como ressalta B. Latour, não tem um planeta suficientemente grande. Portanto, é necessário pensar numa retirada - para áreas que provavelmente permanecerão habitáveis mesmo após a elevação do nível do mar e a desertificação; é necessário pensar em como mover milhões de pessoas de áreas inundadas pelo mar ou ressecadas pelo deserto; pensar numa mudança de nosso modo de vida atual, de produção de alimentos e energia, para que não apenas a humanidade como espécie animal continue, mas também a nossa civilização e o seu conhecimento tecnológico e organizacional. Mesmo teses básicas derivadas desse conceito indicam a necessidade de



reavaliar a maioria dos conceitos políticos, principalmente os de soberania, cidadania, mas também os de liberdade de movimento e residência, liberdade de negócios e consumo, que funcionam como fundamentos do sistema político-económico neoliberal. A retirada faz esperar uma migração complexa e organizada para áreas previamente escolhidas e organizadas. O oposto é o caos da fuga em massa que reduz as relações humanas a uma luta pela sobrevivência. Como J. Lovelock propôs no seu conceito de retirada sustentável, a transferência de pessoas de áreas afetadas pelas mudanças climáticas para oásis climáticos significaria que os países ricos do Norte abandonariam as suas políticas atuais, de facto isolacionistas, de recusa de migrantes climáticos. Portanto, o conceito de retirada sustentável exige muito maior competência e, principalmente, vontade de cooperar não apenas nacionalmente, mas também internacional e globalmente, além do que a humanidade é capaz de fazer hoje.

Palavras-chave: Antropoceno - Desenvolvimento sustentável - Retirada sustentável - Tribalismo - Autoritarismo ambiental - Lovelock

The concept of Anthropocene

The concept of Anthropocene²⁰ has its origins in the natural sciences, but I would like to concentrate on its social and political implications²¹. The Anthropocene is the new epoch created by humans with all their activities. Because of industrialism²², urbanization, and exponential growth of the human population in the last two centuries the extent of our species influence on the environment has reached such a level that we have begun to influence several key primarily self-regulating systems of Earth. The Anthropocene, then, is an unintended by-product²³ of human activities, such as combustion of fossil fuels, extensive use

²⁰ Regarding the origin and evolution of the term anthropocene and the accompanying discussions, see (Steffen et al., 2011b) and (Malhi, 2017). About the definition of Anthropocene see (Steffen et al., 2011a; 2015; 2018) and (McNeill & Engelke, 2014) or (Elis, 2019).

²¹ Concerning the philosophical investigation of the Anthropocene and its socio-political consequences see Purdy (2015), Angus (2016), Davies (2016), Latour (2017; 2019).

²² Industrialism is seen not only as a form of mass production of energy and different kinds of goods, but since 1950's agriculture and sea fishing have industrial character as well. We also have tourist industry, music and film industry, or more precisely industry of entertainment and information. All these activities are characterized by high energy demands, concentration and centralization, which then require long-distance, often intercontinental transport of a large amount of goods and people. All these activities have therefore very significant, and mainly negative impact on the quality of all components of the environment.

²³ For example, thousands of kinds of pesticides, herbicides, insecticides and other agrochemistry products are primarily used to increase the agroproduction, not to pollute the land and contaminate the ground and surface waters; just as the primary use of Freon wasn't to deplete the ozone layer, and when the technologies use of combusting fossil fuels spread, the goal was not to cause climate change, etc.



of plastic and concrete, nuclear weapons tests²⁴, or industrial farming of domesticated animals and all kind of pollution. In short: humanity has become a global geophysical force²⁵, with the power to change and shape the entire Earth System²⁶. The idea of the Anthropocene implies that the Holocene, «the only state of the Earth System that we know for certain can support contemporary human societies» (Steffen et al., 2015, p. 736), which allow for the formation of agriculture and subsequently also civilization, has ended. In addition, «the Anthropocene represents the beginning of a very rapid human-driven trajectory of the Earth System away from the glacial-interglacial limit cycle towards new, hotter climatic conditions and a profoundly different biosphere» (Steffen et al., 2018, p. 8253), i.e., to the so-called Hothouse Earth situation «with serious challenges for the viability of human societies» (*Idem*, p. 8256). In other words, the Anthropocene seems very unstable compared to the Holocene and its relative climate stability, but it is still only a transitional epoch to a potentially much worse state, which «(...) poses severe risks for health, economies, political stability (especially for the most climate vulnerable), and ultimately, the habitability of the planet for humans» (*Ibidem*).

The destabilization of climate and the loss of biodiversity are the most visible and probably the most dangerous aspects of the Anthropocene, because affects many other parts of the Earth System²⁷. Climate crises and the ongoing

²⁴ Since the first nuclear test on 15th of July in 1945 until now were detonated 2055 nuclear explosions, many of them in the atmosphere or in the oceans, there were also several nuclear accidents. These activities only added to the change of chemical and physical properties of the ecosphere.

