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Environmental and Social Crisis Through the Segment of Environmental and Political Justice, Energy Malnutrition and Livelihoods in Post-Industrial Regions or Self-Sufficiency Through the Reality of Today's Moment

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Environmental and social crisis through the segment of environmental and political justice, energy malnutrition and livelihoods in post-industrial regions or self-sufficiency through the reality of today's moment

Due to the consequences of the fossil era, humanity faces developmental and environmental issues of how to meet resource needs. Green energy from RES has solved all major environmental problems for several years. At the same time, the question of the impact of production on the environment arises. The hydropower segment, with its negative effects on the environment and space, calls into question the fundamental idea of green energy as an environment-, nature- and people-friendly alternative. In the article, I want to present the negative consequences of the construction of a hydroelectric power plant on the middle Sava, which, if placed in the last untouched part of our longest river, would cause irreversible environmental and social consequences.

In the article, the author constructively and critically discusses the field of new forms of energy. The so-called green energies are becoming an important economic and political subject, which can represent an additional burden through environmental and spatial influences. The burdens represent a significant departure from sustainability policies, which are supposed to be based on the balance of economic, energy, social and above all environmental indicators.
In today's turbulent time, when on a limited planet, due to the needs of a consumer society, conflicts arise for resources of various forms, it is necessary to critically question new forms of energy and the placement of objects in space.

Key words; Energy, consumption, river, hydropower, balance, sustainability, green energies.

The development of society and its consequences in the environment and space

The development in the century of the so-called industrial society caused many shifts and upheavals. Through social and economic progress, it also influenced many negative consequences in nature, environment and society. The consequences of development can therefore be defined through different aspects. Positive, due to the improvement of the standard of humanity and easier working conditions, which made it possible to extend life and improve the standard for the majority of the population. On the other hand, development created various social anomalies, which had a markedly negative impact on the relationships between people and people with nature. In spite of the fact that the development of society enabled technical and technological improvements, which enabled humanity to move from the physical to the technological and scientific level and to make work easier, man willingly or unwillingly subjugated nature.

The limitations of planetary capacities and the lack of fossil fuels on which development in industrial and post-industrial society rested, as well as the tendency of developed economies to generate ever-greater profits for capital, due to limited resources and the growing needs of an ever-increasing population, increase inequalities and injustices in society. Local and global environmental problems, which are deepening due to human activities in space, are becoming fundamental, global problems of modern times. If in the past (and mostly still today) regardless of the various political and economic systems, ecology was in a subordinate position compared to the economy and energy, today, due to increasing global and local problems, it is becoming an important factor in reminding us that the preservation of living nature requires a shift towards different social and environment- and nature-oriented concepts. The consequences of development, with the growth of the world's population, increasing needs and the limitation of non-renewable and renewable resources, together with the production of waste, cause friction in the local and global spheres. Humanity is faced with the dilemma of survival on a frontier planet.

An important fact why this is so is that ever since 1900, when the world's population was one billion six million, the number of inhabitants has increased to almost eight billion at the beginning of the 21st century.

If the ecosystem was stable until the industrial revolution, human activities from the beginning of the Anthropocene[1] "became the main driving force of global environmental changes" (Kirn 2014, p. 19). The depletion of resources and, in some places, their lack, with climate change as a consequence of human actions and his homocentric and anthropocentric view (Kirn, 2003, p. 18), have caused negative consequences that are not only reflected in the environment, but also in the quality of life (Stern et al., 1992, p. 2). Which calls development and sustainability into question. Also the dominant socio-economic paradigm, capitalism and privatization of everything possible, and the growing needs of a consumer society, with the dominant economic and technological development paradigm of growth (Kirn, 2012) and environmental and social irresponsibility (Hardin, 1968 in Dietz et al. 2003, p . 1907), resulted in forgetting the fundamental principle of the mutual interdependence of man and nature. Therefore, nature, due to "human transformation" and the new historical relationship between nature and society according to Kirn (2004, pp. 13 to 14), cannot be "understood outside of society and not society with all subsystems outside of nature" (Beck, 1992, in Kirn, 2004 p. 14).

The consumer-oriented mindset of the developed world is increasingly forgetting the importance and role of nature, its uniqueness and immeasurable intrinsic value for the existence of all living beings on the planet. Because of the dominant, materialist-oriented society, its role is still subordinated to man, organizations and economic factors (Kersten, 2017). Its importance is realized only when its basic sources of survival are lacking or it is absorbed due to negative consequences on its functioning. Only when under immediate threat does man recognize its inseparable characteristic of nature's self-existence in itself (Kirn, 2004, p. 15). While society "was, is and always will be in nature and is historically, temporally secondary" (Kirn, ibid.).

Therefore, with the social problems of modern times, such as migration, refugees, armed conflicts, social crises, the question arises: "why should society deal with environmental problems at all"? In other words, where is the "rubicon" of development, industrial growth

[1] The Anthropocene is the period of Earth's history that actually began after the Industrial Revolution. In it, people play the most important role, who, unfortunately, play the main role in putting pressure on nature, the animal and plant world, and the planet as a whole.

The term rubicon of industrial growth is meant as the extreme limit of industrial development, where there will be no more ways to solve the environmental consequences associated with industrial activity. Scientists do not agree on the point of no return. Some claim that we have already crossed it, others that we are inexorably approaching it. Environmentally and non-socially committed people claim that borders are not necessary at all.

and growing consumerism, and where are the limits of human non-environmental behavior in space?

Even the exploitation of human and natural resources remains an unbridled constant of the economic philosophy of the developed world. As in the past, the so-called developed countries live at the expense of other, less wasteful ones. The exploitation of underdeveloped and less influential countries, which are exposed to modern forms of banking, economic and political colonialism due to economic and political malnutrition, continues. Instead of society striving to reduce the differences between the poor and the rich, we have only deepened these differences with development.

If the improvement of living conditions led to population growth, the ever-increasing population meant an increase in the need for various goods. First, the basic ones, such as food, heating, energy, later, when the (so-called) consumer mentality of a developed society took shape, the basic needs were joined by demands for things that are not absolutely necessary for a person to survive, however, the production of only these demands additional consumption of energy sources. The discovery of coal and the basing of technologies on the use of other fossil fuels also caused an industrial revolution in the developed world, which, in addition to the already mentioned positive consequences for society, also had negative environmental consequences.

If fossil fuels, including coal, oil and natural gas, have powered economies for more than 150 years and currently provide about 80 percent of the world's energy, their use has been a burden for decades due to faulty technological processes, emissions of dust and dust particles as carriers of loads into the environment near and far surroundings of exposed areas (Žnidarič, 2023).

At the same time, they are the cause of many conflicts. In recent decades, mainly economically political and especially environmental due to the consequences of their long-term use and inadequate technologies

The development of society, through different socio-economic systems (capitalism, neoliberalism) and their consequences in space

Capitalism and its radical superstructure neoliberalism, from the point of view of the economy and environmental resources and the carrying capacity of the environment, is subject to constant growth and increasing material well-being (Plut, 2014, p. 115). In order to survive, capitalism must grow permanently, which is impossible on a limited planet with limited natural resources (Omladič, 2011 in Plut, 2014, p. 111). The growth of production and

consumption in neoliberalism leads to the depletion of natural capital, continued burdens and destruction. Anthropogenic and increased pressures on natural resources point to the fundamental need for changes in the existing paradigm of capitalism and, in the past, state socialism. Regardless of the diversity of socio-economic systems, socialism, capitalism and state totalitarianism, all systems have so far been destructively exploitative of the environment. Their activity was directed towards energy and economy. However, the field of ecology was neglected, so today, due to all the global and local environmental problems, we are at a crossroads, either to change the way of life and coexist with nature and survive, or to give in to the flow and social degradation and cause the destruction of all living beings on the planet. Insisting on the paradigm of growth, renewal of production and consumption, which represent the basic principles of capitalism, is only a short-term illusion that does not lead to a long-term and sustainable economy (Kirn, 2014, p. 122). After all, sustained growth is not without consequences for the environment and leads to even greater material - economic and social inequalities between people, which only deepens injustice.

The economic activities of the existing and dominant social system aimed at the continuous growth of profits, together with the growth of the population, energy consumption and the limitation of livelihood resources, create ever-increasing pressures on the environment (Kirn, 2012, 2014, 2016; Plut, 2014, Lowy, 2005, 2015). Economic growth in the last fifty years has not solved either the problems of poverty or the growing degradation (Rammelt, Boes, 2013, p. 269-270 in Kirn, 2014, p. 1029). The contradictions between capital and the environment are increasing due to the unsustainability of permanent growth. The ratio between the income of the five richest and the fifth of the poorest countries rose from 21:1 in 1960 to 121:1 in 2008 (Kirn, 2014, p. 1027). Growing environmental problems, due to the disregard of the self-renewing features of the environment and nature, are already growing into global, existential and survival problems of humanity. According to Lowy, (2015), the reign of capitalism has led to ecological-environmental destruction of unimaginable proportions. The lack and reduction of sources of quality drinking water, which in some places is already becoming an existential and survival commodity of modern times, the destruction-deforestation of the rainforest, the destruction of biodiversity, the depletion of the soil, and the accumulation of enormous amounts of waste that burden the environment are results that do not lead in the direction of survival planet, but on the contrary, to the continuation and deepening of problems (Lowy, 2015, p. 132).

The development of society, the growth of the population and its needs

The population of humanity, until 1970, when there were 3.7 billion people in the world, was at the limit that nature could still control with its self-cleaning abilities. For the first time this year, we exceeded the planet's regenerative capacity. Since then, the carbon footprint, which is used to measure the production of greenhouse gases per capita, has been rising sharply. The ecological footprint, which is used to evaluate the impact of human activities on the environment and natural resources, is also increasing (worsening) (Wackernagel and Beyers, 2019). To meet the needs of the population, which in July 2018 numbered 7.55 billion people, and today (July 2024) already 8.16 billion, we would need 1.75 planets today (2024) until 2030, and according to the population growth trend already needed 2 planets. Or to put it another way, for the year-round needs of the population, the natural resources, or biodiversity on the planet, is renewed only in more than a year and a half, more precisely 1.75 years (Earth Overshoot day, 2024). Wherein some of the most wasteful and environmentally irresponsible countries, among them, would need (USA 5.1 plnet and by the number of the territory of their own countries to ensure needs, Japan with 7.8 necessary planets) (Earth, Over shot Day, 2024). The fact that the USA, in addition to China, is actually responsible for almost 40% of the entire planetary load and the consequences of greenhouse effects on the environment is also a cause for concern.

If we are aware of the fact of the planetary limitation of the planet (Earth), the answer to the problems of survival, and above all the necessity of solutions to environmental problems, is clear. With the growing population and its needs, the biggest problem today is the supply of drinking water due to pronounced weather phenomena, such as the melting of the permafrost, and the consequences of the warming of the atmosphere. The already mentioned when

Due to the radical consequences of human influence in space, radical environmental changes and way of life are necessary.

