



Capitalism kills: Imperialism, Capitalism and the Destruction of Humanity and Nature

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League for the Fifth International

On the fundamental contradictions between sustainability and the capitalist mode of production

Contents

Introduction

Green Economy - the wrong answers of capitalism

The environmental paradox

Environmental imperialism

The fundamental contradiction between capitalism and the environment

Bibliography

Introduction

Since 1987, when the famous report "Our Common Future" was published by the World Commission on Environment and Development of the United Nations (also known as the Brundtland Commission), the concept of sustainability has been triumphant. The UN Conference in Rio de Janeiro in 1992 (the "Earth Summit"), after decades of important extra-parliamentary debates, recognised the environmental issue as a global problem and declared "sustainable development" a political and economic goal.

Since then, the importance of sustainability and environmental protection/nature conservation in political discourse has gained in importance worldwide and found its way into bourgeois public opinion. Today, there exists hardly any government, company or institution that does not claim to be "sustainable" or at least striving for this goal. Products, consumption, politics, development - today everything gets the stamp of sustainability. Sustainability is omnipresent in public discourse.

This has been accompanied by countless summits, conferences, initiatives, etc., which have dealt with the topic at various levels. For more than 20 years now, since the Kyoto Protocol to reduce greenhouse gas emissions was adopted in 1997, attempts have been made at global, regional and national levels to translate scientific findings into practical policy.

Despite all these efforts and assurances, the problem of environmental degradation, which is reaching global proportions with the development of capitalism and whose humanity-threatening consequences are becoming increasingly dramatic with so-called globalisation, is aggravated.

Environmental problems can generally be divided into two broad categories: the overuse of (renewable or non-renewable) resources on the one hand and the overloading of what are referred to as "sinks" on the other. The first category includes the overexploitation of resources such as soil, (ground) water, mineral resources or wood. The second category includes the increasing pollution of rivers, lakes and oceans and the overuse of the atmosphere as a sink for greenhouse gases.

All these environmental problems are now taking on unprecedented proportions, with dramatic consequences. These include, the loss of biodiversity, the leaching, salination and degradation of soils, the collapse of fish populations, the

accumulation of pollutants in food chains, over-fertilisation, poisoning and depletion of surface and groundwater resources and, of course, global warming. Humanity not only promotes noticeable negative impacts on the global environment, these now also threaten to destroy its own conditions of reproduction.

In summary, we can speak of environmental destruction, defined as the over-exploitation of resources and the overloading of sinks. The number of conflicts and struggles caused by this development is also increasing in connection with the progressive destruction of the environment.

Despite all assurances, advertising and propaganda, there can be no question of 'sustainable (capitalist) development' in the United States, Europe or on a global scale. Actual development stands in stark contrast to the assertions and declared intentions of the ruling elites. There are obviously fundamental reasons preventing a "change of policy" towards "sustainable development" and a solution to humanity's most pressing problems. These lie in the current economic system of mankind; capitalism.

Green Economy - wrong capitalist answers

The Brundtland Report defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". (WCED 1987, P. 41)

This definition leaves the social question, that is, the inequality of resources and power, largely open and focuses on the question of future generations and intergenerational justice. At the same time, it asserts that there is a largely uniform, general interest of "humanity", independent of humans' social position and interests. The definition is therefore rightly subject to much criticism. The fact that it nevertheless prevailed and received such a high status in political debate is not primarily because of an increasing, abstract environmental awareness among the population and/or politicians, but because the foundations of capital accumulation themselves are jeopardised in the long term by increasing environmental destruction, and mass struggles and movements over distribution undermine the stability of the bourgeois system. This concern among sections of the ruling classes was summarised already in 1972 in the famous report "The Limits to Growth" (Meadows et al. 1972) to the elitist Club of Rome. The central concern of the elites is not the integrity of the environment itself, or the effects of increasing environmental degradation on the poor or less privileged layers of the population, but the maintenance and continuation of capitalist economies and capital accumulation.

Thus, the debate on 'sustainable development' has defined not only the problems associated with the environment, but also their solutions: "Green Economy" and "Green Growth" are the key buzzwords here. They describe the idea that the foundations of our society and economy, the capitalist economic order, can continue to exist and that its negative environmental impacts can be reduced and ultimately be overcome while maintaining growth and capitalist accumulation. These concepts now dominate all public discussion on the environment. They have become commonplace, are rarely questioned, and are often taken as the common basis for debate rather than being the subject of contestation themselves.

New "green" technologies play a key role in such concepts. The underlying idea is that capitalism could continue to grow, albeit not indefinitely, when "regulated" and calibrated for the benefit of humankind and the environment, if only it were converted to green technologies. These would only have to be embedded in "reasonable" national and global "frameworks" which would balance the interests of various classes, the poor and rich, and between the "rich" nations and the so-called "Third World" for the benefit of all. Consequently, the debate on the environmental question focuses largely on its technological form. When political and social questions are addressed, they are to a certain extent viewed from a socio-technical point of view, within which they could in principle be solved within the framework of a "Green New Deal". The question of whether ecological sustainability can be established on the basis of capitalist production, that is, the fundamental constitution of the current economy and politics, is systematically ignored.

This approach is most evident in the field of energy production. Energy supply is of central importance for any kind of economy. The development of capitalism is closely linked to the development and use of fossil fuels; coal, oil and gas. The entire modern capitalist society is built on these energy sources, its entire infrastructure designed and shaped

accordingly. Marx shows in *Capital*'s chapter on relative value-added production that the capitalist mode of production demands a permanent, unfluctuating source of energy and propulsive machinery on a grand scale for the factory system and the corresponding general infrastructure. Hence, the enormous historical importance of the steam engine in establishing large scale industry as the technological base for capitalism.

This, and with it an energy supply generated by fossil fuels, has been designed from the outset for the world market and expansion beyond national borders, and thus forms the technological basis of the global capitalist economy. With fossil fuels and the associated machinery, initially driven by steam power, later by electricity, the capitalist logic of permanent acceleration and expansion could be established in every country.

However, increased understanding of the effects of greenhouse gas emissions has fundamentally changed the attitude towards fossil fuels. While they were glorified as the basis of development, growth and wealth for most of the 20th century, today they are increasingly seen as a problem.

Interestingly enough, and hushed up by the mainstream ecological movement, authors such as Marx and Engels in the 19th century did draw attention to the inevitably negative, social and environmentally destructive effects of capitalism and pointed to the contradictory nature of progress. This critical view of the ecological consequences inherent in Marx's theory of capitalism, however, was lost in the workers' movement as a result of the predominance of social democratic and Stalinist reformism.

Back to "green capitalism". In its own logic, the solution to the problems is already in sight and has been for a long time: renewable energy. Wind, sun, biomass and water (in many countries also uranium) are to replace oil, gas and coal. This could reduce greenhouse gas emissions while maintaining the so-called "security of supply" and economic growth, that is, a steady, but ecologically regulated, accumulation of capital.

A large part of the traditional environmental movement, especially in rich imperialist countries, has also adopted this line. Everything can essentially remain as it is today, only it will be driven by renewable energy. However, the environmental and social effects of different forms of renewable energy in capitalism are often underestimated, overlooked or even ignored.

In many countries, the massive cultivation of biomass for fuel production has led to the displacement of the rural population and the concentration of farmland in the hands of a few powerful companies and corporations. The monocultures associated with it cause land, fertiliser and pesticide overuse as well as species loss. Furthermore, the increased production of biofuels has contributed to an increase in world market food prices and to a negative impact on the food security of millions. Even today, native forests are being cleared for the cultivation of biofuel plants in, for example, Colombia, Indonesia and Malaysia. Biofuels from these sources can perversely lead to higher greenhouse gas emissions than fossil fuels.

Contrary to popular perception, wind and solar energy are also not free of negative effects. Both require raw materials to manufacture turbines or solar cells and, depending on the application, can have a high land requirement. Many materials are used in their production, some of which are produced under conditions that are severely damaging to the environment. This applies, for example, to the "rare earths", most of which are extracted in China, and to coltan from the Congo (see e.g. the Maughan report [2015] for the severe environmental impacts of the extraction of rare earths in China). Also, social conflicts caused by renewable energies are becoming increasingly apparent. For example, the construction of large wind farms by foreign investors in Oaxaca, Mexico, has led to fierce conflicts with the local smallholder population, who are massively affected by them (see, for example, Schenk 2012, or - in Spanish - Castillo Jara 2011). Here, too, in the interest of the capitalists' profits, the negative effects on the local, less privileged (rural) population are passed on, the same principle as with fossil fuels, even if the effects are different.