²⁵ «The concept of the *Anthropocene* (...) was introduced to capture this quantitative shift in the relationship between humans and global environment. The term Anthropocene suggests: (i) that the Earth is now moving out of current geological epoch, called Holocene and (ii) that the human activity is largely responsible for this exit from the Holocene, that is, that humankind has become a global geological force in its own right.» (Steffen et al., 2011b, p. 843)

²⁶ The argument that humanity has become a global geophysical force could be supported, among other things, by the idea of geoengineering, i.e., the theoretical and practical possibility to consciously manipulate originally self-regulating processes of planetary climate system. According to Steffen et al., without «effective planetary stewardship (...) the Anthropocene threatens to become for humanity a one-way trip to an uncertain future in a new, but very different, state of the Earth System» (Steffen et al., 2011a, p. 757). Lenton and Latour (2019) came to a similar conclusion.

²⁷ So far, they have been identified in addition to climate change and changes in biosphere integrity (biodiversity depletion), changes in biochemical flows of Phosphorus and Nitrogen, freshwater use, land-system use, novel entities, stratospheric ozone depletion, atmospheric



process of mass extinction of plant and animal species (biodiversity reduction) are unlikely to be able to mitigate or stop. This means that the near future will be characterized by the unpredictability and instability of the climate system on such a scale that it is impossible to rely on the stability of existing states and political systems. From a philosophical point of view, it means that almost all existing concepts of society and politics are irrelevant in the new climate regime, respectively in the epoch of Anthropocene. We must try to find or develop concepts that consider this new situation, concepts that could be an adequate response to current threats and risks. Only the climate crisis will change the understanding of social relations and their predisposition, for example, as it turns out, that climate stability and biodiversity must be understood as public goods.

Concept of sustainable development and limits of Earth System

Awareness about the unsustainability of development that is based on the imperative of growth is part of public and scientific discourse at least from the publishing of the report of the *Club of Rome*, known as *The Limits to Growth* (Meadows et al., 1972). Also, the question if or how the development of humankind could be sustainable have emerged. It seemed that the answer was in the so-called *Brundland report* named after the chair of the *World Commission on Environment and Development published in 1987 (Our Common Future)*. This report defines the *sustainable development* as the ability that «meets the needs of the present without compromising the ability of future generations to meet their own needs» (Chap. 3). The concept of sustainable development therefore awaits the possibility of finding a form of development that does not destroy the environment and is therefore also a prerequisite for further development. Many states and UN organizations have incorporated this concept into their development plans. Even the development plans prepared at the UN summit in New York in September 2015 with the 2030 Agenda for Sustainable Development (UN 2015) are based on this concept. From this point of view, the concept of

aerosol loading and ocean acidification (Steffen et al. 2015). Plastic and other waste pollution also appears to be a danger to various planetary systems also to human and animal health.



sustainable development is practically unique among many environmental concepts that have received institutionalization and practical application attempts. On the other hand, after more than 30 years of using this concept, the quality of the global environment is much worse than it used to be. Research after research now shows that global civilization surpasses the sustainability limits of the Earth System.

Only in terms of growth of raw materials consumption, which is just one of many criteria for sustainable global civilization, it is obvious that limits of planetary system are already overshoot. Global consumption of all kinds of raw materials has increased from 22 billion tonnes in 1970 to 70 billion tonnes in 2010 (Shandl et al., 2017). If the current pace of global economic growth continues, global consumption of all types of raw materials will reach 180 billion tonnes per year in 2050. By maximizing the efficiency of the use of available resources and introducing high carbon taxes, global consumption could reach 95 billion tonnes in 2050. Around 50 billion tonnes is considered an environmentally sustainable level of consumption; however, this threshold value was already exceeded in 2000 (Hickel, 2018).

One reason for this is that despite increased energy efficiency and the rapid development of renewable energy technologies, *decoupling* has not yet been achieved – i.e., separating economic growth from the growth of resource consumption and the growth of waste and greenhouse gases produced is unsuccessful. One of the reasons is the Jevons paradox – the observation that improved energy efficiency can paradoxically increase (thus not reduce) the overall consumption of energy by making an activity cheaper and thus more scalable or accessible – e.g. more economical car or aircraft engines did not lead to a reduction in the consumption of oil products, but on the contrary – the cost reduction for one kilometer of travel or flight has led people to travel more. This is largely due to the global increase in consumer expectations because of massive manipulation by the marketing and advertising industries, as well as the continuing growth of human populations (approximately by 80-90 million people per year) whose basic needs can only be met by further growth in industrial and food production.