Neoliberalism and the environment

Liberal democracy, whose policies are formed on the principle of coordinating various party interests, does not ensure more systematic environmental protection (Dryzek, 1990 in Eckersley, 2019, p. 137). The irresponsibility of liberal politics towards the environment and environmental politics, due to a lack of self-criticism, does not give hope for the implementation of effective environmental measures, since green ideas aimed at protecting the environment and criticism of non-ecological practices in space represent for neoliberal

followers only exaggerations against capitalist groups and individuals and limiting development (Klein, 2014).

With the growing needs of the growing number of inhabitants for food, energy resources, increased industrialization and traffic, their pressures on the environment are also increasing. Despite the many development potentials, man's anthropogenic influence is increasing globally and is reflected in all segments in space. Its negative influence is even more pronounced and destructive in nature and space. Over the centuries of development, due to various reasons, we have taken into account natural laws, such as the self-cleaning abilities of nature and limitations in resources, little or not at all. Even the economic and social concepts that have shaped human society to this day were not aimed at protecting the environment, but at its exploitation, as if it were self-evident that nature and its resources can be exploited without limits and without consequences beyond all reasonable limits . Mere profit at any price, without taking into account the social, and above all, environmental consequences, has only deepened the problems in the area through the enforcement of the neoliberal concept.

The concept of continuous growth and making profits is fundamentally based on the exploitation, not only of humans, but especially of natural resources, because according to the Promethean mentality, it comes from the assumption that "natural resources are inexhaustible and that the capacity of the planet to absorb pollution is also immeasurable" (Kirn, 2004). The facts about the limitlessness of nature, which today have been proven false through environmental degradation and human impacts on the environment, were based on the assumption that natural resources can be replaced by technology, science and continuous development. In doing so, the environmental-ecological aspect was neglected, which today, precisely because of anthropogenic human influences, is an important factor and must be taken into account in economic concepts that define the success or failure of a certain society and its development (and thus the social-current neoliberal) of the system). Only by taking into account the environmental impacts, damage and long-term effects of degradation in space, could the real situation of a certain country or continent be assessed. In which rich countries (mainly those with fossil fuels, i.e. those of the Arab, Middle East and Arabian Peninsula) can compensate their deficit in other resources and consumption with funds from the sale of oil and natural gas, which is not the case for poorer countries, which today due to limited development, poverty and injustice, they cannot keep up with the developed world, let alone implement any successful environmental projects.

Even the current indicators on the size of the GDP today do not give a realistic picture of the progress or development of society, without taking into account indicators of environmental awareness, investments in RES, concern for reducing inequality, etc.. For a realistic picture of the state of society in space, it would be necessary according to Kirn (2012 Nature society,...) in the economic sense, it is necessary to consider ecological costs as well. They can, however, through a comprehensive treatment of the problems in the area, where not only the costs of environmental rehabilitation are covered, but also the costs caused by the social consequences of burdening, the lowering of real estate prices (as in the case of Zasavje) and, last but not least, the consequences of burdening through the assessment of the health and social consequences in space, considerable.

Only costs treated and covered in this way should be treated as depreciation or investment costs as part of (economic) indicators in GDP. In other words, they should be counted among the general social reproduction costs, "which enable the preservation of the natural living basis of society", for which all ecosystem functions and services must be included in the production capacity of society (Kirn, 2004, p. 98). Without taking into account the environment and the costs associated with the exploitation of natural resources and the consequences of interventions in space, we cannot talk about any kind of sustainable, sustainable economy. Ignoring the natural conditions and their limits, especially due to the limitation of material and energy flows, does not lead to the fundamental conditions for the preservation of the planet.

Decades ago, the Limits to Growth study (Meadows et al., 1972) proved that sustainable growth and exploitation of resources on a limited planet is not possible. The fact that the number of inhabitants is growing irresistibly, that we consume more and more food and energy for our needs, that we produce enormous amounts of waste and do not solve the burdens caused, are realities in time and space that we must not and cannot ignore if we want to be successful to face problems (in space). It is necessary to be aware that because of chemicalization (Kirn, 2012) pollution, construction, we lose hectares of quality agricultural land every year, which otherwise could be used profitably for food production (Žnidarič, 2015).

The complexity of coexistence and interdependence between all entities on the planet is an essential finding and a fact that should not be ignored. The mutual influence of individual subjects in space is present at all levels, both locally and globally. All environmental activities

have impacts on the planet, the only difference is the time distance when the impacts reach a certain space. The search for solutions for non-loading or its reduction cannot end only with the principle of NIMBY "not in my back yard", but NIABY "not in my yard and not anywhere" (Kirn, 2003). A phrase that the biggest heavy lifters in the big bow avoid. Consideration of interdependence, both the consequences of the burdens and their solutions, must therefore be taken into account when formulating future strategies of existence.

Whereby, in enforcing changes in space, the main role is played by man and his attitude towards everything that surrounds him. Among other things, also to the environment, which was neglected due to the reduction of the importance of its past role in space and the disregard of balance in the triangle at the expense of only two e's, economy and energy, which was neglected until the mid-1980s. If until now the concept of an egocentric attitude (of man) towards nature prevailed, today its opposite in ecocentric - environmentally oriented ethics is gaining ground, which indicates that more and more people are aware of the consequences of anthropocentric, non-ecological behavior, which unites more and more individuals and groups in the idea of the transience of the planet, which without radical social changes on the (limited) planet cannot ensure the preservation of living beings, which have been dying out massively and at an accelerated rate in the last few decades.

Concept 3 E

3 Eje is a term that, in the sustainable energy concept, means the balance of economic, energy and ecological (environmental) indicators. In industrial environments, it means a step in the search for technological and system solutions to reduce the impact of industry on the environment and space. In a simplified way, it represents the concept of balance by adding environmental content within the economic and social system. Due to ecological and environmental neglect, the problems in the region are still the cause of health consequences for people as well as in nature (heavy metals or PTEs in the soil).

If environmental problems in the past and during the period of socialism (looking at the Zasava problems) can still be attributed to the reconstruction and development of society after World War II. world war, ignorance and non-recognition of the consequences of coal exploitation and the impact of industrial activity on the environment, space, and all living and non-living beings, we cannot find any justification for the existing social system, neoliberalism. which strives for individuality and the growth of profits, consumer society and the deepening of differences, with increasingly developed technologies and accessible

information and knowledge, for him. Lack of information about the impacts in and on space, firstly because the existing concept of capitalism (neoliberalism), despite great expectations, did not satisfy the demands of the majority of the inhabitants of post-socialist countries (including the Zasavje region) for a better life (, 2012), and secondly, because instead of reducing differences in society and the failure to recognize and solve negative environmental and social consequences, caused many new ones, which resulted in inequality and increasing injustice (and the loss of the most numerous middle class of the population). Today, the residents are still facing increasing health and economic and social problems.

Completely different social and societal concepts are needed to reduce the pressures in the space. Concepts that include nature and space, social security and justice in the social system, and at the same time represent the beginning of the transformation of outdated and environment- and society-oriented concepts; sustainability, i.e. sustainable development and ecological modernization.

Even technological solutions and new scientific findings, the invention of new materials, machines and devices, did not only contribute to positive effects, but also caused new pressures and burdens in the environmental field. Some chemical preparations that stimulate the growth of crops in agriculture have proven over time to be harmful not only to nature, but also to everyone who consumed such products. DDT, glyphosate and others are preparations that have been proven to cause cancer, but are still used in some places due to lax legislation. Also, the impact of genetic technology and modifications produce more questions and cautions regarding their utility value. The critical scientific sphere is justifiably concerned about the use of genetically modified organisms, as the effects of the changes on the environment and the direct impact on human health are already appearing. Allergies in people who have consumed genetically modified food are more common, and some plants have become resistant to herbicides due to crossings with genetically modified organisms. The planting of genetically modified plants allows higher fertility, but on the other hand, the resistance of pests requires higher and higher concentrations of chemicals to destroy them (pests). Indirectly, the use of herbicides and poisons also causes a direct or indirect impact on living organisms. Due to spraying and herbicides, humans and beneficial insects are exposed to more and more stress. The impacts on the environment are also becoming more intense, as soil and water are exposed to stress.

Sustainability concepts and their impact on nature, environment and society or the neglect of environmental content in industrial society

Sustainability can be defined as sustainable development and ecological modernization. Despite the fact that both concepts define the same problem and overlap in most definitions and measures, there are differences between them. If we define sustainable development as the dominant environmental discourse that arose on the basis of the report of the Brundtland Commission in the mid-1980s, ecological and reflexive ecological modernization are an upgrade of the sustainable concept with clearly defined environmental contents.

Due to the anomalies that have manifested themselves in practice over time, sustainable development can be defined as an environmentally and socially critically flawed concept that has largely remained at the level of theoretical discussions and mere experiments that are supposed to add environmental content to the existing capitalist system. It should be emphasized that even in countries that did not implement classical capitalism in their socio-economic systems, environmental burdens occurred, sometimes with significantly more negative environmental and social consequences. The countries of the former Soviet Union, or the influential areas of the Eastern, socialist bloc, were subjected to environmental and social degradation. First, at the expense of development after the Second World War. Later, from today's point of view, environmentally controversial placements of industries in the environments where they are due to the operation of industries in the area, posed risks for the surrounding residents. The non-critical roles of the residents were supported by concern for jobs, unknown consequences of non-environmental practices, or ignorance and selective information.

In the countries of the socialist bloc, any individual criticism of neo-environmental activities was understood as opposition to the social system, development and progress, where critical persons were labeled as opponents of the existing system.

A similar thing is happening today. The countries that emerged from the ashes of the Soviet Union or formerly federative Yugoslavia were subjected to the plundering of new-age capitalists, foreign corporations, which still today operate according to the principle of not in my backyard and the transfer of risky technologies and procedures outside their home countries. The example of the French multinational company in Slovenia showed that the takeover of the cement plant was only a cover for burning waste (including hazardous waste) and not the continuation of the basic activity, i.e. cement production. Despite the fact that some mainly industrial regions have suffered negative environmental and social consequences

due to past non-ecological and anti-social practices, foreigners have not brought order to such areas. In terms of solving environmental and social problems, foreign capital has only taken advantage of fears for jobs and the socio-economic crisis, to generate as much profit as possible at the expense of disregarding environmental and social norms.

Regardless of the fact that the ruling state and local political structures are supposed to take care of the well-being of the residents who put them in power, what is happening is that politics is subordinated to capital to the detriment of the natural environment and people. This happened and happened in Slovenia and is happening in the countries of the Balkans, or underdeveloped and African countries. The example of Rio Tinto from this year (2024, Serbia and Republiak Srbska v Bih) shows the intertwining of politics and capital, where concern for drinking water, the environment and people is suppressed and retreated at the expense of environmental degradation and profits. Similar stories to those in Serbia and Bosnia and Herzegovina are also happening elsewhere in the countries of the former Yugoslavia. Policies allow foreigners to take over water resources and strategically important food potential, thereby impoverishing their own production and farmers. Slovenia, for example, could be a self-sufficient country, given its stable population, culture and potential in land, water and wood. Of course, this would require systemic solutions at the state level and changes in people's consumption habits, but in the long term, it would not only reduce the country's deficits in the strategic industries of energy and its own food, but also political dependence on the EU.