Hydropower, especially large dams, has experienced a renaissance through the promotion of renewable energies. In contrast to the other forms of energy cited, its use has long been established in capitalism. In 2015, it accounted for 16 percent of global electricity generation, representing 70 percent of global renewable energy production (IEA 2017). The

severe socio-economic impacts of dams, which have been much studied and documented and have led to major socio-ecological conflicts (see, for example, Hess et al. 2016 or Hess and Fenrich 2017), contributed to a declining dynamism of the hydropower sector until the turn of the millennium, especially with regards to large projects. Since then, however, their installation has picked up speed again amidst the debate on greenhouse gas emissions. Dams are recognised as an (allegedly) low emission technology in the UN's Clean Development Mechanism (CDM) and can therefore be funded by a number of eco-conscious public programmes. The effects are often gigantic: beginning with the resettlement or displacement of hundreds of thousands of people, including the destruction of fish populations and the ecology of entire river systems, and stretching to the violation of labour rights, open violence and structural corruption. Even the allegedly low greenhouse gas emissions have been publicly contested as reservoirs can emit enormous amounts of carbon dioxide and methane (Mendonça et al. 2012).

The policy of switching to renewable energies, known in Germany as the "energy turnaround", suggests a technological narrowing of the problem. This is one of the ideological foundations of the new green economy. This logic can also be observed in other areas. For example, intensive agriculture and genetic engineering are promoted by the agricultural lobby as answers to climate change and a growing population, as if the mass expulsion of small farmers and the over-exploitation of soils and water resources were not precisely due to these "solutions" to begin with. Electric cars are seen as a new hope for maintaining not only the economic importance of car companies and their profits, but also the fixation of the upper and middle classes, as well as large sections of the working class, on individual transport. It goes without saying that organic farming is also subject to the logic of profit and is already partly practised in an ecologically and socially damaging manner.

In addition to the use of new, more environmentally friendly, technologies, the more efficient use of resources in the production process is the second technological pillar of the Green Economy. Capitalism has, indeed, been able to increase efficiency massively in many processes. However, this does not automatically lead to lower actual consumption of the raw materials. When a production process becomes more efficient in terms of the amount of energy and raw materials input required, the value of the product naturally decreases because less raw material and/or energy goes into it. The company which produces more cheaply thus achieves an advantage over its competitors because it can sell the goods it produces at a lower price or a higher profit margin. However, this situation necessarily lasts only for a limited time, until competitors catch up and introduce the same technology. The end result, therefore, is generally a lowering of prices so that reducing the consumption of raw materials and energy for the individual product may well go hand in hand with increasing overall consumption, especially in phases of massive growth and unchecked accumulation.

This phenomenon was already known in the 19th century and can also be observed, albeit over much shorter periods of time, with regards to the human labour force, especially when the expansion of a certain sector is so great that, despite an increase in labour productivity, more wage earners are drawn into production. However, since industrial production is accompanied by a regular replacement of human labour by machinery, such a "paradoxical" development is more pronounced with regards to raw materials and energy.

The British economist William Stanley Jevons described this effect in the 19th century using the example of coal consumption in Great Britain in his book *The Coal Question* in 1865. The effect is, therefore, referred to as the Jevons paradox (see for example, Foster et al. 2010, p. 169 ff.). Jevons misjudges, even transfigures, the causes of the paradox, which can be easily explained by Marx's analysis of capitalism. Jevons himself was a Malthusian. Malthus denied that "overpopulation" (that is, the mass of the poor who cannot sell their labour power and, finding no livelihood, are regarded as "surplus population") arises as a result of capitalist accumulation and declared cycles of population growth and decline an unchangeable law of nature. In the same way, Jevons does not explain the paradox from the inner contradictions of the capitalist mode of production but claims that it is the natural law of all large-scale industrial production.

Today this "paradox" is often summarised as the "rebound effect". In the car industry, for example, it leads to car models becoming larger and heavier instead of more economical. The aim here is not to produce cars that are as economical and inexpensive as possible for buyers with limited purchasing power, but to create new, attractive offers

matching the purchasing power of the affluent middle classes and labour aristocracy (see, for example, Brand and Wissen 2017, p. 125 ff.).

In the debate on rebound effects, the prevailing 'green economy' solutions are criticised, but the critique is erroneously aimed at the consequences rather than the root of the problem. Because bourgeois ideologues see everything as technologically solvable, technology or a certain form of production is blamed, but not the mode of production. The connection between production and individual consumption is turned upside down. If car companies in imperialist countries push higher-priced products, this is not due to a preference for higher-income buyers, but simply to the fact that the incomes of the middle and lower layers of the working class stagnate, if not fall. Higher profit margins can therefore only be achieved in the premium segments.

In the institutional and economic spheres, too, the importance of the environmental question has led to new developments. As already mentioned, these are generally subordinate to technological innovations. A central example of this is the famous emissions trading scheme that was born out of the Kyoto Protocol. The background is the promotion of the competitiveness of renewable energies as opposed to fossil fuels. The principle follows the logic that one of the central problems of capitalism in relation to the environment is that many environmental factors are insufficiently reflected, if at all, in the prices of goods and services, effects on the environment are externalised by capitalist companies, which only know profit as the driving force.

The "externalisation" of social costs has shaped the capitalist mode of production from the very beginning. Marx himself discusses a number of these phenomena in *Capital*, pointing to a very general one: "By incorporating with itself the two primary creators of wealth, labour power and land, capital acquires a power of expansion that permits it to augment the elements of its accumulation beyond the limits apparently fixed by its own magnitude, or by the value and the mass of the means of production which have already been produced, and in which it has its being." (Vol 1, p.752, Pelican)

For example, extractive industry hardly requires any expenditure for the raw material, this natural product is simply extracted. The value of the product consists almost exclusively of labour, the use of working materials and transport. The same applies to the cooperation of workers, whose combined productive power and planned use are simply used by capital during the labour process, since it absorbs the labour itself, it functions as part of capital. How labour produces itself on the other hand, how food is produced, children are cared for, whether there is a school or not, presents itself to the individual capitalist as a "natural condition" outside their responsibility, outside of their interests. They simply use these conditions in order to exploit the labour force as effectively and limitlessly as possible.

The same also applies to social developments, infrastructure, means of communication found or newly created without the capitalist's intervention. The individual capital appropriates these with every turnover of capital or, as Marx puts it, reinvested capital, "in passing into its new shape, incorporates, free of charge, the social advances made while its old shape was being used up." (*Capital* Vol 1, p.754 Pelican).

These "externalised" costs thus comprise of three elements: (1) the earth (raw materials, water, air, "nature"...), (2) the labour force, whose private reproduction is left to the "family" (above all to women in the household) and (3) general social development of productive power of labour (science, education, infrastructure, public transport, ...).

In environmental terms, externalisation means that companies do not include environmental costs, such as water and air pollution, extraction of water and other resources as inputs, greenhouse gas emissions and so on, in their balance sheets and therefore pass these costs on to the general public or society. These effects, however, are by no means evenly distributed among society or societies (of different countries). 'Externalisation' takes two basic forms; environmental consequences whose impacts cannot be unambiguously assigned locally and spatially, such as greenhouse gas emissions that lead to a global climate change, and the conscious outsourcing of environmentally harmful production to other, mostly poorer, countries.

In the case of greenhouse gas emissions, the earth's atmosphere is used as a sink for greenhouse gases, for a long time

completely carefree and free of charge. Capitalist companies only change this behaviour if they are forced to by social struggles and movements, by the state or supra-governmental institutions, or if there are attractive financial incentives. In the case of greenhouse gases, state regulation is difficult and at times even impossible for several reasons. After all, the burning of fossil fuels is closely connected to the dominant economy and cannot simply be restricted by law without having a massive impact on the core mission of capitalist economy, capital accumulation. The capitalist solution is emissions trading. Greenhouse gases are given a price, in form of certificates, and thus flow into companies' balance sheets. Companies that emit a lot of greenhouse gases have to buy certificates from others that emit little. In addition, low greenhouse gas technologies and innovations are to be promoted.

While the approach of internalising environmental costs into the balance sheets of the production of goods and services can be positive and correct, it is often the opposite under capitalist production. In practice, emissions trading has not led to a reduction in greenhouse gas emissions, but to a new lucrative source of profits for large corporations. The European Union has so far been the leading institution in the attempt to introduce comprehensive emissions trading. For years, however, the certificates were sold far too cheaply, which meant that they were available in abundance for the companies and groups that emit the most greenhouse gases. This allowed them to buy cheap certificates without changing anything before selling them on for a profit. After all, certificate trading can in principle also take on speculative features as soon as emission rights themselves become commodities that can be traded on their own exchanges. Meanwhile, greenhouse gas emissions continue to increase and emissions trading as an instrument to reduce them is in crisis.