Moreover, due to the globalization of production and distribution of goods and services, the carbon footprint of ordinary life, even in the poorest part of the population, has increased dramatically because even everyday consumer goods are transported by ships, planes or trucks of a continent to another, straight as waste²⁸ which is always also the product of every production and consumption.

Alone, maintaining existing residential, industrial, energy and transportation infrastructure consumes a huge amount of energy resources and raw materials while producing the same amount of waste and greenhouse gases and other forms of pollution, e.g. dust and smog.

Although it is obvious that a considerable part of existing infrastructure is no longer able to withstand extreme weather phenomena such as high-speed winds, heavy rainfall and subsequent floods or high temperatures, all climate models predict the mere occurrence and greater intensity of these extreme weather events.

The concept of sustainable development gives hope to the poor and vulnerable part of the world's population that it is possible to live better, but at the same time it has contributed to the increased demand for natural resources. Above, in stark numbers, the express limits of planetary resource consumption show that the path of development used by the global northern countries «cannot be followed by the 75-80% of the human population who are now at various stages of their trajectories out of poverty and are beginning to compete with today's wealthy countries for increasingly scarce resources» (Steffen et al., 2011a, p. 739). In connection with the fact that the accumulated greenhouse gas emissions throughout history originated mainly in the northern countries of the world, they mainly cause damage to developing countries and create a potential huge conflict in climate and resources or, more precisely in environmental justice.

²⁸ Chinese ban of plastic waste import from the end of 2017 and consecutive effort to redirect plastic waste produced by consumers in Global North countries to Vietnam, Indonesia or Philippine clearly shows that so-called recycling is only another way how Global North tries to externalize the problem of plastic waste. The public of Global North countries started to recognize this problem only when Indonesia and other countries started sending ships full of plastic waste back to Great Britain, Canada or Australia in 2019.



In the situation when neither public budgets nor insurance companies pay for damages and devastation caused by hurricanes, floods, wood fires or droughts²⁹, the creation of further development plans and strategies seems more and more like anachronism or ignorance of reality. In other words, the current form of implementing a sustainable development concept is not globally sustainable in the medium term either³⁰, or it is too late for sustainable development (Maxton, 2019). At the same time, people in developed countries are unlikely to voluntarily agree to a reduction in consumption, which means a reduction in consumer freedom. I will discuss this contradiction later.

Sustainable retreat

If we spend more than is sustainable and, according to many research reports, we must spend less if humanity should have a chance to survive, we must abandon the concept of sustainable development. This is the main idea of degrowth concept. More complex or at least radical is concept of sustainable retreat.

One of the authors who realized that the concept of sustainable development is unrealizable and literally unsustainable is James Lovelock³¹. According to Lovelock, «sustainable development simply means growth» (Lovelock, 2014, p. 108). Growth in production and consumption means greater consumption of raw materials and thus further environmental degradation, but also an increase in the amount of waste and greenhouse gases emitted to the atmosphere. While the pursuit of the concept of sustainable development contributes to the stability of

²⁹ Mami Mizutori, the UN secretary-general's special representative on disaster risk reduction, said that one climate disaster happening every week (Harvey, 2019).

³⁰ More in (Stáhel, 2019).

³¹ James Lovelock is known as the author of the Gaia Hypothesis and the Gaia Theory, claiming that Earth and the whole planetary biosphere works as a single, self-regulating system or as a feedback system where life maintains the condition for life on the planetary scale (life affects its habitat and, at the same time, habitat affects the evolution of life, which means that life must be understood as a planetary phenomenon). Earth System Science and the concept of Anthropocene have accepted and confirmed many of key points of Gaia Hypothesis. However, Lovelock started to develop his primarily natural sciences conception also in socio-political, anthropological and philosophical fields by the end of the first decade of this century. It resulted in the formulation of the sustainable retreat concept.



the economic system based on the imperative of growth, it is also deepening climate change and other forms of environmental devastation. The speed of climate change and the extent of extinction of plant and animal species confirm Lovelock's suggestion that humanity lacks more time and probably sufficient resources. Lovelock's response to the inadequacy of the concept of sustainable development in the Anthropocene era is the concept of sustainable retreat³².

Because we expand too much it is, according to Lovelock, – rather than development – necessary to consider retreating to places that remain habitable even after the rise of the sea level and desertification. There is a need to think about how to relocate millions of people from the areas that will be flooded by the sea³³, swallowed by desert sands, or become uninhabitable due to high temperatures and humidity³⁴. It is necessary to consider changing the way of life, the organization of society, food and energy production so that the conditions are created not only for the survival of mankind as an animal species, but also for the preservation of civilization and its technical and organizational knowledge.

Sustainable retreat implies a careful and organized transfer of millions, possibly billions of people, to pre-selected and prepared areas. According to

³² This concept was first formulated in *The Revenge of Gaia: Why the Earth Is Fighting Back – and How We Can Still Save Humanity* (Lovelock, 2006).