Sustainable politics, or sustainable development, based on the balance of economic, social and environmental fields, can represent the foundation of existence on the planet through an environmental perspective. Coexistence of first and second nature, (Bookchin) mutual respect and not a hierarchical relationship of man (man) to fellow man, environment and nature. Kos (In three levels of sustainable development, 2004) says "that the very high level of consensus reached on the necessity of sustainable development proves that modern societies, including modern Slovenian society, have retained the capacity for rational self-reflection". In short, almost all of us are mostly aware of the problems of the present time and the intertwining of social, economic and environmental factors, but we are not aware of the necessity of (immediate) action. Becker et al. (1997, in Kos) states that it is therefore necessary to meaningfully observe sustainable development on three levels;

• analytical,

• normative and

• strategic,

Only by taking into account the mentioned levels does it provide relevant possibilities for appropriate decision-making and identification of problems and solutions (in time and space).

If we break down all the levels, the analytical part will give us information about reaching and exceeding the carrying capacity. The normative part is the distance between the analytical findings and the real responses of society in relation to the findings on the consequences of the use of natural resources and the burden on the environment and its consequences. The strategic level, on the basis of analytical and normative work, gives us a practical segment or a strategy for achieving sustainable development. Where, how, when and in what way we will achieve changes in the direction of the concrete goals of sustainable policies, naturally depends on the level, society, problem, social structure and, of course, the permission of local and national politics. Politicians can constructively and critically encourage problems to solutions, or on the contrary, their ignorance can only deepen the problems.

Simplistically, it should be emphasized that the sustainability problem of a certain environment is not necessarily a problem of another environment and vice versa. Therefore, in practice, it is considered necessary to adapt general sustainability principles to concrete (also Slovenian) social conditions (Kos, 2004).

SUSTAINABLE DEVELOPMENT-GENERAL

Today, the concept of sustainable development can be seen at different levels and in different contents. Munro (1995) suggests that it makes sense to separate sustainability, that is, sustainability as a concept and key criterion for evaluating development, and sustainable development as an achievable goal. Ter states (Munro, 1995) that sustainable development is "a set of activities that are supposed to permanently improve the conditions for humanity", or "improve the quality of human life within the capacity of ecosystems". According to (Plut, Plan B), such a defined definition excludes any "permanent economic growth and sooner or later exceeds the universal ecosystemic, biophysical capacities or limitations". Plut (2014) understands sustainable development as environmental, economic and social responsibility, based on an integrated, multi-faceted intergenerational responsibility, which is based on the well-being of humanity within the framework of local and global capacities. The most often cited but rather loose definition is the one given by the World Commission on Environment

and Development, or the so-called Brundtland Commission[2], which, according to one of the definitions, defines sustainable development as; "development that meets the needs of the present without compromising the ability of future generations to meet their needs".

According to the WCED[3], (2015), sustainable development maintains a delicate balance between the human need to improve lifestyles and a sense of well-being on the one hand, and at the same time should follow the conservation of natural and ecosystem resources on which current and future generations depend. Sustainable growth and development are therefore not only based on economic growth, but are designed to generate social and environmental benefits that are based on stability, i.e. within environmental, social and economic constraints. Kirn (2012) also points out that modern civilization has reached a point where we have already reached the limits of the biosphere, and in some places we have already exceeded them, which must be faced and the paradigm of permanent economic growth and the associated burden on the planet must be consciously abandoned.). Kos, (2016) is of the opinion that economic growth must be in balance with social and environmental capabilities. In the article Planet in Slovenia before the challenges of globalization and sustainable development, Plut states "that the economy is environmentally acceptable only if it satisfies the principles of environmental sustainability (so-naturalness) based on ecology". In other words, sustainable development is possible, but only within the framework of the self-renewal capabilities of the environment and nature. If these limits are exceeded, it leads to environmental and social destruction, which leads to conflicts. On a finite planet, with finite resources, sustainable policies can thrive by exploiting someone else.

Neoliberal economists do not agree with the fact that the limitation of resources with increasing needs for equal conditions of survival represents an existential problem of humanity. Nevertheless, the all-powerful mantra of neoliberalism and its most prominent followers (capital, corporations and already enormously rich elites) about the all-powerful market and its principles of operation as the most honest way of society's operation, due to anomalies in space, does not withstand serious argumentation.

Such a way of thinking is an extremely immoral and unethical concept. If all people on the planet had the same conditions and the same initial status, I call it the starting point of life,

[2] Gro harlem Brundtland Norway, was tasked by the UN to formulate a concept for the future development of society in a more environmental direction. This was dictated by the increasingly intense and frequent consequences of human activity in space.

[3] WCED *World Commission on Environment and Development* Komisija za okolje in razvoj

only then could we talk about the same conditions for the functioning of the market. Even then, we could only talk about partial equality, since this equality would be influenced by various factors, such as the culture of the environment, natural conditions, the level of society and the like. Today, as I have already mentioned, the Western or so-called red world cannot play the role of moral and environmental arbiter, as it has created its status at the expense of exploiting others. That is why we cannot and should not accept the ideas of some developed societies that the burden of the current situation should fall equally on all the inhabitants of the planet. Those who created these problems are most responsible for them. These are developed countries, i.e. the biggest burdens, corporations and systems that made it possible for the elites to enrich themselves. Shifting responsibility to others, or the operation of capital in the manner of allocations of risky technologies outside the home countries, only deepens the problems. The problems, if we look at conflicts in the world, are not being adequately solved globally, therefore injustices and inequalities are deepening, and conflicts are intensifying.

The concept of growth must be evaluated within the context of sustainability through its effects in the environment and society. The previous examples of coercion and action in space have shown that the interpretations of sustainability between environmentalists and neoliberal economists are diametrically opposed. The consequences of an unclear sustainable development policy have brought more negative than positive effects to the environmental and social spheres.

Environmental-social intertwining, instead of distinguishing between nature and human action, is also emphasized by Mansfield (2009), when she problematizes the existing development model of modern civilization and suggests adapting the economic sub-system to the capabilities of the wider planetary ecosystem. Bell and Morse (2003) also define sustainable development as integration, interdependence, coexistence of three separate fields, economy, environment and society. According to Omladič (2011), the sustainable model can be defined as an effort to achieve the four fundamental goals of humanity, which enable the satisfaction of basic human needs and the well-being of humans and all other beings, the achievement of a more equal and comparable level of life for all people within (local, regional) and outside regional community. When developing, it is necessary to take biodiversity into account in terms of conservation and the least possible pressure on the environment. As the last goal, Omladič (2011) states that development should not undermine

the possibilities of future generations and at the same time enable them to have a similar or better standard of living than it is now.

The very meaning of sustainability of individual organizations such as Sustainable Seattle is defined as "long-term, cultural, economic and environmental health and vitality", with an emphasis on the long-term "together with the integration of social, financial and environmental well-being". That is, by "improving the quality of life, taking into account the carrying capacity of the planet" (WWF - World Wide Fund for Nature 1991). According to Pearce, Makandi and Barbier (1989), sustainable development includes the creation of a social and economic system which, along with the growth of real income, enables the improvement of standards in education, the quality of health care, and thus the increase of the quality of life.

Seljak (2000) also points out that there are almost as many definitions of the concept of sustainable development as there are individuals and professions from which they originate.

Despite the different definitions of sustainable development, the supporting pillars of the aforementioned development can be grouped into the following denominators. Stabilization of the number of the world population, URE and use of renewable energy sources, re-use - recycling of materials, material moderation of consumerism, reduction of material and energy flows, balance between economy, social and environment, and direction towards development, social, environmental solidarity and ethics (Plan B, 2010). According to Mintz (1992), sustainable development will be achieved when we can introduce participatory democracy, where vested interests will not dominate. So at a time when intergenerational solidarity and equality regardless of skin color and status will prevail, based on respect for differences, raising environmental-planetary consciousness and social norms that will be the same for all living beings on the planet.

If we combine all the mentioned definitions of sustainable development into a common denominator, they all refer to changes in the existing situation, reduction of social differences, preservation of natural resources or potentials for life. The sustainable policy itself, however, is in itself a complex formation of various activities, which should ultimately change our social habits and attitude, not only towards fellow human beings and ourselves, but also the environment and nature as a result.

Neoliberalism, nature, environment and society

Even the illiberal economic and social paradigm, which opposes radical forms of private property and insists on the privatization of everything possible, the constant growth of profits regardless of all visible and felt negative environmental and social consequences, has only deepened the friction in the environment and nature. Although the fundamental philosophy of neoliberalism emphasizes that the management of property is inappropriately better than if the property is owned by debtors or that the state as such is synonymous with bad management, in practice it has been shown that the Friedmanian economic-social paradigm has become a breeding ground for farce. for the open ownership of elites and the creation of individual and elite profits, while inequality has only increased in the majority of the population. The duplicity of the followers of neoliberal politics is also evident in the implementation of the concepts of neoliberalism in practice. If both Friedman and the Chicago boys[4] advocated non-interference of the state in the pocket of property, in practice the exact opposite happened. Duplicity was shown in the case of bank restructuring, where the banks allowed themselves to be restructured by the state. Kirn wrote for these cases; that profits were privatized and losses socialized. Banks are not an isolated example, even the examples of debt write-off for the purchase of previously social property and the destruction of successful social enterprises show that neoliberalism only exploits it to assert its own interests. Social interests, such as the protection of nature and its resources, or responsibility towards society, are merely a cost of capital, which is not in their interest, as it reduces their profits. Therefore, social interests are either neglected or not implemented in practice. Such a dismissive attitude of the neoliberal polity towards the environment and society is indicated by the increasing pressures in society, the environment and nature, which are reflected through increasingly large and extreme situations. Floods, fires, droughts on the one hand and the inexpedient exploitation of the natural resources of the Amazon, African countries for minerals and other areas even in the so-called developed world, such as former industrial areas, show the short-sightedness of such policies, which already today lead to increasing friction and conflicts.

The excessive use of resources and raw materials, especially by the developed countries of the North in the underdeveloped areas of Africa, Asia and Latin America, and the tendency to

[4] The term "Chicago boys" is a synonym for the biggest proponents of neoliberal-Friedman politics, who took the ideas of neoliberalism to the countries of South America, the transition countries of the former socialist bloc, which also include the successors of Yugoslavia. The followers of the neoliberal doctrine had the greatest success in Latin America, where the ideas of neoliberalism were implemented with the help of the violence of military juntas, in the most cruel way. By killing and torturing opponents, or by military and police assistance, as was the case in Chile.

exploit even the last areas of unspoiled nature, the North and South Poles and the seabed, have become the cause of many environmental and social inequalities and injustices. Pollution of the environment, water with plastic and other pollutants, the destruction of soil through bio-chemical and genetic engineering, are becoming a constant in the real world, regardless of the devastating long-term consequences for living and non-living nature.

Throughout the historical and time frame, the development of society moved further and further away from communion with the environment and nature and was more and more focused solely on economic effects to the greatest extent of those who hold economic and political power and thus influence. Even today, the concept of exploitation has not changed significantly. If during the colonial period, the countries of Europe and the developed north exploited the underdeveloped world, exploited and subjugated other areas for the growth and development of their own economies, including through wars and force, today the interests are exactly the same, only the mechanisms of subjugation are more sophisticated. The World Bank for Development and other financial institutions are creating conditions that serve only for a new form of subjugation and exploitation.