As explained above, the "green economy" is based on the idea that the challenges in the area of environment and climate can essentially be mastered by introducing new technologies and regulatory economic interventions while at the same time maintaining and even intensifying the capitalist economic order. Emissions trading thus creates a huge new market. Within the framework of its attached instruments, such as the "Clean Development Mechanism" (CDM), it immediately opens up new markets, resources and areas in the global South for exploitation (energy projects) and/or justification of environmentally damaging activities elsewhere (so-called compensation areas). The principle of "getting the price right" is propagated by many international development institutions as justification for the (partial) privatisation of environmental goods or services. The REDD (Reducing Emissions from Deforestation and Forest Degradation) programme of the United Nations is based on the same logic. While its laudable goal is to reduce deforestation and related greenhouse gas emissions, its practice often leads to traditional communities losing control of their territory while opening new territories for global corporations (Fatheuer et al. 2015, p. 81). According to the prevailing neoliberal logic, the problem in agriculture is not the mass expulsion of small farmers, the increasing concentration of soils in the hands of multinational corporations and/or local elites or the increasing orientation towards capital-, water- and pesticide-intensive cash crops (which means cultivation of crops for export), but, in line with the concerns of multinational agro-corporations, the lack of clarity in private ownership of land (Fritz 2010, p.115 f.).

New, less polluting, technologies can certainly play a key role in overcoming the current exploitative and predatory economic system. The shift to renewable, low-emission energy sources and more resource-efficient forms of production is important and necessary given the scientific reality of climate change and its possible consequences. However, the experiences of the last two decades clearly show that a purely technological conversion within the framework of capitalist production does not bring about the desired results, and even produces serious new problems.

Technologies and their effects are always dependent on their use, the socio-economic context in which they are introduced and which, or whose, social interests they express. In capitalism, technological development always goes hand in hand with the replacement of human labour by machinery. In a future post-capitalist society, this would mean a central source of social progress and the expansion of leisure time for all. In capitalism, it inevitably means the consolidation of the rule of capital over labour, the intensification of workers' exploitation, and pushing newly "superfluous" wage earners into unemployment.

As renewable energies and other new technologies or approaches (such as organic farming) are introduced and used in the interest of capital, they are subject to the logic of profit maximisation at (almost) any price. Within this logic, they

go hand in hand with expulsion, land theft, injustice and environmental destruction, instead of overcoming such "collateral damage" of the capitalist economy. Renewable energies are now an established, thriving industry and of great interest to important factions of capital. This is demonstrated not least by the protest by parts of US capital (including major energy companies such as Exxon) against President Trump's decision to leave the Paris Climate Change Treaty. On the other hand, this step also makes it clear that in global competition and in the struggle to divide the world between the imperialist powers, even half-hearted agreements with limited scope and no effective enforcement will not be accepted if they touch upon who should bear the costs of destroying the environment.

The environmental paradox

Although global environmental problems continue to sharpen, direct environmental pollution and destruction in the rich imperialist countries (essentially Western Europe, the US, Canada, Australia and Japan) has declined in some respects since the 1970s. The exact measures of this alleviation may be questioned in light of the 'diesel scandal' and increasing nitrate pollution of groundwater, but in general this refers to water pollution from domestic and industrial effluents, air pollution from sulphur dioxide and nitrogen oxides, the severe effects on soil and (ground) water from open landfills, and direct industrial pollution from the release of toxic substances. Most imperialist countries today have extensive environmental regulations and laws, and many also have or have had significant environmental movements as well as political parties born out of these movements. Furthermore, for decades, if not centuries, the workers' movement and the trade unions in particular fought a bitter struggle for reasonably decent living conditions, that is, those that enable a permanent reproduction of the labour force. In early capitalism, workers' lives were often characterised by absolute impoverishment. Newly emerging industry exposed them to unbearable conditions in factories and residential areas; little or no sewerage, no protection against harmful gases and chemicals, no provision for sickness and old age, child labour, conditions which still exist today in the neo-colonial countries of the so-called Third World.

On a superficial level, it seems that the rich countries are on the right track so that environmental pollution and destruction today are above all a problem of the poor nations in the global South. A closer look, however, reveals a paradox: in countries where the consumption of resources (total and especially per capita) is particularly high (imperialist countries), environmental degradation appears to be lower than in countries where the consumption of resources is much lower. In bourgeois sociology, this circumstance is referred to as "environmental degradation paradox" (Jorgensen and Rice 2005), "ecological paradox" (cf. Lessenich 2016, p. 96 ff.) or simply as the 'environmental paradox'.

In order to explain this, sociologist Stephan Lessenich extends the principle of externalisation to the relationship between countries. With the development of the capitalist world market, rich countries were able to systematically relocate energy-intensive, particularly environmentally damaging and socially harmful production to other countries. Lessenich (2016, p. 96 ff.) summarises "'the rich industrial societies are in a position to systematically outsource the preconditions and consequences of their 'excessive consumption' to other regions of the world, namely to the societies of the poorer countries that export raw materials. In this way, they consistently clean up their own environmental and social balance sheets - and leave the dirty business to others. Except, of course, for the economic profits to be drawn from it."

This shift has taken place in three areas in particular: (1) the outsourcing of nature-destroying extraction of raw materials (energy sources such as oil, coal and uranium and raw materials such as iron, aluminium, cobalt, copper and many other metals, etc.); (2) the outsourcing of environmentally damaging industrial production (e.g. steel, textiles, cement and paper or the electronics industry); (3) the outsourcing of land-consuming agriculture (e.g. soy, grain, meat, renewable raw materials such as sugar cane or oleaginous plants) and intensive aquaculture (fish and shrimp). In recent decades, under neoliberalism, this development has been further intensified and accelerated. A large part of the environmental destruction of the rich capitalist economies is thereby shifted to poorer countries. This means that the environmental impacts of a country cannot be assessed solely on the basis of internal characteristics such as domestic electricity or resource consumption but that the material and energy flows of resources and waste products from and to other countries must also be included.

At this point, it could be argued that the main motivation for many of the above-mentioned relocations was not lax environmental regulations, but lower labour costs. These factors do not contradict but complement each other. The motivation of the capitalists for outsourcing is the reduction of production costs and the increase of profits as well as the profit rate, both lower wages and more lax environmental regulations contribute to this. The relationship between these factors may vary between industries and between firms, but the systematic externalisation of socio-ecological negative impacts to poorer, semi-colonial countries is the result.

Secondly, it could be argued that some natural raw materials such as agricultural products can only be mined or cultivated in certain regions of the world and are therefore produced in the respective countries. Often, however, the cheap availability of these resources (due to lower wages and environmental regulations in the countries of origin) has systematically contributed to replacing domestic production or making specific technical developments and innovations attractive to capital. The former applies, for example, to the import of sugar as food or of soy as animal feed. The latter applies, for example, to the cheap, constant availability of oil as a prerequisite for the oil-based individual transport system.

The economies of Europe and, above all, of the European Union, are exemplary in this respect. Compared to the United States, Canada or Australia, European countries have far less land. The importance of agriculture in Western European economies has declined steadily since World War 2.

In Germany, only about 2 percent of the workforce is employed in agriculture (about 940,000 out of 44.7 million employees, see Federal Statistical Office 2017). Nevertheless, food security has increased significantly. One reason for this is undoubtedly the increased productivity of agriculture, but another is the successful externalisation of land consumption for agricultural production.

Today, Germany covers only about 50 percent of its necessary use of agricultural land through domestic production, the corresponding number for forest land is 25 percent and for grassland 35 percent (Federal Environment Agency 2017a). For the EU, the shares are 77, 74 and 60 percent (Fischer et al. 2017). This ratio can also be seen in the trade balance of energy sources and metallic raw materials.

Although the EU, particularly the so-called core economies Germany, France and (for now) Great Britain, is still the leader in global industrial production, it has very few raw material resources of its own. Iron, aluminium, cement, copper, cobalt, rare earths, coal, uranium and gas and many other resources needed for production are mined in other parts of the world and imported.

With the exception of Great Britain and Norway, there are also no significant oil producing countries in Western and Central Europe.

In addition, there are mass imports of textiles and consumer goods (especially electronic goods) consumed in the EU.

On the other hand, there is the mass export of waste products such as electronic scrap to African countries or plastic and other waste to China. In 2016, the EU exported 1.6 million tonnes of plastic waste to China, of which Germany alone exported 560,000 tonnes (Tagesschau 2018). With China's rise to an imperialist power, however, the balance is shifting. At the end of 2018, the country banned the import of heavily polluting and poorly sorted waste; filth is to be shipped to other Asian countries in the future. At the same time, China is beginning to export its own waste.

However, the externalisation of negative environmental impacts has limits. Even in the rich countries, of course, it has not been and cannot be fully successful. Even in these countries there are still many serious old and new environmental problems that are aggravating or newly emerging, such as groundwater pollution with nitrates, loss of species and biodiversity, soil degradation, air pollution from car, power station and industrial exhaust fumes, and the use of chemicals which are environmentally harmful or whose effects are as yet unknown. In the EU, tens of thousands of chemicals are used in industry and end up in the environment, and new ones are constantly being added. Only a minimal number (a few hundred) are regulated and for a large number there exists no reliable insight into their (long-term) environmental effects. Furthermore, the externalisation of the negative impacts of greenhouse gas emissions

reaches natural limits, and the consequences of climate change will affect the rich countries, albeit presumably to a lesser extent.