³³ It is apparent that even limiting increases in the global temperature to 2 °C will not guarantee that people will be protected from extreme weather events and rising sea levels for several meters or from the need to leave most coastal cities. «The economic and social cost of losing functionality of all coastal cities is practically incalculable» (Hansen et al., 2015). The need to resettle tens or even hundreds of millions of people from the coastal cities will not be achieved without conflicts and struggles over the territories to where these people can be moved. Simultaneously, the process of desertification will continue and lead to millions of people being uprooted from their current homes. They will also need new places to live.

³⁴ A study published in 2017 shows that «extremes of wet-bulb temperature in South Asia are likely to approach and, in a few locations, exceed this critical threshold by the late 21st century under the business-as-usual scenario of future greenhouse gas emissions. The most intense hazard from extreme future heat waves is concentrated around densely populated agricultural regions of the Ganges and Indus river basins» (Im et. al., 2017, p. 1). Millions of people in that area cannot stay in air-conditioned rooms, because they live in very poor rural areas. Now, 30% of world's population is facing this threat, and by the end of century, with the current trend in greenhouse gases emissions, it will be more than 50%. In addition, increasing effort to face heat waves by installing air-condition devices causes on one hand an increasing of energy consumption and on the other hand further heating of air in urbanized areas. Heat waves in the summer of 2019 hit the mentioned area with higher temperatures that this study anticipated, but in the same time the record-breaking heat wave struck large parts of Europe. Only in India were exposed to heat with temperatures around 50 °C more than 200 million people (Janjevic, 2019), (Rehlp, 2019).



Lovelock, cities must be built especially as a climate oasis, such as high-density, high-climate, controlled cities with a small environmental footprint. He uses the metaphor of (ants') nests for these cities built for survival and he talks about the «retreating to the nests» (*Idem*, p. 118).

The opposite of retreat is the chaos of mass escape that reduces interpersonal relationships to fight for survival. However, relocating people from the areas threatened by climate change into climate oasis presupposes that the countries that make up the Rich North do abandon their current de facto isolationist policy that rejects climate migrants³⁵.

The basic theses based on this concept suggest the need to reassess most of the concepts of political thinking, especially the notions of sovereignty, citizenship, property, but also freedom of movement and residence, freedom to do business and consume, that is, several human rights that underlie the neoliberal economic-political system, but also its fundamental imperatives. As survival is the biggest problem facing humanity, the growth imperative must be replaced by the survival imperative (*Idem*, pp. 148-151). However, according to Lovelock, humankind should be thinking about and preparing for retreat otherwise all humanity will not survive. But this will fail if humanity is wasting its intellectual and increasingly limited material resources on further development plans³⁶.

³⁵ Only large states such as China, Canada, the USA or Russia could realize the concept of withdrawal on their own territory. This opens the question of the right to relocation. The case of small ocean nations living on the islands that are threatened by the rising sea level shows how problematic would be even the relocation of only a few thousands or ten thousands of people despite that they are facing life threatening devastation of their land (Risse, 2009).

³⁶ «Huge sums that should have gone on sensible adaptation have been squandered on the renewable energy sources, regardless of their inefficiency or environmental objections, and on pointless attempts to achieve that ultimate oxymoron 'sustainable development'. Now that the real climate has become restless and droughts, floods and tornados of unprecedented severity make news, a sensible politician might wonder if the government should have spent more on local adaptation to climate change and less on visionary attempts to save planet.» (Lovelock, 2014, p. 93).



The threat of tribalism

Every political philosophy concept is based on some anthropology or philosophical concept of human nature. The concept of Anthropocene among other means that humanity has become a global geological force, a quantity capable of influencing the planetary climate and several other parts of Planetary System and this knowledge also leads to the need for a completely new philosophical anthropology. Lovelock derives anthropology from the threat that humanity faces.

According to Lovelock, one of the most serious threats to humanity is the humanity's factual inability to cooperate at the global level. This is because we are "tribal nationalists" already at a genetic level, as Lovelock says.³⁷ Literally, he says that

tribalism is so strongly a part of our natures that there is little chance that benign education, selective breeding or genetic manipulation can be used to alter it. Like it or not, when confronted with an invasive threat to our territory we will respond tribally. On the other hand, when confronted by huge natural disaster, the idea that we all belong to humanity as if it was our tribe, evokes little response, unless the disaster affects us directly" (*Idem*, p. 147).