The concept of NIMBY or new forms of inequality and injustice

According to Low and Gleeson (2021, p.121), environmental qualities and values are differently distributed. Both on a spatial and political level. They depend on geographical, political and, last but not least, direct production relations, which are just like different development potentials and levels of society. That is why we cannot unify the concepts of environmental action and solutions. In the period of the last few decades, when measurable concepts of environmental actions were developed and residents became more sensitive to the increasingly frequent and intense consequences of non-environmental actions in space, criticism of negative practices became louder. The past unscrupulous and non-ecological actions of industries have come under the increasingly critical gaze of civil society, which has begun to be aware of its rights. The growth of the civilian civil sphere, with the help of science and modern information technologies, has enabled greater supervision and control over the burdeners.

Along with new insights, and above all the consequences of past non-ecological actions, concepts emerged that placed the environment, nature and people in a different framework of various forms of justice. Environmental, political, social, which depend on the level of democratic processes in society. Limited by the level of political culture, the development of

the mental or rational growth of society, but at the same time connected with the material status of the environment. Therefore, the different flashes of justice are not equally expressed or implemented everywhere. In the developed countries of the north, in the Netherlands, they are expressed through forms of governance and participation, while in totalitarian and non-democratic regimes, they are limited and left to the ruling elites.

The development of environmental thinking

However, this does not apply globally to environmental problems. Developed countries, which developed their economies at the expense of long-term use of fossil fuels and the exploitation of other areas (colonies or potentials), despite a relatively high standard, still respond inadequately to the problems of modern times in the environmental aspect, which they mostly created themselves. Some associate environmental awareness with material status, which is partly true. Partly because in some areas it happens that due to economic and social malnutrition and the daily provision of basic needs, one's environmental commitment and criticism are neglected. For some, criticism of non-environmental practices is connected with fear for jobs (Žnidarič, 2024). However, other criteria, such as gross product per inhabitant, do not give realistic results about environmental commitment due to the flawed classification of the measurement. The example of the USA in practice shows that its standard per inhabitant is high, but environmental engagement is low, given the existing operating practice. The gross social product per capita may increase, but statistically speaking, it mostly rises at the expense of the rich, while the standard of the lower class of the population deteriorates. Such statistics, however, do not give a realistic picture in space. The real situation could be evaluated taking into account the standard of the poorest strata, i.e. evaluating not only economic indicators. Happiness, satisfaction, access to basic goods are just some of the indicators that should be included in the statistical treatment if we want to obtain a relevant situation about the conditions in the environment and space.

Development, environmental pressures and environmental justice

In addition to its positive effects, development also carries with it many problems of modern times. The consumption and use of basic sources of livelihood, as well as the production of waste, hazardous substances, and burdening the environment, have negative consequences that already significantly affect the quality of everyday life, or inequalities in society and the environment. Even examples of negative practices, such as the exploitation of foreign mineral wealth, or the transfer of dirty technologies and procedures to developing countries, show that the rise of justice in the developed world is built with the growth of injustice in underdeveloped and economically and politically less influential countries. Modern exploitation, also with global forms of integration, and from an

economic point of view, the search for so-called new business opportunities and business flexibility, only enables easier exploitation of human and natural resources.

Development and environmental injustice

An important role in greater environmental injustice is also critical. Above all, the allocation of hazardous waste, or the exploitation of processes, is an example of the extraction of lithium for batteries, where, due to toxic and environmentally harmful processes, corporations do not do this in their own environments, but move them to others on the NIMBY principle. The example of corporations that also operate in the EU shows that political economic structures are still dominated by purely economic thinking, which neglects ecology, the environment and nature from the 3 E concept.

The economies of the core countries that have the greatest influence are not prepared for the limitations dictated by time and space, but for the continuation of exploitation. If not at home, but according to the NIMBY principle, abroad, where environmental legislation is lax, political power is in the hands of totalitarian systems, dictatorial individuals or tribal communities, who are ready to turn a blind eye to non-environmental and social practices in the face of corrupt practices. The limitation of the planet, the growth in the number of inhabitants, which has been increasing enormously since 1900[5], represents, through the growth of needs and limitations in resources, ever greater conflicts between people and nature. Although there are different opinions about the carrying capacity of the planet in terms of the number of inhabitants, despite increasingly prominent environmental and social problems, most people are not aware of the seriousness of the problem, which spreads from local environments to regional or global areas. Natural hazards and weather extremes, conflicts for resources, and especially the dominant consumer society, where most people deal with material content that they do not even need for survival, push some areas of the world into an unequal and environmentally and socially unjust situation. Poverty on the one hand and enormous enrichment on the other cause inequalities and injustices that lead to general social and environmental conflict.

The consumer imperial society and resource problems

The consumerist mentality of the predominantly developed world, which is still based on the exploitation of fellow human beings, resources, the environment and nature. has caused on a

[5] In 1900, humanity counted 1.6 billion inhabitants, today there are more than 8 billion inhabitants (Worldometer, 2024), and their number is increasing every day.

limited planet that all the inhabitants of the planet face various challenges globally. Considering the reactions of the biggest burden-bearers and political decision-making countries such as the USA, India, China, the EU, one gets the impression that the issue does not affect them. The great powers that have little influence on economic and political life live in the bubble of the so-called imperial way of life (Brand and Wiessen, 2022), mostly at the expense of exploiting the underdeveloped world and new forms of economic "colonialism". If in the past today's largest economies, such as the European ones (Great Britain, France, Germany, the Netherlands, Spain, Belgium), relied on conquering other areas by force and conquering territory, today they mostly opt for economic effects that weaken already impoverished , undeveloped, areas. China, as one of the fastest growing economies, which is already threatening other developed economies, unlike Western influences, is developing its own strategy of colonization and taking over areas. By building infrastructure, especially in Africa, it invests in the economies of underdeveloped countries. In case of inability to pay loans, borrowers become owners of assets (resources or economic material goods) of borrowers. Such negative practices are shared not only by underdeveloped African countries, but also by less influential European countries and regions within the developed world.

Resources and their consumption

In the last fifty years, the consumption of materials from the earth has tripled and will increase by 60% in the next 125 years if the trend of today's consumption continues. According to the UN Environment Program (2024), a quarter of the increased consumption of materials compared to the year 2000 is the result of population growth. Limited resources and increasing population needs are causing a situation where resources are consumed almost twice as fast as the Earth can renew them (Population Matters, 2024). The Global Footprint Network projection shows that we reached the zero point[6] in 1970, when the global deficit began to deepen.

An MIT study (2017) on the consumption of 60 raw materials showed that the consumption of only 6 raw materials decreased. Despite greater efficiency in the use of some raw materials, the reduction led to a drop in prices, greater availability and consumption. The opposite of the desired expectations was achieved. Instead of ecological environmental effects, the market operated according to its own economic laws[7].

[6] In 1970, the world population was 3,695,389,952. The biocapacity was the same as the ecological footprint of 2.7 gha per person. Since then, the deficit has been constantly increasing. According to the latest data, 1.71 planets would be needed for humanity's needs.

[7] The market works according to laws, where greater demands or needs of the market raise the prices of materials and services, while smaller needs lower the price. However, lower prices may lead to greater

The results of MIT research (2017), however, called into question the claim that greater efficiency in the use of resources means less of them.

Also, data from the International Energy Agency (IEA) show that nuclear energy provides only 5% of the total consumption, RES 1.5%, while the global consumption of fossil fuels is still increasing. If the linear trend of increasing energy demand continues, we will need 50% more energy by 2050 than we consume today (Allwood et al., 2017).

More than 800 million people around the world face hunger every day, while 650 million are overweight. Among the main factors of poverty, we can point out the development and unfairness of the economic system, which could not cope with the rapid growth of the population.

Also, the strain and lack of water resources is becoming a global problem that more and more people are facing. In the past, there have already been wars for water resources[8], which will escalate in view of the ever-increasing needs of the population. According to the World Health Organization, more than 2.1 billion people face a lack of clean drinking water, while according to UNICEF (2017), as many as 4.5 billion people do not have adequate sanitation. 297,000 children under the age of five die every year due to poor quality water. The problems are exacerbated by the fact that as much as 80% of waste water is released into the environment without processing or reuse (Filipenco, 2024). Water scarcity, in addition to many actual and potential future conflicts, causes problems of survival and environmental migration[9]. An MIT study predicts that by 2050, as many as 5 billion people will live in water-scarce environments.

Despite the fact that the EU has adopted the so-called green policy, which is aimed at energy and food self-sufficiency, and places more emphasis on renewable resources, problems arise in the implementation of the policy in practice both within the EU and globally. COVID, and above all the Ukrainian-Russian conflict, have shown that European countries will need time to ensure appropriate, and above all, effective measures leading to the Green Transition, due to financial and socio-economic inequality. While the rich countries of the north are investing enormous resources in ecological modernization concepts, other EU members, due to limited resources, cannot equally ensure such a transition.

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consumption of items and thus greater production, which may lead to the antithesis of greater environmental protection.

[8] Israel and the Arab countries behind the Golan Heights, China and Tibet, countries along the Nile).

[9] For decades, droughts, lack of water and reduced survival conditions have represented the migration of people from the Sahel. Sahel is an acronym that defines the countries of Sub-Saharan Africa. Among them are Mauritania, Senegal, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan and Eritrea, which face many problems of survival.

If until the war in Ukraine it is believed that the EU is inclined to limit the use of fossil fuels, the restriction of energy from Russia has shown that the core countries of the EU have not adequately prepared for the time after the fossil era. Due to the shortage and prices of energy products, more and more EU countries, especially Germany and France, are deciding to extend the deadline for the closure of mines, or the construction of new nuclear power plants, even though both are controversial from an environmental, safety and waste (nuclear power plant) point of view.

Despite the fact that, according to Eurostat (2023), the consumption of fossil fuels in the EU has been decreasing since 1991, EU countries still cover an average of 70% of all energy needs with fossil fuels. The most energy from fossil fuels, i.e. 96%, is consumed by Malta, and the least by Sweden (32%) and Finland (38%), while the other EU members use between 50% and 85% of fossil fuels for their needs. the same energy dependence on foreign sources. In general, this means that European countries are half energy self-sufficient.

Energy and political interdependencies

The war in Ukraine has shown that two poles have emerged in the context of support and thus also indirectly of energy prices. The countries that sided with Ukraine, both politically and in the war (by supplying weapons), have different prices for energy products than the (overt and covert) supporters of Russia. Geostrategic shifts in the world are also causing instability in energy supplies. The example of France and the supply of uranium for its nuclear power plants, mainly due to the smaller influence of France in Africa (Niger), causes instability and tendencies to supply the energy product in other areas (Kazakhstan and Uzbekistan) (Maad, 2024), which, due to the regimes of governance, can represent in the long term supply risks. Energetics, in the context of the insufficiency of own resources, thus represent an important strategic weapon of political relations in the world. Last but not least, the example of Saudi Arabia and the reaction of (democratic) countries to the political killings of opponents of the regime in this Arab country showed that economics in world trade still dominates the democratic norms of the civilized world.