There are also countervailing trends and interests. The high level of subsidies for agricultural production in the EU for example is a factor in preventing or slowing down further outsourcing and thus, (1) not becoming even more dependent on imports and, (2) being able to sell even highly industrialised agricultural products internationally at a profit and keep the importing countries dependent. Another example is the fracking boom in the USA. The harmful technology leads to a reduction in dependency on oil imports at the price of socio-ecological consequences within their own borders whose impacts, however, are either not yet known or have not yet occurred on such a scale as to prompt major conflicts. As President, Donald Trump has promised an aggressive agenda for the re-internalisation of externalised environmental impacts, such as the reintroduction and strengthening of coal and oil production. He promises jobs to the US working class while downplaying the socio-ecological effects this will have.

Of course, this is not about the interests of wage earners. Even the short-term profits that the US oil industry can and will draw from it only explain this course to a limited extent. Rather, the crisis of globalisation and the intensified competition between old and new major powers forms the background against which these turns of events must be understood. The competition between the main imperialist powers, USA and China, but also Japan, Russia and leading nations of the EU (especially Germany and France) is becoming increasingly fierce, which also means that exclusive access to markets and whole continents is being fought for. Thus, the United States has retreated from multilateral agreements such as the Paris Climate Agreement under Trump, because he assumes, not at all unrealistically, that he can dictate conditions to individual states much more easily and comprehensively in political, economic and ecological terms than via multilateral negotiations and agreements. China has launched its own project in this competition, the "New Silk Road". For Germany, the EU also functions as an imperial territory in which the countries of southern and eastern Europe are incorporated as semi-colonial territories.

All this illustrates that the intensification of ecological problems is inextricably linked with the imperialist stage of capitalism and that ecological issues cannot be solved without overthrowing the imperialist world system and replacing it with a socialist planned economy.

Imperialism and the environment

The externalisation of negative socio-ecological impacts occurs naturally in all countries where capitalist production predominates. The expansion of the world market, the abolition of regulations and the enforcement of neoliberalism only intensify this process. Within the framework of the imperialist world order, it necessarily goes alongside relocating and outsourcing of costs from the rich imperialist countries to semi-colonial ones. Here, as in capital analysis in general, a distinction must always be made between the material and the value side of these transfers.

The position of the "poor", that is, the semi-colonial, countries within the international division of labour reflects this. The rich countries import energy-, space- and environment-intensive raw materials and consumer goods, they export capital- and value-intensive industrial products and services.

The poor countries, on the other hand, focus on production for the export of corresponding raw materials or goods, which constantly exacerbates their socio-ecological problems. The basis for this is the ever-increasing concentration of capital in the imperialist core countries (USA, Canada, Western and Central Europe, Japan, China and Russia). On the one hand, the large capitals control the technologies that are decisive in each case, which gives them cost and price advantages through superior productivity. This enables them to acquire more and more value produced by smaller, less productive capitals, most of which are located in the non-imperialist countries. On the other hand, the large capitals also determine the unfavourable economic structure for the dependent countries through massive capital exports. This capital export can take the form of direct investment and the establishment of supply chains, as well as growing public and private debt.

Bourgeois economic theory refers to "sinks in the value chain": The "most valuable" activities in the manufacturing of products, such as invention, design, marketing and sales, are compared with the "inferior" activities of raw material extraction and the necessary manual work in production. Here, the true sources of value, the expenditure of necessary

human labour and natural resources, are obscured. However, it is also clear that these "sinks in value creation" are increasingly shifting to dependent countries. The more exploitative, resource-consuming and environmentally harmful the industries and associated sectors become, the more they are outsourced to the semi-colonial world. Energy-, space- and environment-intensive as well as labour-intensive, monotonous and dangerous production is "disappearing" more and more into these countries, while in the imperialist centres the "clean" services, the control activities and the decreasing number of finished products remain.

This process must not be confused with the "de-industrialisation" of the imperialist countries, but rather means that we are dealing with an international division of labour that leads to a merely selective and dependent industrialisation of the rest of the world under the control of the great powers. Therefore, the investments and capitalist projects in the "poor" countries are necessarily accompanied by an extreme intensification of inequality, as can be seen especially in the "emerging countries" such as India, Brazil or South Africa. This uneven and combined development, in which important modern production sites are accompanied by extreme backwardness and poverty, is a characteristic of the entire imperialist epoch, as is evident today in all the "megacities" of the South. All this extreme asynchronicity of development exacerbates the ecological question in the relationship between city and countryside, as well as in the context of urbanisation.

The economic development of semi-colonial countries remains structurally dependent due to the dominance of finance capital, which is institutionally, politically and militarily secured by the major powers. The profits are appropriated by the internationally operating corporations and enterprises whose headquarters are located in the imperialist countries, which is why the profits flow continuously into these countries, thus starting the cycle all over again. While at the beginning of the imperialist era the capital-poor countries were mainly suppliers of cheap raw materials in exchange for industrial products from the imperialist centres, this has now been supplemented by a new form of division of labour. In the course of increasingly global production, the end points of so-called global value chains are now also located in semi-colonial countries, such as the electronics and textile industries. Half of global trade today consists of intermediate products. In addition to raw materials and consumer goods, the semi-colonial countries are also interesting for the core as locations for cheap supplier industries. Not only are exploitation and environmental destruction externalised to the semi-colonial world, the sometimes absurd distribution of production chains throughout the world and the associated huge transport fleets in the air, on water, on the road, etc. are themselves a massive producer of ecological waste in the interest of short-term cost advantages for large corporations.

The trade relations between poor, semi-colonial countries and imperialist countries are based on a value transfer, that is, the imperialist centres appropriate a large part of the wealth created, where most of the capital stock remains concentrated. This value transfer is reflected in a division of labour that confirms the specialisation of the economies dominated by the centres on specific products. The transfer of value in favour of global financial capital essentially determines the direction of development of these countries and reproduces and reinforces their dependence.

These structures express themselves in an economically and ecologically "unequal" exchange. Different theories of economic unequal exchange refer to a quantitative problem of exchange of value and assume a systemic transfer of value from semi-colonial to imperialist countries. This, according to some of these theories, can be traced back to the exchange of more labour for less.

The concept of ecologically unequal exchange, by analogy, argues that there is exchange of more ecological use value (or natural products) for less, as a basis and thus refers to the qualitative aspects of use value (cf. Foster and Hollemann 2014, pp. 205 and 207). Foster and Hollemann (2014, p. 227) define ecologically unequal exchange as "the disproportionate and undercompensated transfer of materials and energy from the periphery to the centres, and the exploitation of environmental space within the periphery for intensive production and waste disposal."

While historical Marxist theorists like Otto Bauer assumed that the differences in the organic composition of capital between capitalistically advanced and backward countries are the cause of economically unequal exchange, later authors like Emmanuel have argued that the high wage differences between the countries are the root cause (cf. Howard and King 1992, p. 190). Reformist concepts were derived from these theories, most of which assume that a fair and free

world trade could be achieved through regulatory interventions and "import substitution" strategies of development in the semi-colonial countries. They have the flaw in that they mistake a symptom (the unequal conditions on the world market) for the (curable) cause. The unjust world market conditions, however, are only the result: it is not the organisation of the circulation of goods that is decisive, but the form of capital accumulation, which has its centre of movement in the imperialist centres. Only the internationally coordinated struggle against the power of corporations and against the political powers associated with them can break this structurally conditioned vicious cycle in the poor countries. Only the internationally organised working class is capable of this coordinated struggle, which must also join with those who oppose the ecological and agrarian destruction of this system.

The international division of labour in favour of rich countries has created extreme socio-ecological inequality between rich and poor countries. This undeniable fact is rooted in capitalism itself and is a result of the movement of capital, which is determined by the imperialist centres. The problem with the theories of ecological unequal exchange, of course, is that they see the material side of transfer as the cause, if not the core, of the problem, thus watering down and confusing the conceptual distinction between use value and value/exchange value, representing a step backwards from the achievements of Marx's theory. This also applies to the work of Foster and Hollman (2014), as their definition of ecologically unequal exchange (cited above) and their positive reference to Howard Odum's concept of "emergy" make clear. This latter concept is intended to present a common measure of real wealth and use value, based on the amount of energy used in production, such that unequal transfer of use value is represented by unequal energy balances. This, of course, introduces an arbitrary and contested factor for comparing use values, which ultimately leads Odum and his students to resort to money as a measure of use value (and to a dispute as to how far and whether this is permissible). The whole confusion is not accidental but stems from the attempt to find an alternative common substance of values outside the socially necessary labour objectified in the commodities.

It is typical for these theories to focus on the distribution of income and resources, not on the movement of capital accumulation. Consequently, Lessenich points out that inequality on a global scale is even greater than inequality between the richest and poorest within individual countries. Such references are justified when it comes to pointing out injustice and inequality. The reference to "poor" and "rich", however, refers only to the ratio of income earners. The class relations on which it is based are ignored or tend to be regarded as secondary, so that the exploitation of labour in both imperialist and semi-colonial countries is no longer at the centre of the analysis.