At the same time, he thinks that: «The concept of humanity or the human race sounds good in political exhortations and sermons but are essentially beyond the perception of most of us» (*Idem*, p. 148). Therefore, he asks a disturbing question in this regard: «The rational and decent concept of humanity as the ultimate unit for world governance seems so well established that it is pointless to challenge it. But what if in reality the tribe or nation is the largest possible unit?» (*Idem*, p. 152). The insistence on this issue is pointed out by the isolationist reactions of many states to current global threats, including those of climate change, and the rampant separatism or fragmentation of complex modern societies into non-communicating groups of supporters for political parties, leaders, or even sport clubs, or tribalization that occurs in so-called failed states. It is precisely

³⁷ The biological nature of group thinking is supported by several current researches in the field of anthropology and biology. See e.g. Chua (2018) and also Sapolsky (2019).



humanity's ability and willingness to cooperate that is a condition for mitigating the effects of climate change and other manifestations of environmental devastation and thus the survival of humanity. However, the response of several states to the effects of climate change raises great questions about the ability and even more about the willingness to cooperate on this issue.

Environmental authoritarianism

Existing concepts of social structure and organization have emerged in a completely different climate regime than the present generation will live soon. Therefore, many of the current threats cannot be named, and the concepts are not able to create or justify a system of rights and obligations that would frame the interpersonal and social relationship in communities where even breathable air will not be taken for granted as it is now. Lovelock is skeptical about the possibility of adopting the necessary rules democratically. Reactions to attempts to introduce a carbon tax in France show that it is unlikely to adopt the necessary rules by democratic procedure at national level, let alone at global level. Much more plausible is the approach that Habermas called "Chauvinism of Affluence" (Habermas, 1996, pp. 507-510). This approach is manifested by the reluctance of the "Rich North" to accept environmental refugees from areas affected by climate change. In view of the above-mentioned anthropology, it is also understandable that Lovelock rejects egalitarianism (2014, pp. 144-145) as an underlying concept representing the basis for the rules of the social organization of the future urban super organisms. For egalitarianism, Lovelock refers to what we could call democratic or civic equality that is what is nowadays considered to be a fundamental principle in the legal and political systems of the Global North countries. Suspension is permissible only in times of exceptional state or war and it is generally assumed that this can occur only for a limited time. The period during which humanity will face the lack of food, water and weather conditions that make life impossible for human communities can last several centuries or even thousands of years. Hence, suspending the current civic status or most of currently recognized civil rights and freedoms, would not be temporary but



permanent. Lovelock is clearly aware of this. He emphasizes that the situation into which humanity is getting due to climate change is more serious and threatens much more people than World War II. However, he emphasizes that this is a threat that is manageable but requires a different organization of society that would be based on other imperatives, principles and concepts than we take for granted, or at least acceptable at present. He uses Singapore as an example: a country with the multi-million urban population that is situated in the geographic area with a climate that large part of the human population will very probably face soon. Yet it is a city with a high standard of living and an overall development index. In his words:

Singapore, despite the heat and humidity, is one of the more desirable cities to live in. (...) Singapore has been dictatorial not democratic, but in the Second World War democracy was suspended in several previously democratic nations for the duration of the war. Perhaps a similar suspension of democracy will be needed when climate and other changes become as serious and as deadly as a major war (*Idem*, pp. 119-120).

The strategy that Lovelock suggests as part of his sustainable retreat concept can also be described by M. Beeson's words as environmental authoritarianism (Beeson, 2010). He pointed out that the continuation of environmental degradation would increasingly threaten the stability of existing political regimes. Combined with food and water scarcity because of climate change, according to Beeson, more and more regimes will go beyond authoritarianism to maintain at least a low level of public order as a basic legitimacy presupposition of any political regime. Later, in response to this essay, B. Gilley pointed out that China's policy to mitigate the impact of climate change and prepare for more serious environmental and social consequences of continuing climate change has all the signs of what Beeson describes as environmental authoritarianism (Gilley, 2012). In addition, China is trying to guide process of urbanization by purposeful building of cities, which are projected



regarding climate change, or more precisely, regarding its habitability also in new climate regime³⁸.

Lovelock is not the only one who expresses doubts about the possibility of human rights preservation. Report of the Special Rapporteur on extreme poverty and human rights published at the end of June 2019 warns that: «Climate change threatens the full enjoyment of a wide range of human rights» (UNHCR, 2019, 4) also it threatens democracy and civil and political rights³⁹. Philip Alston, UN special rapporteur on extreme poverty and human rights even said: «We risk a 'climate apartheid' scenario where the wealthy pay to escape overheating, hunger, and conflict while the rest of the world is left to suffer» (Carrington, 2019). This kind of scenario anticipated Lovelock a few years ago.