Causes of increasing environmental and social problems

Part of the blame for the resulting environmental and social problems lies with the existing environmental paradigm, sustainability (sustainable development and ecological modernization). If sustainable development should mean the balance of economic, social and environmental content, problems arise between environmentalists and classical-neoliberal

oriented economists already when understanding the concept of sustainable development. Sustainable development, due to the vague and incomplete definition of what development basically means, actors in the environmental and economic spheres interpret it differently. Environmentally conscious environmentalists define it (sustainable development) as the limitation of growth and resources within the existing social system, ecologists as a balance within the self-renewing abilities of nature and the environment and in a changed way of life. In other words, the creation of such social systems, which will be directed towards social and community projects, while classical neoliberal followers interpret it as the continuation of growth and thus the exploitation of human and natural resources. for its anti-environmental and anti-social paradigm of growth and consumerism. In the long run, this only means aggravation of environmental and social problems.

Unfortunately, even among environmentalists there is no unified understanding and solutions. Radical measures, which in some places in environmentally degraded environments are necessary for the balance of the three elements, in the energy sense of energy, economy and ecology, still follow the subordination of ecology at the expense of the other two elements, which will be described in more detail in the chapter on 3 E.

If the greater environmental engagement in recent decades can be attributed to the rise of consciousness conditioned by the consequences of past non-environmental practices, the availability of information and the environmental activation of individuals, the environmental sphere, which is critical of negative environmental practices, still faces open or covert opposition from capital. Even the entry of green parties into the political scene, on the one hand, caused the entry of environmental content into political rhetoric. of the developed world, on the other hand, it also meant a softening of the necessary radical measures, since the entry of the environmental paradigm into the sphere of politics and policy meant political bargaining, which in the final stage means a departure from the fundamental concepts of appropriate environmental engagement.

The consumerist philosophy,

Consumerist philosophy which demands ever-increasing production and variety of products with ever-increasing profits, is not aimed at creating solutions, but at deepening conflicts between both developed and less influential countries of the developed world. If we look at the real state of society's needs, the consumerist, imperial society is oriented towards the use of goods that are not necessarily needed by man, or does not always need new material things

because the "old" ones still work. Today, in the production of new articles, recycled materials are gaining ground, but they still require energy to convert them into new devices or materials. In other words, new forms of ownership are appearing, such as sharing products, which are a step in the right direction, but for more effective and efficient results in the field of co-ownership, a change in people's mindset, which is currently still mostly oriented towards ownership, is required.

Even the use of green materials and technologies raises some doubts about their green paradigm. The example of automotive electric mobility represents a blatant example of misleading consumers. Batteries for electric cars, in their initial phase, i.e. extraction of metals, represent a dirtier and energy-wasting transformation than the production of classic petrol or diesel aggregates (Senegačnik, Žnidarič, Vuk, 2021). When introducing electromobility, we cannot even ignore the social aspect of the introduction of green cars, because child labor in the production of metals for batteries (the example of cobalt mining in the Congo) and the loss of jobs in the classic automobile industry due to the transition to electric mobility represent an additional social problem with which a critical society will have to face..

Instead of finding solutions to the resulting conflict situations between man and nature, due to the continuation of the imperial way of life (Brand, 2022), the world is facing a spiral of conflicts that are only deepening. Conflicts for resources and economic political influence on the planet, and above all its unreasonable exploitation and turning a blind eye to the consequences of non-ecological and non-environmental actions, lead only to the destructive destruction and benefits of capital and the privileged few

countries, or its individuals. The critically oriented scientific sphere, which is not burdened by capital, started to warn some time ago that the existing way of life, which began to develop during the period of the industrial revolution, will not enable everyone to have the same life status. The physical limitation of the planet and its sources of livelihood do not allow an equal and fair life for all the inhabitants of the planet. Already Ostrom (2021) wrote in the work Management of the commons that with limited resources that enable decent and fair management and use of resources, any increase in consumption and needs of an individual or society means a limitation of the needs of others. Let it be locally, globally, territorially and geographically socially conditioned. When the restrictions and fair or agreed rules of society are not observed, conflicts arise between exploiters and exploited. Findings through experience and practice so far are that within society, be it territorially, materially or

environmentally-socially defined, those who have power and enthusiasm prosper. Such a model of domination by force, over nature and people, leads to the acquired unjustified and unequal status of individuals and elites, who shape the fate of not only the planet but also our everyday life. Despite the fact that we have already faced negative practices in the past, that we know their negative consequences both in the environment, nature and in society, even today we face many conflicts conditioned by economic interests. Many wars and conflicts throughout history have a basis in the disposal of resources. Be it water resources, energy or the land on which food is grown, the concept of constant consumerism creates ever new frictions on the planet.

Power, influence and decision-making (in environmental and socio-economic matters)

The greatest decision-making power and thus the implementation of changes that would lead to a different environmental and social paradigm are held by the ruling political parties. First, through the creation of laws, and then monitoring their implementation. Despite the fact that the EU, at least on a theoretical level, has formed perspectives that should lead in the direction of greener and socially responsible politics and policies, the reality in practice is different. Basically, it represents the problem of inequality between EU members. The core and most influential countries create polities to which less influential countries must submit if they do not want to be sanctioned. Inequality and subjugation is also manifested in the very operation of influential countries according to the NIMBY concept. This concept manifests itself mainly in the transfer of dirty technologies and procedures in less influential EU countries and countries that want to join the EU. Thus, not only undeveloped countries, but also countries within the EU are subjected to forms of environmental injustice.

The uneven approach to the implementation of EU directives and laws also arises due to the economic and social differences between individual members of the union. All of them do not have the same financial basis and resources for implementing changes and are therefore more vulnerable to various anomalies that put them in an unequal position compared to other countries. The covert or overt power and interest of the core countries can be especially felt in the acceding countries (the example of the Western Balkan countries), where once again the policies of the decision-making EU countries dictate the conditions, or they pursue or force the interests of their own economies. The consequences of the resulting environmental and

economic anomalies are reflected in the well-being of the countries into which some of the EU countries join. The problem in the context of ownership, or the pressure of capital on less influential countries, is the fact that more and more resources are passing into the hands of foreigners, who are merely depleting these resources, while the problems in the environment and space remain with the inhabitants of the exploited countries. also , resources and social interests of the acceding countries. The example of the use of lithium on the border between Bosnia and Herzegovina and Western Serbia shows the concept of negative, environmental and social action to the detriment of the residents living there. Especially in the case of Rio Tinto, the operation of capital and policies that work against environmental and social standards can be seen. Even the incineration (also of hazardous waste) in the case of the multinational company Lafarge, now Holcim in Zasavje (Slovenia), shows how far the sovereign state policy of a country is subordinated to foreign capital.

Democracy and the influence of capital on political action

Despite the guaranteed parliamentary democracy of the modern, developed world, at least on a theoretical level, which is supposed to mean decision-making by all interested actors in matters important to society and the environment (Gosar, 1934), in practice only the interest of capital to generate profits and continuous economic growth still dominates. On a limited planet, where there are physical and material limitations in the sources of sustenance, energy, and land, and with an increasingly numerous palnetrane population, the problems with securing resources in the period after 1900 are only intensifying. Ostrom (1990), through an analysis of the community's activities, concluded that unlimited exploitation of resources is not possible in a limited space with limited resources. Otherwise, in practice for centuries there have been some communities that dispose of social property, be it pastures, water or, in recent decades, fishing activities in a certain area, but they operate with a limited number of members that does not change, or with precisely defined rules actions that all actors are familiar with and must respect. A prerequisite for this type of operation is certainly compliance with the rules, transparency of operation, and above all, an honest attitude towards oneself and fellow members of the group.

Unlike the neoliberal consumer world, where competition and dominance of power and influence and private interests are encouraged, communities operate on a completely different basis. On cooperation, respect, solidarity, where, last but not least, limitations in the environment and space are taken into account. However, we cannot claim that the consumer system takes into account the restrictions, because in the neoliberal policy, this only increases

the demands for the privatization of everything possible, which in practice has turned out to be a bad social journey. Resources such as water (the stock market in Australia) or certain services became significant assets when they were transferred to private hands, the quality of services and the safety of systems (the example of railway transport in the UK) decreased mainly due to the desire for the greatest possible profits.

With the development, the consumer mentality of the society also affected the decision-making processes. The role of the state, from the creator of laws and the provision of social benefits, changed to a service to capital. Capital or corporations have an increasing influence on the formation of policies, or the provision of their interests.

Current policies and policies, with the exception of the original indigenous communities, which were or in some places still are oriented towards the interests of the communities and the provision of only their basic needs, are implemented only in the direction (be they at the national or global levels) of ensuring economic effects and interests of capital. In other words, they are aimed at promoting a consumer society and continuing the exploitation of resources.

Neocolonialism and new forms of subjugation of weak and politically less influential countries

If in the past the exploitation of colonies was an established practice and for the core, colonial powers, the method of exploitation by force was the basis for their development, today the methods of exploitation are formed around global banking organizations. This does not mean that capital and politics renounced the use of force when their interests were threatened. It just means designing the exploit on a different basis. The examples of violent changes in the social, economic and political system in Iraq and North Africa show the way the politically energetic interests of the West, or the developed world, operate by force. The West still uses conflicts and wars to assert its own interests. While, as already stated, China, as the second (current) economy of the world, uses different concepts of political and economic subordination. (Credits to African countries most often end up with ownership shares of Chinese capital in African mines or their energy potential, which the world's fastest growing economy needs. OUT? In both systems, regardless of their political diversity (China through state totalitarianism, while the West through classical neoliberalism) of management, only economic profits and the desire for continuous economic growth prevail. For both neoliberal and consumer-oriented paradigms, the provision of sufficient resources is only different, and the final effect is still a deepening of inequality and injustice, be it through the social or environmental anomalies of subordinate countries.

Despite the fundamental postulates of democracy and, at least at the theoretical level, the orientation of democratic states, the provision of the benefits of society, ultimately over the environment and social interests, economic interests still prevail.

Various environmental and war conflicts, political crises and social problems represent an evil pit for forging profits for the followers of the neoliberal economic paradigm (Klein, 2014).

Even the energy crisis, which arose in Europe due to restrictions in the supply of Russian energy products, represents an opportunity for war profiteers and non-energy brokers to make huge profits. Last but not least, Russian energy products are still sold to European countries, only the routes are longer.

Environmental, social, energy, which shaped environmental and social relations. The renaissance, however, is definitely marked by the period of the fossil era and the industrial revolution, which enabled humanity to make a developmental leap at various levels of life. This positive economic and social development, however, caused significant negative consequences for the environment, as a neglected segment.

Due to the neglect of environmental content and the unbridled exploitation of natural resources and a society that relied only on two elements, energy and economy, conditions have arisen in the environment and society, which are manifested in the rise of global temperature, degradation of the environment and, in some places, due to the lack of resources, which in some places already affect the existence of individuals.