Lessenich (2016) uses the term "externalisation society" for these relations, Brandt and Wissen (2017) speak of an "imperial way of life". Both terms miss the crucial element in the capitalist economic and social order. They leave out the power relations and the possibilities of shaping and changing the ruling order or assign them a subordinate status. But the ruling social order is essentially one that supports the interests of the ruling class, in capitalism it is the order of capital. Whether the ruling class is more or less successful in including subordinate, subaltern and exploited classes and strata, thereby stabilising their order, or not, does not change this fundamental relationship.

As Thomas Sablowski (2018) shows, the thesis of the "imperial way of life" ultimately ignores the class question. According to Brand/Wissen, most people in the imperialist countries live "at the expense of nature and the workers of other regions of the world". All members of society, from the super-rich owner of capital to the precariously employed or the long-term unemployed, are seen as integrated into a common "way of life" or "uniform consumer norms"; the difference ultimately being merely quantitative. Not only is it problematic to attribute a common "imperial way of life" to the poor and rich, the whole theory leads to a number of false political consequences. First, the scope of analysis is shifted towards individual consumption and away from production. Secondly, the theory assumes a common interest of exploiters and exploited, in which the class contradiction takes a back seat, not only in the centres, but also in the "peripheral countries". The politically fatal, but logical, implication of this theory is not for the class of wage earners to organise joint international struggle, but either individual "abandonment" of the "imperial way of life" (for example by buying locally sourced, organic products) or cross-class and ultimately nationalist alliances in the dependent countries.

While such explanations have the merit of looking at important manifestations of ecological devastation, they fall short theoretically and lead into a dead end politically, even to reactionary conclusions in extreme cases.

The totality of the global capitalist regime can more aptly be described as 'imperialism', or environmental imperialism in ecological terms. The concept of imperialism was and is often understood in bourgeois theory today as a geopolitical concept, as a description of the colonialism of the European powers of the 19th and early 20th centuries (even if the creator of the concept, the British left-liberal economist J A Hobson, located the root of imperialism in the economic expansionist striving of capital).

Lenin, in his famous work on imperialism, developed the concept further as a Marxist category. Imperialism describes that stage in the development of capitalism in which financial and industrial capital unite to form 'finance capital', the former gaining the upper hand over the latter, opening the whole world to capitalist exploitation so that the capital export of the rich imperialist countries determines relations on world markets (Lenin 1975 [Original: written 1916, first published 1917]).

Imperialism goes hand in hand with a division of the world between a few major powers and is based on a massive concentration of capital in the imperialist centres whose power it secures. The political order of imperialism creates institutions that safeguard the global business of the big capital groups.

While this was colonialism at the beginning of the imperialist epoch, today, imperialism can mostly do without direct colonial administration. The worldwide debt, currency and investment structures generated through institutions such as the International Monetary Fund, the World Bank and international trade organisations, together with bilateral credit and trade agreements, can usually exert enough pressure to secure indirect rule. Should deviations arise, there are still enough funds available for military, para-military or political interventions that lead to subjugation.

Often, however, the threat of capital withdrawal or trade sanctions, combined with currency and stock market turbulence, is enough to bring disobedient governments back into line. The form of domination has liberalised, but exploitation has become all the more intense and has integrated the whole world into an increasingly networked global division of labour in the interests of the capital concentrated in the imperialist centres. The colonial status for the poor countries was therefore replaced by a semi-colonial status.

In his theory of imperialism, Lenin also points out that imperialist exploitation comes with certain forms of material transfer from colonies/semi-colonies to the imperialist centres; above all, he emphasises the central importance of capital exports as distinct from the colonial era.

In order to understand the global environmental impact of capitalism in the imperialist epoch, the material and energy flows between the imperialist and semi-colonial nations must be understood within this analysis of the imperialist system as a whole.

This analysis necessarily also has consequences for the class structure in the imperialist centres, not only in terms of the enrichment of the ruling class, the upper layers of petty bourgeoisie and the middle classes, but also for the working class. A significant number of wage earners can be integrated through a share in the exploitation of the "Third World", they can win an income persistently higher than their costs of reproduction which allows a lifestyle similar to that of the petty bourgeoisie, albeit often associated with enormously high exploitation (as can be seen, for example, in the enormous labour productivity and intensity of workers in the export industry).

Capitalism can only afford this under three conditions: (1) the constant expansion of capital accumulation, (2) the extraction of super-profits from poor countries, and (3) the systematic externalisation of its socio-economic effects. The social stabilisation "at home" through the externalisation of negative social and ecological consequences of capitalism forms a central, domination-stabilising element of this system. In the semi-colonial countries, raw materials are plundered, land and water resources destroyed, populations are uprooted and forcibly resettled, small farmers are driven from their fields, forests are cleared and plundered. This characterises the system of environmental imperialism and explains the "environmental paradox".

Imperialism has always had devastating socio-ecological effects on the imperialised world. However, the nature of

imperialist exploitation has changed: Initially, colonial societies, joint-stock companies for certain exploitation projects, large bonds to certain states, etc. were oriented towards the extensive exploitation of certain riches. After World War 2, this was complemented by direct investments and sub-firms of large capitals in the semi-colonial world. Meanwhile, extensive exploitation has further developed through a system of intensive exploitation in a global division of labour revolving around the largest capitals. Flexible financial flows allow the rapid relocation of production and trade flows according to the conditions of exploitation. Direct subsidiaries were replaced by chains of indirectly dependent suppliers. Increasingly concentrated capital groups control networks of innumerable subordinate companies that are connected worldwide.

For example, the global agricultural market for soybean oil, flour, beans, palm and rapeseed oil, maize, wheat, coarse cereals and sugar is now controlled by five large consortiums based in the USA, Netherlands and China. They alone account for 70 percent of the world market (Herre 2017, p. 26). They not only dominate the market conditions for suppliers and customers but can also hedge against market fluctuations using commodity futures exchanges and derivatives, an option not available to the populations affected by price fluctuations.

Raw products are only the basic pillar of the corporations, while further processing not only for food has become an even more significant source of profit. For example, palm oil is also used for cleaning agents, cosmetics and for energy production. Similar concentration processes can also be found in the meat industry, agricultural technology and food companies.

Furthermore, agricultural production is increasingly determined by pharmaceutical companies (seed industry) and chemical companies (pesticides, genetic engineering). With the Bayer and Monsanto merger, the world market for seeds and pesticides will be divided between only 4 corporations. Overall, this concentration and global orientation of the agricultural and food industries leads to a catastrophic socio-ecological imbalance.

The global concentration of agro-production has led to the destruction of agricultural self-sufficiency in entire regions, including Latin America and Africa, which have become dependent on imports of cheap agricultural products from the global industry. Turbulences and shocks on the world agricultural markets, such as after 2009, when all major agricultural prices doubled in a short time, immediately lead to massive supply problems and even famines.

The list of concentration processes can also be continued in relation to extractive industries such as mining and energy production. With large plantations for the cultivation of plants for energy generation or as raw materials for the processing industry, agro-industry and classical industry increasingly overlap. Whether through the agro-industry, energy and mining or the meat industry, the areas used and controlled by a few large corporations for capital valorisation grow at a breath-taking pace.

All protests of the affected peoples in the semi-colonies against the projects of the big agro-, seed-, mining-, energy and other companies immediately lead to interventions by international donors and institutions, which usually find local governments to be willing allies and enforcement bodies. Protests against dam projects, land expulsions, price controls, purchase quotas for seeds or fertilisers or food, against massive deforestation, for example, in the interest of the meat industry, all reveal the environmental consequences of imperialism's real, brutal and repressive character. In the imperialist centres, the policies of overexploitation are combined with cynical campaigns about allegedly "sustainable" production doing justice to local producers. Eco-labels and alibi sustainability projects of big corporations are hardly ever more than "green-washing" imperialist exploitation and destruction. Only smashing the power of the large international corporations can enable the small farmers and the landless in the semi-colonial world to achieve a balance between the necessary self-sufficiency of the indigenous population and the now-unachievable standards for ecologically sustainable agriculture, for example, through regionally self-produced and collectively managed seeds.

In connection with his theory of imperialism, Lenin also pointed to the formation of a privileged layer within the working class in the imperialist countries, the "labour aristocracy". This layer is included in the worldwide system of imperialism and benefits from good, improving working conditions and rising wages even more than the average workers in the core. They are the basis for widespread reformism and a labour bureaucracy in the imperialist countries

and some more developed semi-colonies. The workers' movement cannot internationalise and fully realise its revolutionary potential as long as it is dominated by these reformist currents.