The question that arises is: Can we at least save civil rights and freedoms if the concept of universal human rights is indeed already abandoned, or at least questioned? Or what to do to avoid this worst case scenario? First, we need to know what we can lose. So we must understand that today's way of life and Western understanding of consumer freedom is unsustainable. Especially if we accept every human being's equal right to life and, at the same time, the classic definition of the extension of freedom - one person's freedom ends where another

³⁸ The speed of urbanization in China has no parallel in human history. China was urbanized in 1978 on 19,72%, in 2015 on 56,1% and in 2016 was the number already 57,35%. Urban population has risen from 170 mil. to 770 mil. people, while between years 2010 and 2015 urban population increased by 101,37 mil. Number of cities risen from 193 to 656 and others are being built. Urban area was in 1981 about 7000 km², but in 2015 already 49 000 km² (which is like the area of whole Slovak republic). It is estimated that till year 2030 will be the urbanization of China almost 70%. In the cities already arises up to 80% of Chinese economic production. These processes also enabled a sharp increase in the quality of life, for example connection to public water and electricity supply or sewerage and by this, paradoxically also contributed to improve the quality of the environment. Urbanization in the same time increases access to health care and education. See (Jiahua, 2014), (Chen & Lees, 2018) and (Zhenhua & Jiahua, 2018). These processes inter alia mean that traditional and rural culture of China has changed to urban and industrial culture in less than half century. It created a need to formulate brand-new rules governing interpersonal and social relations. Their form and content are much closer to what Lovelock describes than the Euro-American political narrative can accept.

³⁹ «Consideration of the likely risks that will flow from climate change invariably focuses primarily if not exclusively on rights to life, water and sanitation, health, food, and housing. Yet democracy and the rule of law, as well as a wide range of civil and political rights are every bit at risk. Many commentators have insisted that climate change should be considered an emergency, and that governments and others should act accordingly. While this might not be intended to suggest the formal declaration of a state of emergency that would justify limitations on human rights. States may very well respond to climate change by augmenting government powers and circumscribing some rights.» (UNHCR, 2019, p. 17).



person's freedom begins.⁴⁰ If yes, then more the number of people who live on Earth grows, the more significant are the cuts individuals must accept in realizing their own consumer freedom, so as not to limit the freedom of others. With the growing population on finite planet the real space for freedom of each individual decrease⁴¹. Moreover, the growth of complexity of the global industrial civilization increases the degree of interdependence on one hand, and on the other the degree of mutual trust decreases because of the imperative of growth and profit and without it no human society can function in the long term. Access to sources necessary for the realization of fundamental freedoms is unequal, and, in fact, it thus limits its accessibility for most of the human population. The social inequality is deepening⁴² and it is not just because of basic imperatives of global economic-political system but also because of climate change (Beck, 2015) which exacerbates the existing social conflicts⁴³. Philosophical reflection then should cope with question whether the range of guaranteed freedoms can be broadened or at least sustained when the space for its realization with the growing human population struggling for increasingly limited resources narrows (Stáhel, 2016).

The answer may also be a statement that if we take the concept of human rights seriously, right to life should be understood not only as the right not to be murdered or executed, but also as the right to the environment that allows to survive, including the life supporting climate (average temperature a humidity), breathable air, water, food and shelter. These preconditions of life should be guaranteed and available to every human being. This means that just as the violation of human rights should not only be considered as the murder, torture or execution of people by governments and military or paramilitary organizations,

⁴⁰ I mean that especially Rousseau's understanding of freedom that is the most proper in the situation when human freedom is threatened by the increasing lack of resources to meet basic needs on the one hand and deepening mutual interdependence on other hand. More to Rousseau's understanding of freedom see in (Stáhel, 2015).

⁴¹ More in (Stáhel, 2016b).

⁴² Report from January 2019 showed that in the year 2018 continued the growth tendency of the wealthiest and the wealth reduction of poorest. Twenty-six people controlled as much wealth as the 3.8 billion people who comprise half the world's population, compared to forty-three people the year before (Oxfam, 2019).

⁴³ More in (Stáhel, 2016a).



so must the situation where millions of people are dying from hot flashes. Lack of water or food, alternatively, after a lack of safe shelter when strong winds or floods hit the area as a result of heavy storms. However even developed countries cannot prevent death of their citizens, for example during the freezing winter nights or during the summer heat waves. Precisely, in the severe weather conditions of Anthropocene, the shelter strong enough to resist the high-speed winds, floods or temperatures extremes, becomes a basic precondition for survival. However, the right to shelter, not even the right for housing, is in most countries fully commercialized and commoditized.

Conclusion

Lovelock`s concept of sustainable retreat is one of several attempts to consider the social and political consequences of Anthropocene. But Lovelock goes even further by trying to outline a framework within which new rules for organizing human society and interpersonal relations will be created. He claims that a completely new situation of shortages of such essential resources as water and food, and, finally, the state of the planet, when many densely populated areas are uninhabitable, will have to be considered. Migration movements and territorial struggles or gaining access to it will not only redraw the political-economic map of the world but they will also radically change the way of life of those communities that are not touched by climate change enough to leave their location. Therefore, Lovelock`s considerations can be understood as a philosophy of global climatic or environmental collapse and as a philosophy of state of exception that is not permanent, but definitely long-term. Lovelock formulates his concept as the philosophy of survival of the small climatic oases where all human activities will be subordinated to the survival imperative, given that global initiatives to mitigate environmental devastation and climate change are failing, or are too slow to transform the current global fossil economy into a carbon-neutral economy. This means that it is a retreat not only in geographical significance, but also in the political and economic dimension, that is, it leads to



small political units that will guarantee smaller scale of rights and freedoms and less extension of economic activities or freedoms.