The examples of the attack on Iraq and the destabilization of the situation by Western powers in the northern and central parts of Africa show that corporations, in order to achieve their economic goals, reach for even the most drastic goals, bypassing the official policies or norms that have been in force in the past. The implementation of the policy of force and, if there is no other way, also by replacing disobedient regimes with the West, despite negative practices from the past, such as the introduction of the neoliberal system in Chile or the overthrow of legitimate governments in Latin America, has shown that in the political and economic sphere of the world, the economic aspects of the developed always dominate. Of course, the price for their interests is paid by the countries, and the inhabitants of the threatened countries are not to blame.

Environmental injustices, however, have resulted in negative impacts on the environment and, consequently, on society, which are already significantly affecting the existence of living beings on the planet.

Despite the fact that the negative consequences of past non-ecological practices have occurred in the environment, which are the cause of human migration and numerous and growing social and environmental ecological conflicts, the global trend is still directed towards the growth of energy use and their unbridled consumption. As a result of the use of fossil fuels and inadequate technological systems in industry, in the production of electricity and individual use, the trend of increasing energy consumption will intensify until 2040. Only the use of coal is expected to stabilize, while the use of oil and other energy sources is expected to continue to grow (Researchgate, 2021).

Energy resources and energy poverty

Human beings need energy in various forms for their existence. Like all living things, it is fed, lived, warmed or indirectly needed for the production of goods. During the industrial revolution, the invention of the steam engine marked a step towards the use of fossil fuels, which still shape modern society today.

In the period of the last seventy years, various forms of energy potentials have appeared, which have in common that energy is consumed through transformation and consumption. Basically, resources can be defined and treated differently. On the one hand, we can consider them through their sustainability, or renewability. Although various definitions of renewable energy sources have recently appeared, which depend on natural and especially weather phenomena, on the other hand, their loss must also be taken into account. This so-called entropy represents non-christian energy that is lost during the secondary conversion in the processes of obtaining useful, working energy. Both consumption and entropy cause the need for ever-new amounts of energy resources or their renewal. Despite the fact that science, together with industry, is developing new energy systems, i.e. energy storage systems, which would accumulate energy when the conditions for obtaining it are favorable (for example, hydro or solar energy, or renewable resources), most industrial production still relies on fossil resources. In particular, India, China and the countries of the former Eastern Socialist Bloc are major consumers of coal, which in the context of space pollution is the biggest culprit for environmental problems. In the global environmental concept, which is supposed to follow a lower consumption of fossil fuels, the largest economies in the world, China, India, the USA

and partly also the EU, represent economies that are not aimed at greater environmental protection and limiting greenhouse gas emissions, but on the contrary, cause deepening of environmental and social problems. Although China is developing many modern energy systems with an intensive economic policy, its industry still relies mostly on the production of electricity from coal (60%), (S&P Global, 2023). In addition to alternative sources, China should direct energy production by building new nuclear power plants. By 2025, 150 reactors are expected to be installed. Some European countries are also reportedly deciding to build new nuclear power plants (Koražija, 2024).

In the case of energy flows, last but not least, their role in the production of environmental disasters is also important. Coal, oil and natural gas, as the most characteristic products of the fossil era, represent negative environmental and social consequences in the almost two hundred year industrial age due to the processes of their transformation and use. If we look only at the use of coal and minerals, their use in the environment is a factor of direct and indirect impacts in the environment due to defective technological processes (filtering devices and cleaning procedures) in former, as well as existing mining environments.

Sulfur dioxide, as a by-product of coal, with dust particles and especially in connection with water as acid rain, caused some influential areas of factories, especially thermal power plants, with the destruction of the environment, nature, trees, and indirectly also affected the health conditions of residents exposed to dust and gas in the influential areas of factories. Degraded surfaces below and above ground, heavy metals in the soil, today we call them potentially toxic elements, have many negative consequences that reflect in the quality of living, health and the social and economic picture of the degraded area.

Oil extraction and its conversion into useful aggregates also pose environmental risks. The cases of the Alaskan spill, or the sinking of oil rigs, represent a fundamental environmental exposure that places exploitation areas at an unequal position compared to other non-industrial areas. Oil spills and degraded land have pushed disaster areas into environmental and social injustice.

Even the gas supply crisis has shown in the last few years that renewable energy is a sensitive political and environmental issue that does not actually have a positive effect on the solutions to existing environmental problems.

If the failure to solve environmental problems in the past could still be attributed to ignorance about the negative consequences of pollution in space, defective technological processes and ignorance, today, in the modern information age, ignorance cannot be the answer to failure to solve environmental problems. Nevertheless, the strain continues. Resource consumption does not decrease. Also, socio-political conflicts and especially the war between Russia and Ukraine, and the resulting limited supply of Russian energy products, represents a backward movement for European countries in their efforts for green transformations. The largest European economies, such as Germany and France, are leaning towards extending coal mine operations and opening new coal-fired thermal power plants, and in France, building new nuclear power plants. This raises the question of the effectiveness of the EU's green concepts.

The problem of energy poverty on the design of green energy concepts

The conflict between the economy and the environment is most evident through the continuation of unsustainable and non-environmental policies. Doubt about green environmental energy concepts is encouraged by the use of dubious energy measures, which, like electric mobility, through the production of metals and batteries, in the intermediate stages of production and production are more burdensome on the environment than classic systems and aggregates. Therefore, we can agree with Kirn (2014) and environmentally critical environmentalists and ecologists, who see in the new systems only the continuation of the neoliberal economic paradigm in a green guise. The ineffectiveness of the focus on more environmentally acceptable policies is reflected in deficient global policies, in which the effectiveness of implementation in practice depends on the financial possibilities of individual communities. The example of electric cars, which due to their price are accessible to financially well-off residents, points to the fact that more efficient and economical systems of resource use depend, first of all, on the economic ability of the residents, and on the other hand, on political incentives that shape the shifts in socio-economic relations in society.

The problem of energy poverty is represented by socio-economic inequality, which only deepens the crisis for some sections of the population, who are already facing existential hardship. High prices of energy products, such as the period when the supply of Russian gas was reduced (political decisions), caused an additional burden on those groups that were already facing problems of survival.

The irresponsibility of politics towards solving conflicting, social-environmental situations is also manifested in the formulation of short-term policies, which, despite the all-visible and

felt consequences of development and growth, on a practical level do not achieve long-term, effective, global policies that would follow the policies of reducing conflicts between the environment , society and nature.

The third and not the least important segment represents the dependence of individual countries on foreign resources. With crisis situations in the world, such as wars, natural disasters, health problems (covid, etc.), it leads to escalations not only in the supply and price of energy products themselves, but also in the deepening of the economic problems of socially endangered population groups. Therefore, independence from sources from abroad is a fundamental goal of every country, which the EU has recently found to be essential. The search for one's own sources of energy, food, represents the foundation of the green transition.

If, in the context of reducing the impact on the environment and nature, we focus on the water and carbon footprint, countries with their own potentials can significantly reduce environmental pollution. Despite the fact that, for example, the carbon footprint per inhabitant does not give a realistic picture of the loads in space, the example of China, which achieves a low value per inhabitant due to its abundance, but extremely high in the global area, can still reflect some framework of loads and thus greater or worse environmental engagement of individual countries.

Participation

An important factor leading to a less conflict-ridden society of the future is the cooperation of actors in policy making. Participation, or the cooperation of actors in finding solutions to the resulting social and environmental problems in the area, is the cornerstone that leads to consensual solutions that are acceptable to all actors. The examples of countries in the developed north, which have put such a model (sensual practices) into practice, have resulted in minor conflicts and acceptance of changes and solutions, even if these initially represented certain social shifts from the comfort zone. On the contrary, the examples of practices mostly carried out by transition countries, which in the nineties of the last century passed from a one-party system to a so-called democracy, when the civil public and a constructively critical public sphere are eliminated from the processes of decision-making and the search for solutions, are examples that only deepen conflicts . Also, in these countries, which includes Slovenia, changes, if they occur, are negatively received by the public.

The participation of the public, be it critical, is especially important in projects that relate to living space and sources of livelihood. Examples of placing energy projects in the environment and space, such as wind or hydropower plants, are particularly sensitive.

Despite the fact that there is a concept of parliamentary democracy, which is supposed to be socially responsible, as it consists of elected representatives of the people, the existing system has some shortcomings.

In practice, it represents the limitation of control over the functioning, above all, and the deficiency of democratic processes, which is already evident in the election of people's representatives to governing bodies, which are supposed to form the polity and the police.

If politicians are chosen by the people and are supposed to ensure the interests of the people who elected them to the decision-making structures, the problem is the control over the activities of the deputies in the parliaments. The influence of the voters on the elected representatives of the people ends when the elections are over. Although, regardless of political affiliation, representatives of the people are supposed to defend the interests of the communities they come from, in practice this is mostly not the case. The interests of political parties, lobbies or influential individuals are defended, which mostly collide with the interests of the community or society. The solution in this case would be reformed electoral legislation, where the function of recall, or replacement, would be implemented. Of course, it would first be necessary to provide clear rules that will prevent the influence of non-social interests on the possibility of recall

The connection between energy and political dependence

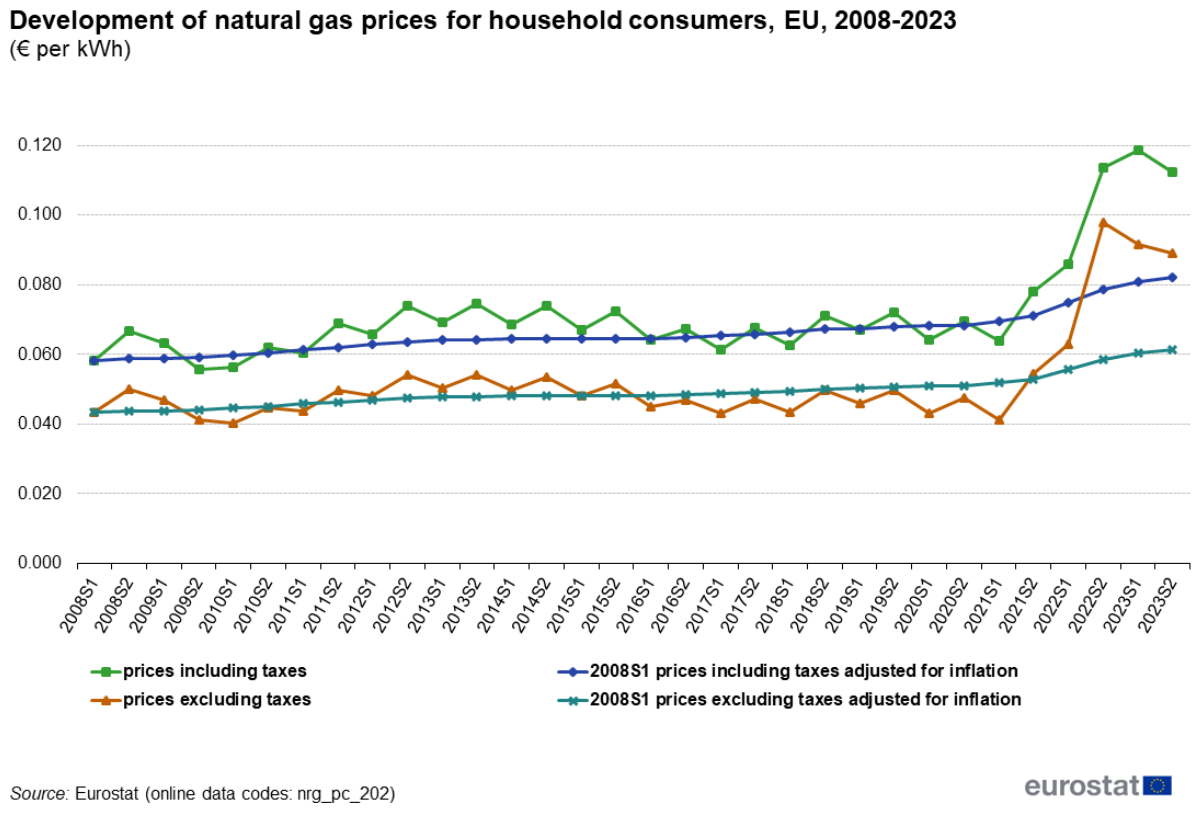
Most of the developed countries, due to consumer-oriented society and its needs, face a shortage of energy products and dependence on external providers. That such dependence can be not only harmful, but also economically and politically sensitive, was shown first through the so-called gas conflict between Russia and Ukraine, when Russia limited the supply of gas due to non-payment by Ukraine, which did not distribute it to Europe in the agreed quantities (Politico, 2014).The most obvious example is the escalation with the supply of energy products to Russia in the Ukraine conflict, when the countries of the European Union, due to their support for Ukraine, received enormous bills from Russia for the possible supply of its energy products. The result of this was that countries friendly to Russia, such as Serbia and Hungary, had significantly lower gas prices compared to hostile ones. According to Eurostat (2024), the war in Eastern Europe caused the price of gas for households in the EU and some non-EU countries, such as Liechtenstein, North Macedonia, Serbia, Türkiye, Bosnia and