The crisis-torn and conflicting development of capitalism today undermines the position of the labour aristocracy in the imperialist centres. This can be the breeding ground for conflict and class struggle on the one hand, or reactionary populist and nationalist trends on the other. As for the working class in general, to win these layers to the struggle for their immediate interests and for solving the ecological questions, the objectively intensifying class contradiction must also be politically sharpened.

At this point we must return to our criticism of the concept of the 'imperial way of life'. The corresponding theorists claim that even the lower classes in the rich countries successfully benefit from the shift of enormous exploitation and environmental problems, for example, through cheap consumer good prices. This is supposed to allow the poorer people in the rich countries to raise their standard of living, or more precisely, their standard of consumption. "Without the cheap food produced elsewhere at the expense of man and nature, it might have been much more difficult to guarantee the reproduction of the lower social strata of the global North, even in the face of the deep economic crisis since 2007. (Brand and Wissen, 2017, p. 13)

Lowering the cost of living through cheaper consumer goods of course has a stabilising aspect. Above all, however, throughout the entire period of globalisation this has allowed a reduction in the value of the labour power as a commodity in the imperialist countries. This facilitated the expansion of the low-pay sector, contributed to the creation of an army of millions of working poor and increased the rate of exploitation in the imperialist countries!

Here, the reactionary and anti-working class aspects of the "theory" of the 'imperial way of life' are revealed by recasting the increase in the rate of exploitation of wage labour as a "transfer", not to the advantage of capital but of the working class. If one thinks through this assumption logically, every wage struggle, every struggle against social welfare cuts, would ultimately be a struggle for a higher share in the exploitation of the semi-colonial world and merely a quarrel among all those who want to indulge in an "imperial way of life".

The term "imperial way of life" coined by Brand and Wissen (2017) suggests that workers in the imperialist countries have themselves become part of the ruling class. This is not the case. They merely represent a relatively privileged part of the oppressed and exploited classes in the international context of global capitalism.

To fight capitalism, it is essential to understand these connections and the mechanisms of imperialism as well as their effects on the working classes both in the imperialist, in the so-called emerging countries and in the semi-colonies. The working class of the North must take up the struggle against the socio-ecological predatory exploitation in the South as its own, which is ultimately about the survival of humanity. When thousands of people flee from the South to the North because of this overexploitation the slogan of 'fight the causes' is brought up quickly.

In fact, the real cause is imperialism and those phenomena bring the consequences of imperialism out in the open. This insight must necessarily lead to the conclusion that imperialism and capitalism must be fought as a whole. Starting with the people concerned and the global interests of the working class, every programme for the struggle against imperialism must therefore develop central demands against worldwide ecological overexploitation at the expense, above all, of the semi-colonies.

The fundamental contradiction between capitalism and the environment

A sustainable economy is impossible in capitalism. Every single capitalist as well as the entire system is forced to permanently speed up the accumulation of capital. Foster et al (2010, p. 201) describe this imperative as the "treadmill of accumulation". In the prevailing discourse, accumulation is generally referred to as growth or economic growth. Behind this lies a fundamental imbalance between use value and exchange value.

In capitalism, goods and services are not produced primarily to satisfy needs, but to acquire value. The value represented in a commodity (exchange value) results from the socially necessary labour time expended in its

production. This means that this value depends on the socially prevailing labour productivity. Nature only enters into the initial determination of exchange value as a "cost factor" to the extent that human labour is necessary to make it useable, for example, the labour necessary to extract a raw material. In capitalism, nature, which is independent of human labour, is excluded as a source of exchange value (cf. Foster and Hollemann 2014, p. 216).

The reproduction of labour or nature is subordinated to the question of the most profitable commodity production. Production does not serve reproduction, but vice versa: the reproduction of workers and nature is only recognised insofar as it serves the production of more value for capital.

Moreover, in capitalism as the mode of production of generalised commodity production (cf. Marx, *Capital*, Vol. 1, [Original: 1867]), the main purpose of production is no longer only the production of value itself, but above all surplus value. The additional work beyond that necessary for the reproduction of the labour force is objectified in this surplus value, which becomes the source of profit for the invested capital.

Thus, for capital, the production process becomes the valorisation process, that is the "self-expansion" of the original capital invested. This determines the nature of the development of productive forces in capitalism. Progress in productivity from the point of view of capital means having to use less labour for the same quantity of production than the competition. This allows them to either (1) appropriate a larger share of socially produced surplus value at constant prices (a transfer of value towards more productive capital), or (2) force the competition out through lower prices (increasing concentration of capital). Per unit, however, less surplus value is achieved through the reduction of labour input as compared to the increased use of machines and raw materials, which leads to a tendency towards a fall in the profit rate. As a result, capital is forced to constantly expand production in order to compensate for the relative fall in the profit rate with absolute growth in the profit mass.

Therefore, capital, by its very nature as a valorisation "machine", is forced to permanent economic growth. However, over the course of the cycle, the tendency of the rate of profit to fall ultimately leads to a fall in the mass of profit and a consequent crisis of the whole system. That the fall in the rate of profit is a tendency, rather than an unmediated consequence of greater capital investment, is a result of what Marx referred to as "countervailing tendencies" both in the functioning of capital itself and through strategies adopted by capitalists to maintain profits.

In addition to the tendency towards capital concentration and the development of cheap sources of finance (e.g. share capital), these include methods of intensifying the labour process and saving on the material basis of production ("constant capital", e.g. sources of energy and raw materials). Capital is therefore driven to ruthlessly exploit environmental resources that can be appropriated as cheaply as possible in order to avoid crises of valorisation, and thus passes on its problems of reproduction as long-term costs of environmental destruction to "the general public".

The capitalist economy, the so-called market economy, is inefficient on the global level as far as the distribution of goods and services is concerned. The allegedly much higher efficiency of a market economy compared to the bureaucratic planned economies of "actually existing socialism" is often invoked at this point. On a global scale, however, and capitalism can only be understood and judged globally, the distribution works both extremely badly and unfairly: those who already have a great deal get more all the time, while those who have almost nothing still live at the subsistence level and often are even pushed below it.

The capitalist economy, and with it most of the productive and creative potential of the workers, is far more concerned with constantly developing and marketing new delicacies for the wealthy middle and upper classes than with solving the basic problems of the world. Even in the imperialist centres, the standard of living of large sections of the working classes has tended to decline for decades.

The economic "rise" of the so-called emerging countries does not change this fundamental relationship. Countries such as Brazil, Mexico or India cannot overcome their structural dependence and subordination within the global economy. With a change in the economic environment, these countries quickly slide back into severe crisis, and the modest improvements for the working classes and petty bourgeoisie that are achieved in times of export boom are constantly at

stake (while the privileges of the elites are protected). To overcome the crisis, governments of these countries resort to the tried and tested means of intensifying exploitation and exports at the expense of workers, smallholders, traditional populations and, last but not least and related to this, the environment.

The big exception is China. As a result of unique political and economic circumstances, the country has even managed to rise into the chosen circle of imperialist countries. China has systematically worked to develop, consolidate and promote productive sectors and industrial development in its own country.

At the same time, the development of Chinese capitalism has been accompanied by environmental destruction and degradation, the extent of which in such a short time span is probably unique in human history. Today, China itself has begun to work on exporting capital and negative socio-ecological impacts to other countries and regions, even if it has not yet reached the level of the classic imperialist countries.

The necessity to permanently increase the accumulation of capital causes capitalism on the one hand to constantly revolutionise and on the other to expand. This has never been better summed up than in the Communist Manifesto: "The bourgeoisie cannot exist without continuously revolutionising the instruments of production, i.e. the relations of production, i.e. all social relations. On the other hand, the unchanged retention of the old mode of production was the first condition of existence of all former industrial classes. The continual revolution of production, the uninterrupted shaking of all social conditions, the eternal insecurity and movement distinguish the bourgeois epoch from all others. [...] The bourgeoisie's need for an ever-expanding sale of its products chases it all over the globe. Everywhere it must nest, grow everywhere, make connections everywhere." (Marx and Engels 1988 [Original: 1848], p. 48 f.)

As Lessenich (2016, p. 41 f.) notes, this need applies not only to new territories, but also to other possibilities of expanding the valorisation of capital, such as the extension to new sectors of the economy, to new groups and categories of persons integrated as workers in (worldwide) production chains, to the skills and characteristics of these workers, or to profitable new business fields such as genetic engineering or biotechnology.

The intensification of exploitation, to which capital is pushed to counteract the fall in profit rates, also means that it increasingly restructures the production process itself.

Initially, capital acts as the buyer of means of production and labour and then, at the end of the production process, it acts as the seller of finished goods. The compulsion to increase productivity, which is inherent within capital, pervades every step of the labour process and thus also the metabolic process with nature itself.

The working process is, so to speak, dismantled and reassembled in the light of science and technology (themselves developed within the capitalist framework) and according to the principle of valorisation. Thus, a comprehensive value chain is created from the low-cost acquisition of raw materials, through exploitative supplier companies, logistical optimisation of final production and intermediate transport to equally exploitative sales and delivery companies to the end customers.