Anthropocene, the epoch defined by human influence on the planet, among other things shows that economic-political system of global industrial civilization is incompatible with Earth system but any economic-political system however cannot survive without Earth system. The longer period the current societies will defy the radical changes in the organization of production and consumption, and resource and waste management, the more likely the future ways of organizing society will be close to what J. Lovelock predicts.

References

Angus, I. (2016). *Facing the Anthropocene: Fossil capitalism and the crisis of the earth system*. New York: Monthly Review Press.

Beck, U. (2015). Emancipatory catastrophism: What does it mean to climate change and risk society? *Current Sociology*, 63 (1) 75-88.

Beeson, M. (2010). The coming of environmental authoritarianism. *Environmental Politics*, 21 (2), 287-307.

Carrington, D. (2019). 'Climate apartheid': UN expert says human rights may not survive. *The Guardian*, 25 Jun 2019 [online], https://www.theguardian.com/environment/2019/jun/25/climate-apartheid-united-nations-expert-says-human-rights-may-not-survive-crisis?fbclid=IwAR1LUHrN1znUOKymk8_IBe5kgXGjkk3KO0iHN4cd3d5EFriUUuwZx19M3yA

Chen, G. & Lee, C. (2018). The New, Green, Urbanization in China: Between Authoritarian Environmentalism and Decentralization. *Chinese Political Science Review*, 3 (2), 212-231. DOI: <https://doi.org/10.1007/s41111-018-0095-1>.

Chua, A. (2018). *Political Tribes: Group Instinct and the Fate of Nations*. Penguin Press.



Davies, J. (2016). *The Birth of the Anthropocene*. Oakland: University of California Press.

Elis, E. (2019). *Anthropocene. A Very Short Introduction*. Oxford University Press.

Gilley, B. (2012). Authoritarian environmentalism and China's response to climate change. *Environmental Politics*, 19 (2), 276-294.

Hansen, J. et al. (2015). Ice melt, sea level rise and superstorms: Evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous. *Atmospheric Chemistry and Physics*, 15, 20059–20179. Retrieved from <http://www.atmos-chemphys-discuss.net/15/20059/2015/acpd-15-20059-2015.pdf>

Harvey, F. (2019). One climate crisis disaster happening every week, UN warns. *The Guardian*. Jul 7, 2019. [online] Available at: https://www.theguardian.com/environment/2019/jul/07/one-climate-crisis-disaster-happening-every-week-un-warns?fbclid=IwAR31MFQtBQxXwZVzPQlpez8svnLHj-j4UjtK9F_DY9bNhaAQI8rCAUMwIMl

Hickel, J. (2018). Why Growth Can't Be Green. *Foreign Policy*. September 12, 2018. [online] Available at: <https://foreignpolicy.com/2018/09/12/why-growth-cant-be-green/>

Hohoš, L. (2007). Globalization and a normative framework of freedom. *Human Affairs*, 17, 42-53.

Im, E.-S., Pal, J. & Eltahir, E. (2017). Deadly heat waves projected in the densely populated agricultural regions of South Asia. *Science Advances*, 3 (8), e1603322. DOI: 10.1126/sciadv.1603322.

Janjevic, D. (2019). India heat wave triggers clashes over water. *DW* 08.06.2019 <https://www.dw.com/en/india-heat-wave-triggers-clashes-over-water/a-49110943?fbclid=IwAR3FvDSwS3SlOQtX-maUnfP76llpiKZwQN6rGCdF2P99XeITs1U3salWjqw>



Jiahua, P. (2014). *China's Environmental Governing and Ecological Civilization*. Beijing: China Social Science Press and Springer-Verlag GmbH.

Latour, B. (2017). *Facing Gaia. Eight Lectures on the New Climate Regime*. Cambridge: Polity Press.

Latour, B. (2019). *Down to Earth. Politics in the New Climate Regime*. Translated by C. Porter. Cambridge: Polity Press.

Lenton, T. & Latour, B. (2018). Gaia 2.0. *Science* 361 (6407), 1066-1068. DOI: 10.1126/science.aau0427.

Lovelock, J. (2006). *The Revenge of Gaia: Why the Earth Is Fighting Back – and How We Can Still Save Humanity*. Santa Barbara (California): Allen Lane.