Herzegovina, Moldova, Georgia and Ukraine, to rise by almost one hundred percent. The crisis with energy products has shown that Europe, and especially the EU, is in an extremely difficult position due to its dependence on external supplies of energy products in various crisis situations. Even the COVID crisis has shown the sensitivity of supplies of both food and energy potentials, if countries depend on the logistical, political or transition potentials of others.

Slovenia and absorption of energy flows into the supply of energy sources - or RES[10] in practice

The Covid-19 crisis and the conflict in Ukraine showed that countries underinvested in their own energy potentials and were significantly dependent on sources from abroad. The indispersion of resources and unpreparedness for various crisis scenarios showed that most EU countries are still sensitive to problems over which they have no direct influence. This economic dependence, however, as we have already seen in cases related to Ukraine, it leads to pronounced political dependence, which also affects the supply and price of energy products.

Picture 1. EU, gas consumption and prices for perido between 2008-2023



Source: Eurostat (online data codes: nrg_pc_202)

eurostat

[10] RES Renewable Energetic Sources

The crisis with energy products from Russia has caused more and more countries to turn again to the reuse of coal and thus to the continuation of loads.

The state of dependence on foreign resources also in the European Community has caused more and more countries to focus on finding their own energy potentials and therefore on greater self-sufficiency. But even this transition is not without consequences for nature and the environment. The transition to renewable sources of energy produces many questions about the ecology and sustainability of such development, but at the same time it requires a mental leap both on a personal and social level.

Despite the fact that the transition to RES and self-sufficiency represents a positive shift towards a greater environmental and social future, it also requires changes in human habits. Above all, changes are needed in developed and consumer-oriented societies, which according to most indicators are the main culprits for the growing global social and ecological conflicts. The transition to RES does not only require the use of cleaner and more environmentally acceptable sources and changes in technologies, but must be based on solidarity on a global level with those who cannot provide such measures.

The transition to a more ecological and green energy future is very challenging for some individuals and countries due to financial malnutrition. Poverty and inequality prevent even development even in developed countries. Therefore, the introduction of these measures in developing countries encourages the moral and ethical responsibility of developed countries to subsidize poorer ones, if not otherwise, at least due to the fact that developed countries built their development on the exploitation of colonies and underdeveloped countries.

Energy poverty

The problem of energy poverty refers to countries, environments and individuals who, due to financial incapacity, cannot ensure their own investments in energy renovation systems. If we want to solve global environmental and ecological problems, it is therefore necessary to switch to RES, but with some essential points, so that in practice no additional burdens are caused in the environment and space.

Long-term energy policies must be based on the dispersion of resources, which, even in unpredictable political conditions, enable a sufficient supply of energy to consumers.

Despite the fact that the EU already adopted measures in the post-covid crisis, which should enable countries to deal with crisis situations more easily and which should follow greater energy self-

sufficiency, when some measures are introduced into the environment, concerns arise about their environmental and ecological orientation .

The very definition of RES comes from the renewable domain, meaning that resources can be renewed regardless of their use. However, this definition is rather loose, as it does not contain limitations through the concept of sustainability, which is based on the balance of economic, energy, and above all, environmental contents that have been neglected in the past. OVE also does not define exactly what renewable resources are and what they are, or rather it does not deal with the question of how we got this so-called green energy.

Considering the many negative consequences of green technologies, according to environmentalists and ecologists, green projects are only a cover for the continued exploitation of resources and nature, or the enforcement of capitalism with a green face, which is nothing more than the continuation of the neoliberal, consumerist and profit-oriented growth paradigm (Plut , 2014; Kirn, 2012, 2022). If we take e-mobility as an example, this is certainly true in the initial phase of metal production and battery construction for electric cars (Senegačnik, Žnidarič, Vuk, 2020).

Other technologies and procedures, especially interventions in the environment, if we are talking about the production of energy from hydroelectric power plants, are also environmentally harmful, and at the same time represent a distinctly negative impact on the environment and the existing animal and plant life.

Hydropower plants and the environment

Although HPPs are supposed to represent one of the pillars of renewable energy production, in reality this is not the case. We ecologists are of the opinion that energy from renewable sources represents a truly green execution, just like e-mobility, but in both cases, due to the consequences at the beginning of the tap, viewed as a whole, the production is extremely harmful to the environment, nature and people.

In order to obtain hydro energy at all, it requires interventions in the environment, which are far from a sustainable policy, which is supposed to represent a balance with environmental contents. Damping the river and placing the dam in the natural course of the river itself represents an intervention that has significant negative consequences for the environment, the river itself and all living things that live in the pristine river. What is even more important is that many underground sources of drinking water are fed from the rivers, which can significantly change their water quality when they are dammed.

The silt that forms under or in front of the dam contains substances that significantly change the quality of the water for the worse, because toxic non-degradable substances accumulate in it due to the river's limited self-purification abilities.

HPP construction and (un)sustainability

Despite the fact that the natural potential is financially immeasurable, at least in terms of intrinsic values, and at the same time we are witnessing the growing consequences of human negative environmental practices, which are manifested in the degradation of nature and the environment, there are still tendencies to continue non-ecological and non-environmental practices.

Under the guise of using renewable resources and green energy, in terms of sustainability, there are also today in Slovenia tendencies to build the last free-flowing sections of the Sava River with hydroelectric power plants.

According to FIP (2024), dams are artificially established barriers, the work of human hands, which have restricted free-flowing rivers with dams, barriers and locks, to ensure water supply, obtain energy, enable easier navigation or increase flood control (the example of the Netherlands). In the case of Nozozemska and its specific conditions, due to the depression and the higher ocean level, protection against floods withstands the thesis of increased anti-flood safety, but elsewhere, according to Toman (2022), this does not withstand serious consideration, since according to him, floods are solved in the contributing area of the river, in the upstream part of the streams, not in the lower ones and even less by building dams or by building HPPs. The example of floods years ago in Slovenia, when deliberate releases of water in Austria on the Drava river flooded a large part of the Drava field, is a practical example that dams and HPPs are not built for these cases. I personally think that artificial, unnatural interventions in rivers actually only helped to produce problems and not to reduce them.

Types of obstacles

There are many different types of obstacles on rivers. Dams are one of the common and well-known types. The rest are dams, locks, culverts, crossings and ramps.

Dam: A structure that blocks or restricts the flow of water and raises the water level to form a reservoir

small weir: a structure that regulates flow and water level, but often allows water to flow freely over the top

Sluice: A movable structure whose purpose is to control the flow and water level

Culvert: A structure that allows water to flow under an obstacle

Ford: A structure that creates a shallow place with good footing where a river or stream can be crossed by wading on foot or by vehicle

Ramp: A ramp or bed sill designed to stabilize the channel bed and reduce erosion; recognizable by its stepped shape.

Source: AMBER (2020).

Such unnatural barriers reduce the ecological connectivity of the watercourse, hinder the flow of water, nutrients and sediments, reduce the self-cleaning of rivers, and for living beings, they represent an obstacle to their movement. Large dams completely change the character of water bodies, turning rivers and transitional waters into reservoirs with prevailing lake conditions.

Pressure drivers

There are several sources of point pressures that are generated from different drivers. They can be divided into energy, agricultural, industrial, environmental and human social segments and urban development.

• production of energy from water - large or small dams use the energy of moving water to produce energy

• irrigation systems in agriculture - in areas where there is a lack of water resources, basins are created for irrigation systems

• smaller dams and canals - they regulate the flow of water as well as its retention

• industrial needs - some industrial facilities have water reservoirs built in the immediate vicinity, which are used for e.g. cooling systems

• flood protection (most typical Netherlands)

• availability of water for human needs (drinking water, basic needs)

• recreational activities such as fishing can significantly change the quality of water surfaces through secondary impacts (non-native species of fish and other creatures, non-indigenous species and algae).

According to the EEA (2018), barriers represent the most common pressure on surface water. If European countries are removing them due to economic inefficiency in terms of reconstruction and restoration, and their demolition is supposed to reconnect 25,000 km of river sections (Baecher et al., 1980; Whitelaw et al., 2002), in Slovenia, despite the high density of barriers on rivers, there are tendencies to increase (Pengal et al., 2022). Among the most threatened areas where energy companies want to build new HPPs is the Balkans. According to RiverWatch (2022), the construction of as many as 3,281 facilities is planned in the Balkans, 108 of them are under construction, and 1,726 of them are in the operational phase. Many of these facilities are to be built in protected and environmentally sensitive Natura 2000 areas, or other environmentally sensitive areas.

Planned facilities and facilities under construction in the Balkan countries;

• Slovenia: 370 facilities planned and 1 under construction

• Croatia: 149 buildings planned and 1 under construction

• Bosnia and Herzegovina: 374 facilities planned and 35 under construction

• Serbia: 803 facilities planned and 20 under construction

• Kosovo: 89 facilities planned and 10 under construction

• Montenegro: 93 buildings planned and two under construction

• North Macedonia: 180 facilities planned and 12 under construction

Source: RiverWatch (2022)

Pengal et al. (2022) identified 61,781 barrier records in the Danube and Adriatic basins. 51,859 in the Danube basin (Dp) and 9,922 in the Adriatic basin. Considering the length of Slovenia's river network (44,580.80 km), we have 1.39 barriers per river kilometer in Slovenia. The barrier density for Dp is 1.37 and for Jp is 1.47. In both cases, the numbers are high compared to other areas in the EU.