In this intensification and application of science to the valorisation process, natural reproduction systems are seen essentially as cost factors to be minimised and sources for the expansion of production to be exploited in conformity with valorisation.

If the term "sustainability" is used here, it is only in so far as it does not significantly affect the overall cost targets and can then be used as a cheap marketing strategy. Of course, environmental legislation and brand image problems can lead to capitalists feeling obliged to react.

In this case, a certain form of productivity increase also temporarily freezes up for the competition, until corresponding loopholes have been found or achieved through relocation of production or changes in the law through lobbying etc.

Even if capitalism is historically characterised by subordinating undeveloped territories or areas to capital exploitation, this ?assignment of value? to previously unused resources for capital exploitation should not be seen as an absolute

feature: With reference to Rosa Luxemburg, reproductive theorists (especially feminist economists) claim that the continued accumulation of capital requires a permanent non-capitalist "outside" to make possible the reproduction of capital on an ever-increasing scale.

In contrast, Marx has shown in the second volume of "Capital" in the scheme of extended reproduction (Capital Vol. 2, p.565 ? 599, Pelican) that capital, when it reaches the limits of purely expansive growth, progresses by a change to intensive and even accelerated growth.

By investing in the expansion of production with the help of the described methods of incorporation under the principles of valorisation, capital simultaneously creates for itself the demand for the increasing accumulation of capital.

In this way new, non-capitalist areas are given a value and developed for extensive accumulation (e.g. raw materials, types of work, techniques, etc., which were not previously of interest for capital valorisation). Thus the "limit" of capital expansion shifts anew in each capital cycle, capitalism repeatedly redefines the "outside" for itself.

The acceleration in capital accumulation has historically been linked to the consumption of an ever-increasing amount of raw materials and energy. There are discussions on the possibility for highly developed capitalist economies to decouple economic growth, that is, capital accumulation, from the increasing consumption of resources and energy.

At first glance, the mechanisms of imperialism even seem to have succeeded in decoupling some advanced economies. In Germany, for example, primary energy consumption and direct resource consumption, the so-called abiotic direct use of materials, have been declining since 1990, while gross domestic product is rising.

However, abiotic direct material input does not include resources extracted and processed abroad to produce semi-finished or finished goods imported into Germany. If these are included, the picture changes. Between 1994 and 2015, imports of finished goods increased by 109 percent, while imports of semi-finished goods increased by only 12 percent.

Imports of raw materials increased by 23 percent. In the same period, energy production in Germany fell by 30 percent, while imports increased by 43 percent. Imports of ores and their products (mainly metal goods) also increased by 46 percent, while, for example, domestic extraction of mineral construction raw materials fell by 34 percent (Umweltbundesamt 2017b).

The Federal Environment Agency concludes: "The sharp increases in finished goods apply equally to metallic goods and to products made from fossil fuels, such as plastics. With the increasing import of finished goods, raw material-intensive manufacturing processes, including the mostly considerable environmental impacts of raw material extraction and processing, are increasingly being shifted abroad." (ibid.)

If imports and exports are included in the calculations, which is the case in the raw material consumption indicator, then this is not only significantly higher for Germany than the direct use of materials but has also increased by approximately 2 percent between 2000 and 2011. Since GDP grew much more in the same period, the so-called total raw material productivity (relative decoupling) increased, but absolute decoupling was not achieved. Unfortunately, the UBA does not provide any analogous statistics for energy consumption for Germany, taking imports and exports into account.

Under capitalism, nature appears solely as a resource for increasing capital, a necessary variable in the accumulation process. In classical bourgeois economics as well as in neo-classics, natural resources and sinks are assumed to be "free gifts" to be exploited (Foster et al. 2010. p. 61). Marx, too, has often been accused of using his economic theory to reduce the value of a commodity purely to the human labour it contains, thus ignoring the ecological basis of the economy. Foster et al (2010, p. 61 f.) have shown that this accusation is based on a confusion of value and wealth, which are used as synonyms in bourgeois economics.

But not so with Marx: ?When man engages in production, he can only proceed as nature does herself, i.e. he can only

change the form of the materials. Furthermore, even in this work of modification he is constantly helped by natural forces. Labour is therefore not the only source of material wealth, i.e. of the use-values it produces. As William Petty says, labour is the father of material wealth, the earth is its mother.? (Capital Vol 1, p. 134, Pelican) this was the sense in which Marx criticised the SPD's Gotha Programme and its assertion that work is the source of all wealth: "Work is not the source of all wealth. Nature is just as much the source of use values (and it is surely of such that material wealth consists!) as labour which itself is only the manifestation of a force of nature, human labour power. (Marx, Selected Works Vol 3, p 13 emphasis in the original).

There is no doubt that capitalism has been very successful in producing use values on a large scale and, in this sense, is a great historical advance over pre-capitalist forms of production. It laid the foundation for overcoming material scarcity and hardship in the world for all people. But with the increasing development of capitalism, a fundamental mismatch between use values and exchange values developed.

The latter are increasingly produced and manufactured at the expense of the former. For example, the increasing mass production of meat for a purchasing-powerful minority leads to an enormous mass of profits for the increasingly monopolised producers, but causes immense damage to society as a whole, as it is accompanied by increasing environmental destruction and extreme exploitation of humans and animals, and does not reduce but even exacerbate the hunger of a large part of humanity. Even more obvious is this inverse relationship between use value and exchange value, for example, in arms production.

This imbalance would not change in the new green economy. In order to achieve a sustainable economy, however, it must be overcome. That is impossible in capitalism. Through the permanent increase in capital accumulation it is first of all ensured generally that the profit on capital can permanently increase (even if particular capitalists can of course fall by the wayside). Secondly, through this the mechanisms of environmental imperialism are maintained.

The so-called "post-growth theories" wrongly assume that the compulsion to accumulate capital within capitalism can be overcome. What they ignore is that without a permanent increase in capital accumulation, capitalism would cause even more mass unemployment and mass poverty, even and especially in the imperialist centres. Thus, in capitalism, even with increasing capital accumulation, unemployment can arise or increase, for example, through automation and rationalisation. Growth is not a sufficient condition to ensure reducing unemployment, but it is a necessary precondition within the context of the system.

In connection with this, capitalism views the increase in people's ability to consume as the only way to improve their quality of life. While the increasing production of mass consumer goods was initially a significant advance over pre-capitalist production methods, for example to ensure the food security of the population and increase its standard of living, it has now turned into an absurd fetish.

While education, health care and culture are either neglected (education), degenerate (culture) or are themselves largely privatised (health), in many countries, shopping malls are springing up and are glorified as the epitome of progress.

The compulsion to permanent accumulation of capital is a structural reason why no sustainable mode of production is possible under capitalism. "To whom enough is too little, nothing is enough", the ancient philosopher Epicurus of Samos stated in the 4th century before our time. But this compulsion not only leads to an ever-increasing consumption of material and energy, while at the same time elementary human needs are not satisfied, but also to fundamental breaks in the natural and social material cycles.

Marx, inspired by the works of the German chemist Justus von Liebig, had already recognised that capitalist agriculture is not sustainable: "And every progress of capitalist agriculture is not only a progress in the art of robbing the worker, but in the art of robbing the soil, all progress in increasing the fertility of the soil for a given time is a progress towards ruining the more long-lasting sources of that fertility. The more a country, proceeds from large scale industry as the background of its development, as in the case of the United States, the more rapid is this process of destruction. Capitalist production therefore only develops the techniques and degree of combination of the social process of

production by simultaneously undermining the original sources of all wealth: the soil and the worker.? (Capital, Vol. 1, p. 638 Pelican)

In earlier societies, the nutrients from agriculture were largely returned to the soil. In capitalism, however, a "rift" has arisen in this cycle: "On the other hand, large landed property reduces the agricultural population to an ever decreasing minimum and confronts it with an ever growing industrial population crammed together in large towns; in this way it produces conditions that provoke an irreparable rift in the interdependent process of social metabolism a metabolism prescribed by the natural laws of life itself. The result of this is a squandering of the vitality of the soil, which is carried by trade far beyond the bounds of a single country. (Marx, Capital, Volume 3, p. 949 Pelican)

The increasing exhaustion and the loss of fertility of the soil was countered with the invention of artificial fertiliser in the Haber-Bosch process (technical synthesis of ammonia as a raw material), which heralded the age of the expansion of capitalist agriculture. Many neo-classical critics therefore argue that the argument of the "incurable rift" in agriculture is outdated. But reality has now caught up with the critics.

Although industrial agriculture has achieved increases in production in the short and medium term, in the long term it leads to many enormous ecological and social problems due to the permanent over-fertilisation of the soil caused by industrial fertilisers and the concentration of animal excrements in large industrial enterprises, the ever-increasing use of pesticides in agriculture and antibiotics in animal farming, as well as the greenhouse gas emissions caused by the production of industrial fertilisers.