Lovelock, J. (2014). *A Rough Ride to the Future*. New York: The Overlook Press.

Malhi, Y. (2017). The Concept of the Anthropocene. *Annual Review of Environment and Resources*. 42, 77-104. DOI: <https://doi.org/10.1146/annurev-environ-102016-060854>.

Maxton, G. (2019). *Change! Why we need a radical turnaround*. <http://www.graememaxton.com/admin/resources/MaxtonChangeJulv1.pdf>

McNeill, J. & Engelke, P. (2014). *The Great Acceleration: An Environmental History of the Anthropocene Since 1945*. Cambridge: The Belknap Press of Harvard University Press.

Meadows, D., Meadows, D., Randers, J. & Behrens III., W., (1972): *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. New York, Universe Books.

OXFAM (2019). *Public Good or Private Wealth?* https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620599/bp-public-good-or-private-wealth-210119-en.pdf?utm_source=indepth

Purdy, J. (2015): *After Nature: A Politics for the Anthropocene*. Cambridge: Harvard University Press.



- Relph, S. (2019): Indian villages lie empty as drought forces thousands to flee. *The Guardian* 12 Jun 2019 [online], https://amp.theguardian.com/world/2019/jun/12/indian-villages-lie-empty-as-drought-forces-thousands-to-flee?fbclid=IwAR11PvweMnekuh-fOWWs_buSUCEvOeFlyWKt9DBphsLcu_-xvP3nRnITHwQ
- Rise, M. (2009): The Right to Relocation: Disappearing Island Nations and Common Ownership of the Earth. *Ethics & International Affairs*, 23 (3), 281 – 300. DOI: <https://doi.org/10.1111/j.1747-7093.2009.00218.x>
- Sapolsky, L. (2019): This Is Your Brain on Nationalism. The Biology of Us and Them. *Foreign Affairs* [online], 98 (2). <https://www.foreignaffairs.com/articles/2019-02-12/your-brain-nationalism>.
- Schandl, H., Fisher-Kowalski, M., West, J. & Giljum, S. (2018). Global Material Flows and Resource Productivity: Forty Years of Evidence. *Journal of Industrial Ecology*, 22 (4), 827 – 838. DOI: <https://onlinelibrary.wiley.com/doi/10.1111/anu.12626>
- Sklair, L. (2009). The globalization of human rights. *Journal of Global Ethics*, 5(2), 81-96.
- Sťahel, R. (2015). Človek, jeho sloboda a vlastníctvo v myslení Jeana-Jacquesa Rousseaua [Man, His Freedom and Ownership in the Thinking of Jean-Jacques Rousseau]. In: Manda, V. – Sťahel, R. – Pružinec, T.: Človek, Sloboda a vlastníctvo vo filozofii raného novoveku [Man, Freedom and Ownership in the Early Modern Philosophy]. Bratislava: IRIS, 105-167
- Sťahel, R. (2016a). Climate Change and Social Conflicts. *Perspectives on Global Development and Technology*, 15 (5), 480-496. DOI: 10.1163/15691497-12341403.
- Sťahel, R. (2016b). Environmental Limits of Personal Freedom. *Philosophica Critica*, 2 (1), 3-21.



Stahel, R. (2019). Sustainable development in the shadow of climate change. *Civitas, Porto Alegre*, v. 19, n. 2, p. 337-353, May-Aug. 2019. DOI: <https://doi.org/10.15448/1984-7289.2019.2.31971>

Steffen, W. et al. (2011a). The Anthropocene: From Global Change to Planetary Stewardship. *AMBIO* November 2011, 40 (7), 739-761.

Steffen, W. et al. (2011b). The Anthropocene: conceptual and historical perspectives. *Philosophical Transactions of The Royal Society A: Mathematical Physical and Engineering Sciences*, 369(1938), 842-867. DOI: [10.1098/rsta.2010.0327](https://doi.org/10.1098/rsta.2010.0327).

Steffen, W. et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347 (6223), DOI: [10.1126/science.1259855](https://doi.org/10.1126/science.1259855).

Steffen, W. et al. (2018). Trajectories of the Earth System in the Anthropocene. *PNAS* 115 (33), 8252-8259. DOI: <https://doi.org/10.1073/pnas.1810141115>.

UN (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*.
<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

UNHCR (2019). *Climate change and poverty: Report of the Special Rapporteur on extreme poverty and human rights A/HCR/41/39* (25 June 2019)
https://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session41/Documents/A_HRC_41_39.docx

World Commission on Environment and Development. (1987). *Our Common Future*.
<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

Zhenhua, X. & Jiahua, P. (2018): *China's Road of Green Development*. Beijing: Foreign Language Press.

* This article is part of VEGA project 1/0291/18 *Historic-philosophical analysis of environmental thinking, research on its influences on ethical, legal and political thinking and its social response.*