State	Density of barriers (no./km)	Assessment of the number of partitions
Austia	0,51	8.607
Suise	8,11	171.693
France	0,35	63.932
Slovenia	0,13	1.321
Italy	0,49	65.756
Serbia	0,59	14.901

Table 1: Density and assessment of barriers for selected European countries (Belleti et al. 2020 in Pengal et al., 2022).

Because, according to WWF(2020), the destruction of aquatic environments is three times faster than the destruction of terrestrial ecosystems and since 1980, interference with freshwater ecosystems has caused an 84% decline in the populations of freshwater vertebrates (mammals, birds, amphibians and fish), we are environmentalists and an environmentally oriented profession against the construction of power plants, which would significantly limit the last parts of free-flowing rivers, and especially the central part of the Sava River, which offers shelter to many indigenous animal species. At the same time, the unnatural intervention that the construction of HPPs on the middle Sava would represent would significantly change the living habitats along the river. Formerly indigenous species would die out due to poor living conditions or would be replaced by other, often non-native species. Above all, the fish population would permanently change the water structure of previously flowing waters. An even more important negative factor is the decrease in water quality and impacts on drinking water reservoirs along the river. Due to the interrupted vertical water flow and the accumulation of dangerous substances in the sediments next to the dams, according to the practice of the existing dams, additional pressures would appear on the water sources that supply the inhabitants of the cities that lie along the river.

According to the EEA (2018), unnatural barriers are also the cause of pressures on surface waters, affecting 40% of water bodies. Hydromorphological pressures were found to be among the main reasons for not achieving good ecological status in other river basin management plans (RBMPs), as they are important pressures for 34% of European surface water bodies in 29 countries (EU-28 and Norway) (EEa,2021)).

Interventions during the construction of buildings in the environment would be environmentally critical. The buildings themselves, and especially the dams, would visually and spatially significantly change the environmental picture of the landscape, which is now still surrounded by nature. Last but not least, the negative consequences of interventions on the river are most noticeable at already existing facilities, especially in the lower part of the Sava River (HE, Sevnica, HE Brežice and others).

The fundamental problems of dams on rivers and their consequences in the environment

According to Toman (2022), the fundamental problems of barriers on rivers are;

the damming of rivers firstly affects the longitudinal connectivity of the system, interrupts the connections of the lower and upper streams, as a result it greatly changes the living communities in flowing waters, which significantly affect the quality of water sources for drinking water supply

• the consequences of changes in the course of the river affect the reduction of the river's self-cleansing capacity. In fast-flowing, turbulent rivers, the self-purification of the river can reach up to 30%, which means that the river can "digest" up to 30% more load (mainly organic) than it naturally enters the river. On the example of the Sava River, the self-cleaning capacity was evaluated 30 years ago and actually reached somewhere around 20% (Toman, 2020).

• due to a change in the flow, there is a secondary load, which is the result of the deposition of dangerous substances in front of the barrier, the passage of toxicants into the food chain (via algae, aquatic invertebrates all the way to fish). Due to changes in the main food pathways in the dammed part, eutrophication occurs, which is latent (hidden) in flowing waters. In the case of the Sava, this is already evident in the reservoirs of the lower Sava, not to mention the reservoirs on the Drava, as we still do not have tertiary treatment included. The removal of nutrients (N and P) is also negligible.

• barriers change productivity, i.e. one of the most important processes in flowing waters from the point of view of living communities and habitats. As a result, the riverbeds in the lower part deepen (an example can be the Mura due to accumulations on the Austrian side), which further changes the communities and consequently the self-cleaning ability.

• it is also important to point out falsehoods regarding flood safety. HPPs are not built for flood protection. Flood safety is not solved at the end but at the beginning of the tap, i.e. in the hinterland of streams and smaller rivers that merge into larger water systems.

• last but not least, any accumulation represents a change in metabolic processes. In a silty accumulation, a large part of the sediments are organic substances, because the conditions are

often anoxic, as methanogenesis occurs, the product of which is the greenhouse gas methane, which is 10 times more environmentally impactful than carbon dioxide from the point of view of greenhouse gas production. (Toman, 2020).

Toman is critical of human impacts on water resources and ecosystems as he says;

"We always like to talk about warming, but on the other hand, we uncritically and ignorantly change water environments and talk about sustainability. We only permanently destroy the river with HPP, a disabled river, otherwise it can still live, but its life is not worth it".

Various experts have been dealing with the many negative impacts of barriers for a long time (Liermann et al., 2012), but they entered the wider public discourse only in the last decade. The consequences of placing barriers on different watercourses are similar and can be generalized to some extent, but river ecosystems are unique and complex, so the consequences of interfering with them are also complex and specific. In other words, each individual barrier has its own consequences. Rosenberg et al (2000) summarized the cumulative impacts of barriers as follows:

• establishment of new reservoirs within the water cycle of the basin (Petts, 1984);

• changes in natural water and sediment flows and seasonal patterns of river flows (Varosmarty and Sahagian, 2000);

• changes in ecosystem processes: nutrient cycling and primary production (Pringle, 1997; Rosenberg et al., 1997),

biogeochemistry of downstream and coastal areas (Ittekkot et al., 2000);

• fragmentation of riverine habitats (Dynesius and Nilsson, 1994) and associated/dependent organisms (Dudgeon, 2000; Pringle et al., 2000);

• Deterioration and loss of flood plains and riparian areas downstream of barriers (Nilsson and Berggren, 2000);

• deterioration and loss of river deltas and estuaries (Rosenberg et al., 1997) and lowering of sea level (Chao, 1995);

• deterioration of the state of irrigated terrestrial ecosystems and related surface waters (McCully, 1996);

• problems with drainage, eutrophication, pollution and contamination (Zalewski, 2000, 2002);

• contamination of food chains with methylated mercury due to altered microbial activity in flooded areas (Kelley et al., 1997);

• cyanotoxic contamination of reservoirs, river water and trophic levels (Zalewski, 2000);

• genetic isolation as a result of habitat fragmentation (Pringle, 1997; Neraas and Spruell, 2001);

• impacts on biodiversity (Master et al., 1998);

• destruction of fish habitats and populations, and consequent decline in fishing (Petts, 1984);

Considering the negative impacts of HPP construction on the environment and living and non-living nature, the construction of HPP and the consequences of building interventions on the environment and space are unsustainable policies that have nothing to do with sustainable concepts. Deception by capital about the so-called green hydropower is the fruit of a materialistic and economically profitable view, which, considering all the listed negative consequences of intervention in space, has only one sign, i.e. the continuation of burdening and exploitation of nature and the environment. From an environmental point of view, the sustainable growth of energy consumption and thus energy production is unsustainable and does not lead to a reduction of the burden on the environment, but on the contrary, to its greater degradation (Kirn, 2020, Žnidarič, 2023).

Solutions related to barriers on rivers and streams

The construction of HPPs on free-flowing rivers is definitely not a solution for the energy policies of individual countries. Smaller interventions in the environment are represented by other alternative sources, such as solar power plants, heating systems, geothermal energy, wood and wood biomass. Of course, it must be emphasized that when implementing RES systems, all the best technical standards or BAT must be taken into account.

Another measure is reduced consumption. The Western, so-called developed world is extremely wasteful when it comes to the underdeveloped. For example, the US has consumed more fossil fuels and minerals in the past 50 years than all other countries combined. Instead

of people talking about reduced individual consumption, the consumption trend continues. According to Kajfež Bogataj (2020), Slovenians, for example, should reduce their consumption by half, considering the impact on the environment and the carbon footprint, if they wanted to cover consumption with their own potential. Now most of the countries of the developed north are heating and spending at the expense of other less developed countries. At the same time, the developed forget that they are to the greatest extent also to blame for more and more intense and frequent weather phenomena.

In the case of HE, there are solutions, especially since many countries in Europe have already realized that the mere construction of dams, their maintenance and the consequences on the environment cause more negative consequences than if these dams were not there. Despite environmentally and energetically better alternatives such as HPPs, due to the influence of capital on decision-making, the pressure on decision-makers is great.

The third and last but not least, very important measure is that when deciding on the measures, the profession and the interested public face each other and are included in the decision-making process. Because of the conflicts between capital and the public, such cooperation is even more important. However, we cannot ignore the fact that electricity is resold and the interest of energy companies is only to generate profits for themselves. As elsewhere, in this field as well, the operation of energy lobbies is to the detriment of the environment, nature and people. Therefore, with any intervention in the environment, we can ask whether such facilities in the environment are even necessary to provide energy to society or just the aforementioned interests in profits and therefore do not belong in nature.

Although it has been the practice until now that Civil Initiatives have been treated as inhibitors of development, their importance is becoming stronger and with it the protection of the environment, despite the fact that this struggle is often seen as a David and Goliath struggle. On the one hand, capital and non-environmental policies and action from positions of power and exploitation, and on the other, environmentalists on the side of nature and society and with the power of enthusiasm.

Conclusion

In accordance with the Biotic Strategy, Slovenia committed itself to the restoration of free-flowing rivers. The restoration of the original state is almost impossible due to past interventions on the rivers. The Drava River is almost entirely limited by HPP, and a large part of the Sava River has already been built, so some environmentalists and ecologists consider any potential additional restriction of the last wild areas of the Sava River not only harmful, but also extremely extreme due to the mere creation of profits for energy companies. perverted, unsustainable, let alone eco-modernistic. The situation on the existing rivers, if all the structures and dams were demolished today, could change for the better only in decades, but in nature the situation can never be completely restored due to the interventions, because the damage to the flora and fauna has already been done. Therefore, any new installation of HPP or other facilities on rivers is not only questionable, but also harmful, given their negative consequences. There are alternatives where solar power plants could be set up in already degraded areas, which would not further encroach on the space. However, this option is not relevant for designers of energy facilities, because, not least, during the construction of HPP, significant financial resources are at stake, which, like other failed energy projects such as TEŠ 6 in Velenje, is a possibility for corrupt actions.

Therefore, it is the task of us and future generations to draw attention to the problems and find ways and measures that will reduce the burden on the environment. By building hydroelectric power plants, we will only increase the burden. If we want to survive on a limited planet, we will have to change our attitude towards nature and the environment, and certainly reduce our consumption habits, otherwise we will fall into even greater conflicts between people and nature. At the same time, they opened the door for energy companies to continuously degrade nature due to the insatiable needs of society. Due to the anthropogenic depletion of natural capital and the limited regenerative capacity of nature, changes and adaptation of the system (capitalism) to newly created ecological conditions are necessary. According to Harvey (2011), in order to implement a different environment- and society-oriented system, it will be necessary to find an answer to the multifaceted structural problems of the world. To find new forms of organizing society at the local, regional and global level, with which we will more easily face specific socio-ecological problems (Plut, 2014, p. 122). According to Rizman (2011 in Plut, 2014, p. 122), the policy that will lead to changes will have to connect and

combine into a synergy of the system various areas that "integrate both red and green and some other color".

Due to the environmental consequences, which are reflected in weather, environmental and ecological problems and social frictions, and the insufficiency of locally limited measures, global action is necessary in addition to local measures. The developed north must take on the burden of solutions, since it itself produced the burden to the greatest extent.

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