The loss of fertile soils is today an increasing socio-ecological problem in many parts of the world (cf. Fritz 2010). Foster et al (2010, p. 78) argue that the "rift" in the nutrient cycle of agriculture has not been overcome but rather shifted - in this case through mass use and the resulting dependence on fossil fuels necessary to produce fertilisers.

They also point out that this principle applies not only to agriculture, but to the entire capitalist mode of production, and, following Marx, speak of an ecological rift in capitalism. The logic of capital and the permanent competition and expansion "[...] lead to a series of cracks and displacements, where cracks in the metabolism are created continuously and are countered by the displacement to other cracks - typically only after they have reached the scale of a crisis.

It may seem to a short-sighted observer that capitalism is successfully addressing some environmental problems at some point in time when a crisis is being mitigated. However, a more farsighted observer will see that new crises emerge where old ones are supposedly solved. This is inevitable as capital is forced to a constant expansion."

Therefore, the solution of the ecological question is closely linked to overcoming capitalism. The creation of a perspective for a socialist social order capable of overcoming these fundamental contradictions between the human economy and natural conditions, while satisfying the material and immaterial needs of all human beings, is the central challenge for revolutionaries in the 21st century.

Bibliography

Altwater, Elmar (2009): Das Ende des Kapitalismus, wie wir ihn kennen, 6. Auflage, Münster 2009, Westfälisches Dampfboot

Brand, Ulrich/Wissen, Markus (2017): Imperiale Lebensweise ? Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus, München 2017, Oekom Verlag

Jara, Emiliano Castillo (2011): El conflicto socio ambiental en el Corredor Eólico del Istmo de Tehuantepec, América Latina en Movimiento, online 23.6.2011: <https://www.alainet.org/es/active/47547> [1] (04.01.2018)

Unmüßig, Barbara/Fatheuer, Thomas/Fuhr, Lili: Kritik der grünen Ökonomie, München (2015), Oekom Verlag

Feenberg, Andrew (1992): Subversive rationalization: technology, power and democracy, in Inquiry, 35: 3/4, 301-322#

Ders. (1999): Questioning Technology, New York/London 1999, Routledge

Fischer G et al. (2017): Quantifying the land footprint of Germany and the EU using a hybrid accounting model, Umweltbundesamt

Foster J B, Clark B, York R (2010): The Ecological Rift ? Capitalism's War on the Earth, New York: Monthly Review Press

Foster J B, Hollemann H (2014): The Theory of Unequal Ecological Exchange: a Marx-Odum Dialectic, The Journal of Peasant Studies, Vol.41, Nr.2, 199 ? 233

Fritz T (2010): Peak Soil ? Die globale Jagd nach Land, Berlin: FDCL-Verlag

Herre R (2017): Rohstoffe ? Die zweite Ernte der Agrarhändler, in Konzernatlas ? Daten und Fakten über die Lebensmittelindustrie, Heinrich-Böll-Stiftung u.a. (Hrsg.), 2. Auflage 2017

Hess C, Ribeiro W C, Wieprecht S (2016): Assessing Environmental Justice in Large Hydropower Projects: The Case of Sao Luiz do Tapajós in Brazil, Desenvolvimento e Meio Ambiente, Vol. 37, May 2016, 91-109

Hess C, Fenrich E (2017): Socio-environmental conflicts on hydropower: The Sao Luiz do Tapajós project in Brazil, Environmental Science and Policy 73 (2017), 20-28

Howard M C, King J E (1992): A History of Marxian Economics, Volume II, 1929 ? 1990, Hampshire: Macmillan Education Ltd

IEA ? International Energy Agency (2017): Electricity Information: Overview, [online]
<https://www.iea.org/publications/freepublications/publication/Electricit...> [2] (28.07.2017)

Jorgensen A K, Rice J (2005): Structural Dynamics of International Trade and Material Consumption: A Cross-National Study of the Ecological Footprints of Less-Developed Countries, Journal of World-Systems Research, XI, I, July 2005, 57-77

Lenin W I (1975) [Original: 1917]: Der Imperialismus als höchstes Stadium des Kapitalismus, Berlin: Dietz-Verlag, 15.Auflage

Lessenich S (2016): Neben uns die Sintflut, Verlag Hanser Berlin

Martínez Alier J (2007): O Ecologismo dos Pobres, 2. Auflage, Sao Paulo: Verlag Contexto

Marx K (1968) [Original: 1867]: Das Kapital, Band 1, in Karl Marx ? Friedrich Engels ? Werke, Band 23, Dietz Verlag, Berlin/DDR, http://www.mlwerke.de/me/me23/me23_000.htm [3]

Marx K (1973) [Original: 1875]: Kritik des Gothaer Programms, in Karl Marx/Friedrich Engels ? Werke, Band 19, Dietz Verlag, Berlin/DDR, S. 13-32

Marx K (1983) [Original: 1894]: Das Kapital, Band 3, in Karl Marx ? Friedrich Engels ? Werke, Band 25, Dietz Verlag, Berlin/DDR, http://www.mlwerke.de/me/me25/me25_000.htm [4]

Marx K und Engels F (1988) [Original: 1848] Manifest der Kommunistischen Partei, Berlin: Dietz-Verlag, 55. Auflage

Maughan T (2015): The dystopian lake filled by the world's tech lust, BBC,
<http://www.bbc.com/future/story/20150402-the-worst-place-on-earth> [5] (04.01.2018)

Meadows D H, Meadows D L, Randers J, Behrens W W (1972): The Limits to Growth, Universe Books

Mendonça R et al. (2012): Greenhouse Gas Emissions from Hydroelectric Reservoirs: What Knowledge Do We Have and What is Lacking?, in Liu G (ed.) (2012): Greenhouse Gases ? Emission, Measurement and Management, InTech, [online]

<http://www.intechopen.com/books/greenhouse-gases-emission-measurement-an...> [6] (04.01.2018)

Sablowski T (2018): Warum die imperiale Lebensweise die Klassenfrage ausblenden muss, <https://www.zeitschrift-luxemburg.de/warum-die-imperiale-lebensweise-die...> [7]

Schenk M (2012): Oaxaca: Windkraftanlagen verstärken Landkonflikte, Amerika 21, [online]

<https://amerika21.de/nachrichten/2012/05/52258/windkraft-oaxaca> [8] (04.01.2018)

Statistisches Bundesamt (2017): Zahlen und Fakten, [online]

<https://www.destatis.de/DE/ZahlenFakten/ZahlenFakten.html> [9] (04.01.2017)

Tagesschau (2018): Importstopp ? China will Europas Müll nicht mehr <http://www.tagesschau.de/ausland/muell-china-103.html> [10] (05.01.2018)

Transport and Environment (ohne Datum): Biofuels, <https://www.transportenvironment.org/what-we-do/biofuels> [11] (04.01.2019)

Umweltbundesamt (2017a): Land-Fußabdruck: Wieviel Landfläche benötigt Deutschlands Konsum?,

<https://www.umweltbundesamt.de/themen/land-fussabdruck-wieviel-landflaech...> [12] (04.01.2018)

Umweltbundesamt (2017b): Rohstoffproduktivität <https://www.umweltbundesamt.de/daten/ressourcen-abfall/rohstoffe-als-res...> [13] (14.01.2018)

WCED ? World Commission on Environment and Development (1987): Report of the World Commission on Environment and Development: Our Common Future, <http://www.un-documents.net/our-common-future.pdf> [14] (28.07.2017)

Source URL: <https://fifthinternational.org/content/capitalism-kills-imperialism-capitalism-and-destruction-humanity-and-nature>

Links:

[1] <https://www.alainet.org/es/active/47547>

[2] <https://www.iea.org/publications/freepublications/publication/ElectricityInformation2017Overview.pdf>

[3] http://www.mlwerke.de/me/me23/me23_000.htm

[4] http://www.mlwerke.de/me/me25/me25_000.htm

[5] <http://www.bbc.com/future/story/20150402-the-worst-place-on-earth>

[6] <http://www.intechopen.com/books/greenhouse-gases-emission-measurement-and-management/greenhouse-gas-emissions-from-hydroelectric-reservoirs-what-do-we-have-and-what-is-lacking->

[7] <https://www.zeitschrift-luxemburg.de/warum-die-imperiale-lebensweise-die-klassenfrage-ausblenden-muss/>

[8] <https://amerika21.de/nachrichten/2012/05/52258/windkraft-oaxaca>

[9] <https://www.destatis.de/DE/ZahlenFakten/ZahlenFakten.html>

[10] <http://www.tagesschau.de/ausland/muell-china-103.html>

[11] <https://www.transportenvironment.org/what-we-do/biofuels>

[12] <https://www.umweltbundesamt.de/themen/land-fussabdruck-wieviel-landflaech-benoetigt>

[13] <https://www.umweltbundesamt.de/daten/ressourcen-abfall/rohstoffe-als-ressource/rohstoffproduktivitaet#textpart-1>

[14] <http://www.un-documents.net/our-common-future.pdf>